

**Response to Comment Document  
For Comments Submitted in Response to  
EPA's August 22, 2006  
Proposed Revisions  
to 40 CFR Parts 72 and 75**

**Docket No. EPA-HQ-OAR-2005-0132**

November 29, 2007



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## 1. General Issues

### **Comment A: Generally supports proposed rule.**

- (1) The commenter appreciates and fully supports EPA's willingness to consider changes that provide additional flexibility, reduce costs, or otherwise make it easier for sources to comply with monitoring and reporting requirements.

Commenter: NRECA, EPA-HQ-OAR-2005-0132-0061, p. 3

- (2) The commenter generally supports the changes proposed by the Agency.

Commenter: Clean Air Engineering, EPA-HQ-OAR-2005-0132-0075, p. 1

- (3) The commenter generally supports the proposed rule revisions to the extent that they streamline and synchronize multiple sets of federal rules.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 1

- (4) The commenter applauds EPA's efforts to simplify QA requirements for subpart H-only sources.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 3

- (5) The commenter supports proposed modifications to the Capacity Factor definition.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 2

Response (1) – (5): No response required.

### **Comment B: EPA should ensure that the proposed changes are not too costly.**

- (1) The commenter urges EPA to revisit its proposed changes to minimize any increased costs to the maximum extent possible.

Commenter: NRECA, EPA-HQ-OAR-2005-0132-0061, p. 3

Response: In general, EPA agrees that the costs related to changes to Part 75 should be minimized to the extent possible, and did consider such when proposing these rule revisions. The Agency considers the economic impact of this rulemaking to be relatively insignificant, and believes that many of the revisions will prove to be economically beneficial to the regulated community.

## 2. General Monitoring Provisions

### 2.1 Testing and Data Validation

**Comment A: EPA should clarify why the failure of a calibration error test on one range should affect the validity of data recorded on the other range.**

- (1) EPA proposes to require successful completion of a calibration error test on both ranges before the monitor is considered no longer out of control, and distinguishes the failure of a test from the expiration of the period of data validation, which should not invalidate data on the expired range. Commenters do not understand why the failure of a test on one range should affect the validity of data recorded on the other range. Commenters provide additional discussion on this issue and request that EPA provide an explanation and technical support for the proposal. More specifically, EPA should more fully explain and support the technical basis for proposed changes to calibration error tests in 40 CFR Appendix B, §§ 2.1.1 and 2.1.5.1 and Appendix A, § 2.2.3(e).

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 29-30, p.RMB7; APPA, EPA-HQ-OAR-2005-0132-0081, p. 27

Response: With respect to daily calibration error tests, an out-of-control period occurs when the calibration error of a pollutant concentration monitor exceeds the applicable specification in section 2.1.4 of appendix B to part 75 (See, 75.24(a)(1)). EPA's proposal to require the successful completion of a calibration error test on both ranges of a single monitor with two measurement scales to resolve an out-of-control period for the monitor did not reflect a change in Agency policy. Rather, EPA's proposal intended to: (1) clarify the existing requirement that each range of a dual-range analyzer be in-control in order to validate data from that monitor; and (2) provide added flexibility (consistent with the existing data validation provisions for linearity checks) to units using dual range monitors. Therefore, these provisions have been finalized as proposed. The final rule allows data to be considered valid from a particular measurement range that has passed a calibration error check when the calibration error test for the other measurement range has expired. In such instances, since there is no indication that the monitor is not functioning properly, and since there is evidence that the measurement range being used is properly calibrated, EPA is allowing that range to be considered quality assured. However, whenever a monitor fails any required daily, quarterly, semi-annual or annual quality assurance test, regardless of range, EPA maintains that data from that monitor must be considered invalid until the required quality assurance tests are passed. A failure on either range of a dual range monitor indicates a problem developing with the monitor's ability to accurately measure emissions. While it is possible that in some instances, the problem causing the failure of a daily calibration error check on one range does not affect the accuracy of the monitor's measurements on the other range, it is far from certain. Therefore, the Agency's firm position is that whenever a calibration error test is failed on either measurement scale of a dual-range analyzer, it is necessary to calibrate both ranges following corrective actions (which usually involve adjustments to the monitor), to verify that the monitor is back in-control and is able to generate quality-assured data on both ranges.

**Comment B: EPA should modify the performance specifications with regard to mercury (Hg) calibration and ensure that the Hg linearity and system integrity checks are achievable based on current technology.**

- (1) In Appendix A, § 3.1 Calibration Error, for Hg calibration, it should state "Alternatively, if the span value is less than 20 µg/scm,....." This alternative as proposed is not consistent with the low emitter alternative for other CEMS. For NO<sub>x</sub>, 2.5 percent of span at 200 ppm is 5 ppm. At spans lower than 200 ppm, calibration performance locks at 5 ppm. For Hg, 5.0 percent of a 20 µg/scm span would equal the 1.0 µg/scm alternate specification. As currently stated, Hg analyzers spanned between 10 and 20 µg/scm would unfairly incur standard specifications from 0.5 to 1.0 µg/scm.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0068, p. 1

Response: EPA did not propose changes to the Hg calibration error specifications in section 3.1(c) of Appendix A. Therefore, this comment is outside the scope of this rulemaking, and requires no response. Nevertheless, the Agency notes that the commenter has apparently misunderstood that all mercury span values are expressed in multiples of 10 µg/scm. That is, the lowest allowable span value is 10 µg/scm, the next lowest span is 20 µg/scm, etc. The fact that there are no allowable Hg span values between 10 and 20 µg/scm invalidates the commenter's assertion that the performance specifications are unfair to analyzers spanned between 10 and 20 µg/scm and that the alternate performance specification should be allowed for these intermediate span values.

- (2) The commenter does not object to the idea of making the Hg linearity check limits as stringent as the system integrity check, but it believes strongly that the limits should be achievable based on the current technology. The commenter states that EPA should continue to use the 10 percent of reference tag and 1.0 µg/m<sup>3</sup> difference for both linearity and system integrity tests, until the data supports lowering the standards to the proposed 5.0 percent of span and 0.6 µg/m<sup>3</sup> differences. The commenter provides additional discussion to support their assertion on this issue.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 7

Response: EPA has incorporated the commenter's recommendation, in part. Based on an analysis of data from two recent field studies in which elemental and oxidized Hg calibration gases were injected into commercially-available Hg CEMS, the Agency has concluded that equalizing the performance specifications for linearity checks and system integrity checks of Hg monitors at 10.0 percent of the reference gas value, with an alternate specification of 0.8 µg/m<sup>3</sup> absolute difference, is appropriate. The rationale for these specifications is presented in the Preamble.

- (3) Commenters support EPA's proposal to modify the specification on the Hg CEMS linearity and system integrity checks to make them the same, except that the alternative specification for both checks should be +/-1.0µg/m<sup>3</sup> rather than the +/-0.6 µg/m<sup>3</sup> proposed. There is no evidence that the 0.6 specification can be routinely achieved and EPA provides no data in the docket to support this value.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 11 and p.RMB5; APPA, EPA-HQ-OAR-2005-0132-0081, p. 13

Response: See response to comment 2.1B(2), above.

- (4) Commenter disagrees with EPA's lack of data analysis and eagerness to tighten the calibration standards for Hg monitors. The performance specification of 5.0 percent of span for a Hg concentration monitor is too stringent at this time. To date, no commercially available Hg monitoring system has passed any calibrations with a NIST traceable Hg calibration gas, since NIST has yet to publish its traceability requirements. Reliant is currently evaluating Hg CEMS, and has yet to achieve this level of performance.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 5

Response: See response to comment 2.1B(2), above.

- (5) Mercury linearity check limits should be as stringent as the system integrity check, with achievable limits based on the current technology. Since no NIST traceable Hg calibration data is available for EPA to make this assessment, commenter recommends that EPA continue to use the 10 percent of reference tag and  $1.0 \mu\text{g}/\text{m}^3$  difference for both linearity and system integrity tests, until the data supports lowering the standards to the proposed 5.0 percent of span and  $0.6 \mu\text{g}/\text{m}^3$  differences. The Hg calibration data collected during 2009 should be used to make this assessment prior to program implementation in 2010.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 5

Response: See response to comment 2.1B(2), above.

- (6) Commenters support the addition of the alternative specification for the system integrity check, and would not object to changing the other specifications if those changes were supported by data. EPA needs to provide data to support the proposed specifications, particularly given the significance of failing such a test and invalidating data.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p.11; APPA, EPA-HQ-OAR-2005-0132-0081, p. 13

Response: See response to comment 2.1B(2), above.

**Comment C: EPA should allow for Hg monitors with a converter to calibrate with both Hg and HgCl<sub>2</sub>.**

- (1) Regarding the following statement in Appendix A, § 2.2.3 Mercury Monitors: "Design and equip each mercury monitor to permit the introduction of known concentrations of elemental Hg and HgCl<sub>2</sub> separately ....", it does not appear that Hg monitors with a converter must calibrate with both Hg and HgCl<sub>2</sub>. Such a monitor could perform daily

calibrations (e.g., daily system integrity checks) with HgCl<sub>2</sub>, so that no weekly 1-pt system integrity check is required (Appendix B, § 2.6). Quarterly QA could be satisfied with a 3-pt system integrity check with HgCl<sub>2</sub> (instead of a linearity with elemental Hg) (Appendix B, § 2.2.1). Commenter requests that EPA add flexibility in this paragraph to allow this possibility.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0068, p. 1

Response: EPA did not propose to amend section 2.2.3 of Appendix A. Therefore, these comments are outside the scope of this rulemaking and no response is required. Nevertheless, the Agency notes that commenter has apparently misunderstood that the rule already allows sources the flexibility of performing quarterly 3-level system integrity checks with oxidized Hg, in lieu of performing linearity checks with elemental Hg. Daily calibrations may also be performed using oxidized Hg. Despite this, if an Hg CEMS has a converter, the monitoring system must be designed to allow the injection of elemental Hg, because a linearity check using elemental Hg standards is required for initial certification and for recertification of the system.

**Comment D: EPA should modify the provisions associated with off-line calibration error tests in Appendix B, § 2.1.5.1.**

(1) EPA offers no technical or policy rationale for the new limitation on the existing off-line calibration rule other than to assert that this new limitation is a clarification of EPA's intent. However, this revision is a much more limited rule that is confusing and inconsistent with previous EPA staff interpretations. As an alternative, EPA should state in section 2.1.5.1(2) that each off-line calibration only validates data for 26 clock hours. Any approach that ends the data validation window based on a period of non-operation must include a grace period upon unit startup to allow the unit an opportunity to conduct an on-line test before data are deemed invalid. Commenters provide additional discussion in support of their position.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 30-33; APPA, EPA-HQ-OAR-2005-0132-0081, p. 28-29

Response: EPA never intended for the data validation sequence to be broken due to non-operation of the unit, although the Agency agrees that the proposed wording referring to a “sequence of consecutive operating hours” can be misinterpreted. EPA’s intent was simply to clarify the existing procedures for using off-line calibrations to validate CEMS data. That is, a source that wishes to use the off-line calibration provisions in paragraph (2) of Appendix B, section 2.1.5.1 must first pass the off-line calibration demonstration described in section 2.1.1.2. After successfully completing this demonstration, off-line calibrations may be used on a limited basis for data validation. In particular, off-line calibrations may be used to validate data for up to 26 consecutive unit operating hours following a passed on-line calibration error test. The term “consecutive unit operating hours” does not mean consecutive clock hours. For example, two consecutive unit operating hours could be separated by several hours, days, weeks, etc., due to a unit outage. Each off-line calibration error test has the same prospective, 26 clock hour

window of data validation as an on-line calibration error test. Therefore, for a source that has passed the off-line calibration demonstration, EPA considers the data for a particular operating hour to be valid if there is a passed off-line calibration within the 26 clock hours immediately preceding that operating hour, and a passed on-line calibration within the 26 unit operating hours preceding that operating hour. EPA has revised the proposed rule language to clarify these requirements. For each hour of unit operation, EPA will use these criteria to evaluate each monitoring system's control status with respect to daily calibrations.

- (2) There is ongoing confusion regarding the use and application of off-line calibration error tests, and the subsequent data validation period(s). The revised text in Appendix B, sections 2.1.1.2 and 2.1.5.1, only adds additional confusion and would make the off-line calibration procedure virtually useless for peaking units. EPA should add an additional section to this rule that allows CEMS users, as an option, to perform an off-line and on-line calibration "closely" after one another (for example, within 4 hours instead of 26) to demonstrate that analyzer performance is not affected by the operational status of the unit. The RMB Consulting memo (provided as an attachment to the UARG letter) provides additional discussion to support this recommendation.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB8-9; APPA, EPA-HQ-OAR-2005-0132-0081, p. 28-29

Response: See the response to Comment 2.1 D(1) above, regarding the apparent confusion introduced by EPA's proposed revisions to section 2.1.5.1 of Appendix B. Regarding the commenter's request for EPA to allow sources to perform the off-line and on-line calibrations required for the demonstration more closely together than 26 clock hours, EPA notes that the current rule language already permits this. Specifically, the last sentence in paragraph (1) of Appendix B, section 2.1.1.2 specifies that the on-line portion of the off-line demonstration must be completed "within 26 clock hours of the completion of the off-line portion of the demonstration". Therefore sources are not required to wait 26 hours before completing the demonstration and may, as suggested, complete it within 4 hours.

- (3) Commenter recommends that the proposed change in Appendix B §§ 2.1.1.2 and 2.1.5.2 be modified to accommodate stack off-line instances as well as unit off-line scenarios. As more bypass stacks are in place with associated control devices, stack off-line scenarios will become more common. Without this recommended change, these provisions would require punitive data substitution until an on-line monitor calibration is completed successfully.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: The off-line calibration error provisions are intended primarily to be used by peaking units that have frequent periods of non-operation and generally operate for only a few hours at a time before shutting down again (many of these units are gas turbines). Without the off-line calibration provisions, such units might have to invalidate a significant percentage of their emissions data, as it is not always possible to get an on-line

calibration done during unit operation. However, it appears that the commenter's recommendation to revise sections 2.1.1.2 and 2.1.5.2 of Appendix B is not directed at these gas and oil-fired peaking units, but rather is referring to coal-fired boilers with wet scrubbers, that occasionally re-route their exhaust gases through bypass stacks during periods of control device malfunction or main stack maintenance. These units generally operate year-round, have high annual capacity factors, and use the bypass stacks infrequently. EPA does not believe it is unduly burdensome for on-line calibrations to be initiated shortly after the flue gases are redirected to the bypass stack. Therefore, the Agency disagrees with the commenter's assertion that it is necessary to extend the off-line calibration provisions to bypass stack situations to avoid "punitive data substitution", and has not made the requested rule change. .

- (4) The commenter cites to EPA's clarification of the regulations to allow off-line calibrations to be used to validate up to 26 consecutive unit operating hours of data before an on-line test is required. The commenter believes that it is possible to read the proposed validation criteria as providing that a failed start up of a unit would interrupt the unit's consecutive operating hours, thus making the data invalid. The commenter notes that the regulations should specify that failed start-ups of a unit do not affect the validity of an off-line calibration or the operation of the analyzers.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 7-8

Response: See the response to Comment 2.1 D(1) above.

- (5) Section 2.1.5.1 of Appendix B states that the off-line calibration demonstration validation has changed from data being out of control beginning with the 27<sup>th</sup> operating hour after the off-line calibration, to a validation of 26 consecutive unit-operating hours in a 26-clock hour validation window from the off-line calibration. Commenter believes that with the new validation criteria, a failed start-up of a unit would interrupt the unit's consecutive operating hours, making the data invalid. The commenter does not believe that failed start-ups should affect the validity of an off-line calibration or the operation of the analyzers.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 5

Response: See the response to Comment 2.1 D(1) above.

- (6) EPA should remove the "sequence of consecutive operating hours" from the proposed rules at 71 FR 49301, which affect 40 CFR Part 75, Appendix B, § 2.1.5.1(2). More specifically, the last two sentences in this section need to be revised or removed. The proposed requirement for an unbroken "sequence of consecutive operating hours" will produce incongruous results. If EPA's intent is to limit the number of clock hours that 26 consecutive unit operating hours can span, EPA should limit the span to a specific number of hours. This commenter provides additional discussion and examples as supporting documentation.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0055, p. 1-3

Response: See the response to Comment 2.1 D(1) above.

**Comment E: EPA should not revise the language in the current rule for off-line calibrations, since it provides relief to peaking units.**

(1) The current language provides relief to peaking units that operate infrequently or for short periods of time. The infrequent and short duration operation makes it difficult to perform on-line calibrations. EPA should clarify the current regulations rather than change them. Commenter provides additional discussion describing why complying with the revised language would be difficult for peaking units and also recommends that EPA continue issuing clarifications in the Part 75 Emissions Policy Manual.

Commenter: Dynegy Midwest Generation, Inc., EPA-HQ-OAR-2005-0132-0078, p. 1-2

Response: See the response to Comment 2.1 D(1) above.

**Comment F: Commenter suggests a modified "off-line demonstration procedure" to allow the 7-day drift test calibrations to be performed on either an off-line and/or on-line basis.**

(3) There has been considerable difficulty experienced with completing 7-day calibration error tests, since those tests are required to be performed while a given unit is operating. In some cases, particularly for sources that operate on an intermittent basis, 7-day tests can take several weeks to perform and one is left with meaningless data. This issue can be solved with the approval and implementation of the modified "off-line demonstration procedure" suggested by the commenter. If this recommended approach is taken, the 7-day drift test calibrations can then be performed on either an off-line and/or on-line basis, which would improve accuracy and cost-effectiveness.

Commenter: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB9

Response: EPA does not agree that it is necessary to allow the 7-day calibration error tests to be conducted off-line. Under the current rule, the 7-day calibration error test requirement for initial certification is waived for peaking units. This provision was added to the rule in June 2002, to address the very issue raised by the commenter, i.e., the difficulty of performing the 7-day test for units that seldom operate. Non-peaking units rarely, if ever, have difficulty completing an on-line 7-day calibration error test within the allotted window of time. Further, the 7-day test is required only for initial certification and for certain recertification events. EPA therefore does not believe that the current 7-day calibration error test requirements in Part 75 are unduly burdensome, and has not incorporated the commenter's suggestion.

**Comment G: EPA should clarify whether the 7-day calibration error test can be performed while the unit is off-line.**

- (1) Section 75.59(a)(1) lists the data to be collected for "all daily and 7-day calibration error tests, all daily system integrity checks... and all off-line calibration demonstrations..." Item (xi) specifies that an "indication of whether the unit is off-line or on-line" be recorded. Since all items apply to all test types listed in the opening sentence, there is an inference that the 7-day calibration error test can be performed while the unit is off-line. The commenter suggests that item (xi) be modified to specify the test types for which the requirement applies.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 3

Response: The 7-day calibration error test may not be performed off-line (see section 6.3.1 in Appendix A of Part 75). The paragraphs in §75.59 to which the commenter refers are simply data elements that must be reported in the Administrator's prescribed electronic format. The requirement to specify whether the unit is off-line or on-line during a particular test is intended to provide documentation that the test has been done according to the regulation. In the case of a 7-day calibration error test, EPA would expect the data element in subparagraph (xi) to indicate that the test was done on-line.

**Comment H: Supports the 30 ppm linearity exemption in § 6.2 of Appendix A, and requests additional clarification regarding SO<sub>2</sub> or NO<sub>x</sub> span values.**

- (1) Commenters further recommend that the Agency clarify that "recertification linearities" are exempt if the SO<sub>2</sub> or NO<sub>x</sub> span value is less than or equal to 30 ppm.

Commenters: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 6; Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 5

Response: In the final rule, EPA has clarified that for SO<sub>2</sub> and NO<sub>x</sub> span values  $\leq$  30 ppm, the exemption from linearity checks applies not only to initial certifications and on-going quality assurance, but to recertification testing, as well.

**Comment I: EPA should exempt units with seasonal controls and dual range analyzers from certain QA requirements.**

- (1) EPA's proposed revisions to Appendix A concerning the relationship between the QA status of the low and high ranges of a gas monitor in a dual span application includes a proposal to clarify that when a linearity check is failed or aborted on either range of a dual range analyzer, successful hands-off linearity checks of both ranges would be required to bring the unit back in control. The commenter recommends that the Agency exempt units with seasonal controls and dual range analyzers from this requirement.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 7

Response: EPA has not incorporated the commenters' suggestion into the final rule. The fact that a unit has add-on controls that are operated seasonally does not change EPA's position that a dual-range analyzer must pass calibration error tests on both ranges to

alleviate an out-of-control period for the monitor (see the response to Comment 2.1 A (1), above).

- (2) Section 2.2.3(e) of Appendix B states that for a dual-range analyzer, "hands-off" linearity checks must be passed on both measurement scales to end the out of control period. This section should have provisions to exempt units with seasonal controls and dual range analyzers from the requirement that both ranges need to pass a linearity check to end an out of control period as a result of a failed linearity test from the other range.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 6

Response: See response to Comment 2.1H(1), above.

**Comment J: EPA should incorporate additional flexibility provisions for ozone season only units.**

- (1) In order to accommodate restrictive schedules for multi-unit facilities and to provide necessary flexibility in managing resources, EPA should: 1) retain existing requirements as an option for multi-unit facilities that may be unable to accommodate preseason testing and third quarter testing within a single month, and 2) change the date for the third quarter check from July 30 to August 31 and allow the preseason linearity check to be conducted anytime in the period February through April.

Commenter: Eastman Chemical Company, EPA-HQ-OAR-2005-0132-0074, p. 2

Response: EPA does not agree that the revised quality assurance requirements for ozone season-only reporters are too restrictive. The proposed changes include provisions which allow sources to use conditional data validation to validate data in situations where the test cannot be completed prior to the prescribed deadline, due to non-operation or any other reason. Therefore, for the reasons stated in the preamble to the proposed rule, EPA has finalized the proposed revisions to the ozone season-only QA test requirements. The Agency notes that sources desiring added flexibility in scheduling quality assurance testing should consider switching to year-round reporting. Doing so would provide flexibilities such as grace periods, test deadline extensions, and in some cases, test exemptions, all of which are easily tracked and verifiable.

- (2) The commenter supports simplified second quarter linearity check but is concerned that new third quarter linearity check adds confusion.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB2-3

- (3) The commenter supports EPA's clarification of the existing rule, which should help facilities with units subject to the NO<sub>x</sub> Budget Trading only during the ozone season understand the applicable QA/QC requirements. Allowing the pre-season linearity (completed in April) to satisfy the requirement to conduct linearity testing during the Second Quarter, may also provide operators with certain cost savings, with no adverse

impact to the environment. However, EPA should incorporate additional flexibility in the timing of the linearity checks.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 2

Response: EPA appreciates the commenters' support for the proposed rule revisions, as expressed in Comments (2) and (3) above, and recognizes the commenters' concern regarding the possible data invalidation when the required QA tests are not completed according to the proposed schedule. However, as discussed in EPA's response to Comment 2.1 J(1) above, EPA believes that the proposed QA test schedule for ozone-season-only reporters is appropriate, and has finalized these provisions, as proposed. The Agency believes that the final rule addresses the commenters' concerns, in that it allows the use of conditional data validation, which provides a regulatory option for when tests are not completed by the prescribed deadlines. This provision is functionally similar to a grace period. It allows up to 168 operating hours after the test deadline to complete a missed linearity check and up to 720 operating hours to complete a missed RATA. If the required test is passed on the first attempt within the allotted window of time, there will be no loss of data. The rule also allows the required QA test(s) to be performed in October if the QA status of the data from a monitoring system is still conditionally valid at the end of the ozone season.

**Comment K: EPA needs to modify the 168 operating hour requirement for Hg CEMS single-point system integrity checks.**

(1) For Hg CEMS with converters that are using elemental Hg for daily calibrations, sources must conduct a single-point system integrity check at least once every 168 operating hours, but the rule does not address the consequences of a late test. The provision should address the consequences of a late test, but invalidating data starting with the 169<sup>th</sup> operating hour will not provide sufficient flexibility. The availability of qualified technicians, the potential for monitoring system breakdowns, and maintenance schedules may result in late tests. EPA should provide an operating hour grace period of at least 72 unit operating hours before data are invalidated.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 12-13; APPA, EPA-HQ-OAR-2005-0132-0081, p.13-14

(2) In Appendix B, § 2.6, EPA should establish a grace period of 96 hours when meeting the requirement for an Hg CEMS Integrity Check every 168 operating hours. This change would be consistent with all other quality assurance provisions that allow a reasonable grace period. Without a minimum grace period of 96 hours, commenter observes that based on their experience, technicians will run the check earlier to avoid the risk of missing the deadline. Once ran, these tests reset the clock so the next test is due even earlier in the week. Without the recommended 96 hour grace period, this proposed requirement essentially becomes "every 4 or 5 days" not every 7 days.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 5

- (3) A reasonably frequent oxidized Hg test should be performed, but the 168 operating hour requirement is extremely problematic since it is tied to operating hours. This requirement creates serious manpower and work flow scheduling problems. A weekly requirement combined with a grace period would be a more reasonable option.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 12-13 and p.RMB4; APPA, EPA-HQ-OAR-2005-0132-0081, p. 13-14

Response (1) – (3): EPA does not agree with the commenters' assertion that the 168 operating hour requirement will be difficult to track and that additional provisions, such as a grace period should be added. The number of operating hours since the last weekly system integrity check can (and should) be tracked by the DAHS. An alarm or prompt could be activated when the deadline for the next test is near (e.g., when 144 operating hours have elapsed since the last test). EPA favors basing the interval between successive tests on operating hours rather than clock hours in a week, primarily for reasons of simplicity. The Agency acknowledges that this is distinctly different from the way in which the deadlines for RATAs and linearity checks are determined. For a RATA or linearity check, the deadline is always at the end of a calendar quarter. Grace periods are provided for these tests because the deadlines can pass while the unit is either off-line or experiencing operational abnormalities that prevent the monitors from being tested on time. Also, a limited number of RATA deadline extensions and linearity check exemptions are provided for "non-QA operating quarters", i.e., calendar quarters in which the unit operates for < 168 hours. However, the required frequency for the system integrity checks of a mercury CEMS is weekly, not quarterly. This is the only weekly QA test required by Part 75. Therefore, the existing "QA operating quarter" model and grace period scheme cannot be directly applied to the system integrity check. A new concept, perhaps a "QA operating week" would have to be introduced and an appropriate grace period determined. EPA considered this approach and decided against it, believing that it would unnecessarily complicate the process of QA status tracking for Hg CEMS. The Agency believes that if the DAHS is programmed to track the number of unit operating hours since the last system integrity check and if an alert is provided to let plant personnel know when the test deadline is approaching, there will seldom, if ever be a missed test. Furthermore, the Agency believes that the weekly system integrity check could be automated so that during the 168<sup>th</sup> hour of operation since the last system integrity check, the check could be automatically initiated by the DAHS computer system or other appropriate programmable logic controller (PLC) systems. Such automation would further reduce the probability of a missed test.

**Comment L: Does not support EPA's proposal with regard to the elimination and consolidation of options for calibration gases.**

- (1) The fact that calibration gases may be more expensive or may not be widely used is no reason to revise the rule to prohibit their use without petition. The only question should be whether the gases meet EPA's accuracy specifications. The existing options should not be removed. However, the rule could be streamlined by removing the terms from the definition section and simply identifying the options in Appendix A, Section 5.1. Note

that 75.21(c) still requires all calibration gases to "meet the definition in 72.2." If EPA removes the term "calibration gas" from 72.2, the reference in 75.21 will need to be changed.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 28-29; APPA, EPA-HQ-OAR-2005-0132-0081, p. 25-26

**RESPONSE:** In the final rule, EPA has retained all of the acceptable alternative calibration standards and the original numbering scheme in Appendix A, section 5.1. The definitions of these standards in §72.2 have also been retained. Note, however, that the definition of "research gas material" has been removed from §72.2, because it was found to be redundant with the definition of "research gas mixture". Revisions to section 5.1.4 of Appendix A ("EPA Protocol Gases") and to the definition of "EPA protocol gas" in §72.2 have been finalized, as proposed. Finally, section 5.1.9 of Appendix A has been amended to clarify that elemental Hg standards must be NIST-traceable.

(2) On the specifications for Hg standards, EPA should require cylinder gas specifications and traceability standards to be as accurate as possible (without incurring unreasonable expense), which can only be determined by EPA and NIST. Finalization of these protocols are critical to the implementation of CAMR. Because oxidized Hg cannot be contained in a cylinder and NIST has yet to make available a traceability protocol for oxidized Hg generators, the rule is currently impossible to meet.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 27-29; APPA, EPA-HQ-OAR-2005-0132-0081, p. 25-26

Response: To meet the Hg monitoring requirements under CAMR, many sources will install and certify Hg CEMS. Section 5.1.9 in Appendix A to Part 75 requires that the elemental and oxidized Hg calibration gases used for initial certification and on-going QA testing of Hg CEMS be NIST traceable. However, this requirement cannot be met at the present time, because the traceability protocols for elemental and oxidized Hg gas standards are still under development. In view of this, EPA is temporarily waiving the NIST-traceability requirement for elemental and oxidized Hg calibration gas standards until January 1, 2010. Note that this waiver applies only to the NIST-traceability requirement for the Hg calibration gas standards. It does not defer the CAMR requirement for Hg monitoring systems to be installed and certified by January 1, 2009.

EPA and NIST are continuing their collaborative work to provide NIST traceability for elemental and oxidized mercury gas calibration standards. Internal draft methods for certifying elemental and oxidized mercury gas generators have been prepared and will be finalized in 2008. Additionally, the Agency expects to have NIST-traceable gas protocols prepared and available by the end of 2008.

**Comment M: EPA and NIST should compile the necessary data and analysis to determine the accuracy of Hg standards that can be achieved with existing equipment and procedures.**

- (1) In response to EPA's request for comment on the "appropriate accuracy specification to apply to Hg cylinder gases and other cylinder gases," it is not industry's responsibility to assume some accuracy specification. EPA and NIST should perform the necessary experiments and analysis to determine the accuracy of Hg standards that can be achieved with existing equipment and procedures. Commenter adds that any data and information related to this determination should be made available to the public for comment prior to finalization.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB2

Response: NIST, in collaboration with EPA, has been evaluating the stability of Hg cylinder gases and will be testing Hg gas cylinders to establish NIST traceability.

**Comment N: EPA should revise/clarify certain portions of the QA Procedures in Appendix B.**

- (1) QA/QC Procedures: Figure 1 to Appendix B -- Header -- Place a "\*" on "Weekly." Line 6 -- put a check under the weekly column. The "\*\*\*" note is the only place that a daily calibration with oxidized Hg is specifically called a (single-point) daily system integrity check. The deleted statement in Appendix B, § 2.1.1 should be used to make this distinction. The last sentence in Appendix B, § 2.6 should be updated accordingly.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0068, p. 1

Response: EPA has made the appropriate corrections in the final rule.

## 2.2 RATA Requirements

**Comment A: EPA should modify the RATA requirements for ozone season-only reporters under § 75.74(c).**

- (1) Consistent with the proposed revisions to § 75.74(c)(2)(i), the requirement to keep daily calibration error test and interference check results in a format suitable for inspection should be deleted from § 75.74(c)(2)(ii)(E)(1) since this is "difficult for EPA to assess."

Commenter: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB3

Response: EPA has not incorporated the commenter's suggestion to delete the requirement to keep the on-site records described in §§75.74(c)(2)(i)(C) and 75.74(c)(2)(ii)(E)(1). However, the Agency has removed from §75.74(c)(6)(iii) the requirement to include these records in the electronic quarterly report. Although the on-site records may be

“difficult for EPA to assess”, the records are necessary for sources to show that the CEMS were operated, maintained, and calibrated in the time period extending from the completion of the pre-season linearity check or RATA until the start of the ozone season. These records may be requested during a routine audit of an affected source.

**Comment B: EPA should revise the new § 75.15(l) to allow the use of data collected prior to the diagnostic RATA.**

- (1) Commenters question why data collected with the modified system prior to the RATA should not be valid, as long as no other changes are made to the system prior to passing the RATA. EPA should revise the new § 75.15(l) to allow the use of data collected prior to the diagnostic RATA, if the RATA is performed and passed without making any other changes to the system.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 6; APPA, EPA-HQ-OAR-2005-0132-0081, p. 6

Response: The commenters' suggestion has been incorporated into the final rule. Section 75.15(l) allows the data from the modified sorbent trap system to be considered conditionally valid according to §75.20(b)(3), for up to 720 unit or stack operating hours after switching to a new type of sorbent material. If the diagnostic RATA is passed within the 720 operating hour window, the data recorded by the modified system prior to the RATA may be reported as quality-assured. If the RATA is failed, no data from the modified system may be reported as quality-assured until a subsequent RATA is passed. If the diagnostic RATA is not completed within the allotted 720 operating hour window but is passed on the first attempt, data from the modified system are considered to be invalid from the first hour after the expiration of the 720 operating hour window until the completion of the RATA. Note that EPA has withdrawn the proposed requirement to perform a diagnostic RATA for a change in trap size. The additional RATA is required only when the type of sorbent material is changed.

**Comment C: Supports RATA grace period provisions.**

- (1) Commenters support the additional language proposed for § 2.3.3(c) of Appendix B and believe that it will make the regulation easier to understand.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 7; Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 5

Response: Based on the comments received and for the reasons stated in the preamble to the proposed rule, EPA has finalized this provision, as proposed.

**Comment D: The requirement that RATA for ozone season only reporters be performed either in the first quarter of the year or in the month of April (75.74(c)(2)(ii)(F)), is too restrictive.**

- (1) Commenter provides additional discussion and points to limitations associated with the weather and planned unit maintenance schedules. If EPA adds this provision, sources should be able to choose whether to comply with the existing or new requirements.

Commenter: Duke Energy Corporation, EPA-HQ-OAR-2005-0132-0066, p. 2

Response: For the reasons stated in the preamble to the proposed rule, EPA has finalized these provisions, as proposed. See the response to Comment 2.1 J(1), above.

**Comment E: EPA should provide additional flexibility for RATA testing with the Ontario Hydro (OH) Method and Method 29.**

- (1) Completing a RATA using paired-trains with the current Hg reference methods in 168 hours may be difficult. In addition, a RATA must be repeated if a daily calibration error test is failed during a RATA test period prior to completing the test. This occurrence is more likely for Hg than for RATAs on other CEMS. Restarting an Hg RATA that could take a week to complete would be burdensome. For these and other reasons, EPA should exempt OH Method and Method 29 from the 168 hour RATA testing limit (Appendix A, § 6.5(e)) and exempt Hg CEMS from the calibration error test failure provision (Appendix B, § 2.3.2(d)). Commenters provide additional discussion to support their position on this issue.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 15 and p.RMB7

Response: EPA has incorporated the commenters' suggestions, in part. Section 6.5(e) of Appendix A has been revised to allow up to 336 unit operating hours to complete a RATA when the Ontario Hydro (OH) Method or EPA Method 29 is used as the reference method. Section 2.3.2(d) of Appendix B has also been modified to allow RATA runs completed prior to a failed calibration error test to be kept, when the OH method or Method 29 is used. However, the RATA may not proceed until a subsequent calibration error test has been passed.

- (2) Commenter cites to Appendix B § 2.3.2(d), and recommends that the OH Method and Method 29 be exempt from the 168 hour testing limit and that Hg CEMS be exempt from the calibration error test failure provision. This is appropriate, because the amount of time needed to complete a RATA with these methods is much longer than the instrumental methods used for other gaseous pollutants. Completing paired-train RATA testing will be accomplished over a week or more, significantly increasing the opportunity to fail a routine daily calibration error check which would force restarting the Hg RATA.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 5

Response: See the response to Comment 2.2E(1), above.

**Comment F: EPA should retain the existing flexibility in timing for pre-season RATAs.**

- (1) The existing flexibility in timing should be retained for numerous reasons. The commenter notes that the Purdue utility plant is the only source of heating and cooling for the West Lafayette Campus. As such, Purdue schedules annual maintenance of the boilers during periods of low steam demand: the spring (March) and the fall (October) so that maintenance will not interfere with the plant's ability to supply steam to campus. Because RATAs need to be run at specific loads, Purdue schedules its RATAs late in the fall (November) so there is load available from campus, but the weather is not so cold that stack testing equipment freezes as several of the sampling ports are located outdoors on the stacks. Hence, the ability to RATA in the 4<sup>th</sup> quarter for the upcoming year makes operational sense to the plant.

Also, in conjunction with Purdue's RATAs, Purdue also schedules its Title V compliance tests during the same time so that only one mobilization fee is assessed by the stack testing company. These Title V tests are also run in the late November/early December timeframe to ensure load (Purdue has to run its boilers to design capacity for Title V compliance tests) but not overly cold temperatures. Again, the current ability to RATA during the late 4<sup>th</sup> quarter allows Purdue to get best value for the stack testing charges. This is not only a cost savings for Purdue, but a savings to Indiana taxpayers as well.

Finally, scheduling RATAs and Title V compliance tests in the late fall also allows Purdue flexibility on the exact timing of the tests so should a boiler not come out from outage at the exact date planned, the plant knows there will be load available in the upcoming weeks to accommodate timely testing.

For the above-stated reasons, Purdue asks that the Agency retain the ability to RATA in the 4<sup>th</sup> quarter of the year before the ozone season.

Commenter: Purdue University, EPA-HQ-OAR-2005-0132-0091, p. 1-2

Response: Sources that desire added flexibility in scheduling quality assurance testing should seriously consider switching to year-round reporting. Doing so would provide . flexibilities such as grace periods, test deadline extensions, and in some cases, test exemptions, all of which are easily tracked and verifiable. Therefore, for the reasons given in the preamble to the proposed rule, EPA has finalized the pre-ozone season RATA requirements, as proposed. See the response to Comment 2.1 J(1) above.

## **2.3 Low Mass Emission (LME) Units**

### **2.3.1 Mercury LME Issues**

#### **Comment A: Supports EPA's provisions for Hg LME sources.**

- (1) Commenter supports EPA's efforts for establishing regulations for low emitting Hg sources.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: No response required.

- (2) The commenter concurs with proposed alternative acceptance criterion for sources with low Hg emissions.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 1

Response: No response required.

**Comment B: EPA should provide additional flexibility with regard to the number of operating hours.**

- (1) Commenter states that in order to accommodate those units that have permit restrictions that prohibit them from operating 8,760 hours in a calendar year, Equation 1 under 75.81(c) should be changed to "either 8,760 per year or the number of operating hours per year as specified in a federally enforceable permit."

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: EPA has incorporated the commenter's suggestion into the final rule. Section 75.81(c) has been modified to allow the owner or operator to replace 8,760 hours in Equation 1 with "N", the maximum allowable number of annual unit operating hours specified in the unit's Federally-enforceable operating permit. To make use of this provision, the owner or operator must provide evidence of such a permit restriction as part of the LME certification application. If the permit restricts the annual unit heat input but not the unit operating hours, the owner or operator may divide the allowable annual heat input (mmBtu) by the design rated heat input capacity of the unit (mmBtu/hr) to determine the value of "N" in Equation 1.

**Comment C: Supports proposed revisions regarding Hg LME provisions for units sharing a common stack.**

- (1) Commenters strongly support proposed revisions regarding Hg low mass emission provisions for units sharing a common stack to require individual testing of units only for the initial demonstration, to allow testing of only one unit in a group of identical units, and to allow testing at the common stack for initial certification for units sharing a common control device. One commenter (APPA) notes that the use of the LME alternative is critical for state and municipal utilities to defray regulatory costs, which are Unfunded Mandates, which must be considered when setting regulatory policies and requirements.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 9-10; APPA, EPA-HQ-OAR-2005-0132-0081, p. 10-11

Response: EPA appreciates these supportive comments, and the proposed rule changes have been finalized. However, it must be clearly understood that the Agency did not propose to allow testing of only one unit in a group of identical units for all such groups. Rather,

the proposal was to allow the owner or operator of a group of identical units to test a representative subset of those units according to Table LM-4 in §75.19, in lieu of testing each unit individually. If there are only two identical units associated with the group, then the commenter would be correct in asserting that only one of the two units needs to be tested. However, if there are three to six identical units in the group, then at least two of the units would have to be tested, and three or more units would have to be tested if there are more than six units in the group. Finally, note that EPA did not intend to limit the testing of groups of identical units to units that share a common stack, but rather to model this Hg low mass unit testing provision after §75.19(c)(1)(iv)(B). This has been clarified in §§75.81(c)(1)(iv) and (e)(1)(i) of the final rule.

- (2) Commenter agrees with proposed changes to § 75.81(e) and also agrees with options afforded to various common stack configurations.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: No response required.

- (3) Consistent with common stack retesting requirements established in § 75.81(e)(1)(ii), § 75.81(d)(4)(iv) should allow for common stack testing after initial demonstration.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: The retest requirements for qualifying Hg low mass emission units are specified under §75.81(d)(4), subparagraphs (i) through (iv). EPA notes that there was a typographical error in proposed §75.81(e)(1)(ii), which referred to the retest requirements as being found in §75.81(d)(3) rather than §75.81(d)(4). For common stack configurations, §75.81(e)(1)(ii) allows all retests required by §75.81(d)(4) to be done at the common stack. Therefore, there is no need to restate this in paragraph (d)(4)(iv). The final rule also allows the initial demonstration testing to be performed at the common stack if certain conditions are met.

**Comment D: Suggests modifications to Hg LME provisions for units sharing a common stack.**

- (1) The commenter notes that identical boilers may not necessarily have the same stack emission or the same ratio of Hg in stack gas and fly ash and suggests that it may be more prudent to require that the initial testing on LMEs emitting through a combined stack be performed on each boiler, and only allow the reduced testing on a subset of units for the periodic testing. The commenter also suggests that for the periodic testing the sources be required to test a different unit each year.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 1

Response: EPA does not agree that it is necessary to test all of the units in a group of units that qualifies as identical under §75.19(c)(1)(iv)(B). The potential cost of testing all units in a large group of low-emitting, identical units does not justify the relatively small added

assurance gained by determining an exact emission rate for each individual unit. Nevertheless, the Agency agrees that for each successive retest of a group of identical units (particularly for the larger groups) it is good practice not to test the exact same subset of the units that was tested in the previous retest. The final rule incorporates the substance of the commenter's suggestion as a strong recommendation.

**Comment E: EPA should provide a clear description of the Hg LME provisions.**

- (1) EPA should place clearly written descriptions of the LME approach on the CAMD and TTN website and provide "webinar" or other low cost workshops that can be accessed from utilities nationwide. EPA should provide at least 60 days notice in advance of these "webinars" or conference calls to explain the LME alternative.

Commenter: APPA, EPA-HQ-OAR-2005-0132-0081, p. 11

Response: EPA has already provided a publicly-available description of the Hg low mass emissions methodology in the "Plain English Guide to the Part 75 Rule", which can be accessed on the Clean Air Markets Division web site. The Agency will be updating this document to reflect the changes to the Hg LME provisions associated with this rulemaking. EPA does not believe that the proposed "webinars" are necessary at this time, but is willing to reconsider if there is an increased demand for this type of outreach.

EPA is currently providing training workshops on various CAIR-CAMR implementation issues, including Hg LME, at several cities. These training workshops are free of charge and open to everyone. During 2007, EPA held workshops in Atlanta (Region 4), Chicago (Region 5), Dallas (Region 6), Kansas City (Region 7), Denver (Regions 8-10 for CAMR) and Washington, DC (Regions 1-3). To obtain additional information and presentations used at these workshops, please visit the CAMD Workshops Website at <http://www.epa.gov/airmarkets/workshops/index.html>

EPA is also looking at additional dates and channels to provide future training opportunities. Feel free to provide training ideas or suggestions to Edgar Mercado at [mercado.edgar@epa.gov](mailto:mercado.edgar@epa.gov)

**Comment F: EPA should allow re-evaluation testing for units that initially fail to qualify as LME.**

- (1) Under 75.81(c), EPA should expressly permit re-evaluation Hg testing for units that fail initial qualifying attempts for LME status. Laboratory analytical accuracy issues could be enough to disqualify an otherwise LME-qualifying unit and, thus, preclude its operation under this provision.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: EPA has not incorporated the commenter's suggestion into the final rule. Any time that emission testing is performed, there is a chance that the test may be done

improperly or, when wet chemical test methods are used, that there may be an incident in the laboratory that causes the test results to be invalidated. Certainly retesting may be done if either of these things is documented to have occurred. However, it is inappropriate for sources to perform multiple attempts to qualify for the low mass emissions option, hoping that one of the tests may come out favorably, and to arbitrarily declare non-qualifying test results as “suspect” or “anomalous”.

**Comment G: Disagrees with proposed approach for default emission rates.**

- (1) The specified default value of 0.5  $\mu$ /scm is too harsh with respect to those units that can operate at mercury emissions levels below 0.1  $\mu$ /scm, even down to 0.05  $\mu$ /scm. EPA should reconsider this default value and develop factors that are more specific to the expected emission levels of the source.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 4

Response: EPA has not incorporated the commenter’s suggestion into the final rule. Since the Hg low mass emitter option requires only periodic stack testing rather than continuous monitoring of Hg emissions, conservatively high default Hg emission factors must be used, to ensure that Hg emissions are not under-reported. The limit of detectability for the available Hg stack test methods varies from about 0.1 to 0.5  $\mu$ g/scm; the accuracy of measurements at these levels is somewhat questionable. Therefore, for the purposes of the Hg LME option, EPA has set the minimum default value conservatively at 0.5  $\mu$ g/scm.

- (2) Commenter cites to 75.81(c)(2) and 75.81(e)(1)(i)(c), and notes that to determine the default emission rate for LME using the highest test run of three, the Maximum Potential Flow and the maximum operating time is unduly punitive and inconsistent with the procedures of 75.19 for NO<sub>x</sub> and SO<sub>2</sub>. Because of uncertainties in the test methods, the average of the three runs should be used. The use of the maximum measured flow in the last 8,760 hours will still yield a very conservative result. Unit capacity factors as demonstrated over the past three years should also be considered instead of assuming 8,760 hours constitutes an operating calendar year.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: The commenter appears to be concerned that it is more difficult to qualify for the Hg low mass emitter option than for the LME option in §75.19 for SO<sub>2</sub> and NO<sub>x</sub>. This is certainly true, but there are good and sufficient reasons for the added stringency. Due to public concern over the hazardous nature of Hg and the need to document emissions reductions, the Agency believes that only units that have a very low potential to emit (i.e.,  $\leq 29$  lb/yr of Hg, based on 8,760 hours of operation per year and maximum stack gas flow rate every hour) should be allowed to account for Hg emissions using periodic stack testing in lieu of continuous monitoring. Therefore, EPA has not incorporated the commenter’s suggestions into the final rule. Nevertheless, in response to a suggestion by another commenter, the final rule allows the maximum number of annual unit operating hours specified in a Federally-enforceable operating permit to be substituted into

Equation 1 in §75.81(c), instead of assuming 8,760 hours of operation (see response to Comment 2.3.1B(1), above).

**Comment H: Disagrees with proposed revision to § 75.81(d)(4)(iv) which would require a retest for a change in fuel supply.**

- (1) The commenter generally supports EPA's proposed regulations for low emitting mercury sources. However, the commenter objects to the obligation that a retest be performed within 720 unit operating hours of a "change in fuel supply," as would be required under proposed § 75.81(d)(4). EPA has not clarified what constitutes a change in fuel supply. The rule language (see 71 FR 49268) suggests that the re-test requirement is not triggered by changes in coal type as long as the coal comes from the same mine. However, mercury concentrations in coal can vary within the same mine. As stated, "change in fuel supply" could create an arbitrary incentive for sources to continue buying coal from the same source, even if coal from other sources were available at lower prices, without necessarily ensuring the re-testing is keyed to changes in mercury concentrations. The cost of having to perform a re-test with every coal supply switch would hamper the efficient operation of the marketplace. The commenter provides additional discussion and suggests that EPA consider allowing sources to test for mercury content using as-fired coal samples in lieu of performing an OH retest to confirm LME status, which would reduce the financial burden on the source.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 5-6

Response: EPA has not incorporated the commenter's suggestions, but §75.81(d)(4) of the final rule clarifies what constitutes a "change in fuel supply" that will trigger LME retesting. If a unit switches to a different rank of coal as the primary fuel for the unit (e.g., changing from bituminous coal to lignite) in-between the scheduled LME retests (where coal rank is defined by ASTM D388-99) an additional LME retest is required within 720 operating hours of the change. The results of this retest are applied retrospectively back to the date and hour of the fuel switch. The ranks of anthracite coal refuse (culm) and bituminous coal refuse (gob) are considered to be anthracitic and bituminous, respectively.

- (2) The commenter is concerned that EPA's proposal to require units to test following a change in fuel supply will unreasonably burden units that periodically burn waste coal. The commenter suggests that EPA provide for an annual certification for all Title V permitted units that burn blended waste coal.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 3

Response: See response to Comment 2.3.1H(1), above

- (3) The term "fuel supply" is too broad and could be interpreted to require frequent and unnecessary retesting. In order to make Hg LME excepted methodology a viable option,

source owners/operators need to have certainty regarding what would trigger a retest, and criteria that would not result in retesting for each minor change in fuel. It is assumed that the intent is to require retesting only if a unit changes the rank of coal combusted as defined through ASTM. EPA should clarify the coal blending would not be considered a change in fuel supply unless a new rank of coal was added to the blend, or the proportion of the blend was significantly changed.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 10-11; APPA, EPA-HQ-OAR-2005-0132-0081, p. 11-12

Response: See response to Comment 2.3.1H(1), above

(4) A retest requirement within 720 unit operating hours would mean constant retesting in most public power utilities. EPA is not sufficiently aware of the difficulties in predicting fuel use given the current coal market and limitation in coal transport. EPA should consider the consequences of "captive rail" amongst many utilities including public power utilities where utilities burn whatever fuel they can obtain during rail transport limitations.

Commenter: APPA, EPA-HQ-OAR-2005-0132-0081, p. 11-12

Response: See response to Comment 2.3.1H(1), above

(5) The commenter disagrees with the proposed requirement for additional Hg retesting within 720 unit operating hours following a fuel change. Hg levels in the fuel vary in fuel from the same supplier and even the same seam. Based on testing at their coal units, commenter notes that for units with inherently low emissions, the fuel supply did not noticeably change emissions. Given frequent fuel supply changes, this requirement would be overly burdensome.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 2

Response: See response to Comment 2.3.1H(1), above

(6) Fuel (coal) supplies vary day to day in competitive wholesale power markets due to simple economic supply and demand principles. Commenter understands EPA's concerns with changing fuel supplies and the variation of Hg in coal, however, it has been proven that mercury concentrations in coal from the same mines (supplies) also can exhibit changes in mercury coal concentrations. Considering the previous history of the Part 75 LME program, great strides have been made to document proper operation of control devices (QA/QC requirement in section 75.19) used for purposes of allowing larger units to remain in an LME program. Understanding the principles of the control devices, and operating these devices to remain in compliance with other regulated pollutants, will help ease the uncertainty of whether or not a unit remains below the mercury LME thresholds from test to test, and varying fuel supplies.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: See response to Comment 2.3.1H(1), above

- (7) In addition, commenter recommends that as-fired coal samples be collected during all LME tests in order to document the variation of mercury in coal for Hg LME units. Collecting the as-fired fuel samples during LME testing will also help demonstrate that varying fuel supplies (mercury in coal concentrations) will not affect a unit's ability to meet the emission requirements.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: See response to Comment 2.3.1H(1), above

- (8) Commenter supports EPA's efforts in developing a method to identify when a retest is required, especially for units where fuel (coal) types change. However, commenter requests that EPA remove the words "fuel supply" and insert the words "coal fuel type". In addition, a new definition should be created to specifically define "coal fuel type". Coal Fuel Type – means a specific coal classification as defined by ASTM D388-99e1, see Appendix F, Table 1, F and Fc Factors. Then, the retest requirement should be tied to the requirements for changing an F Factor. If an F Factor changes because a coal or fuel type changes, and/or a mixture of fuels is burned, then this should be the trigger for a retest under the Hg LME program. This would be similar to the existing LME rule where numerous fuel types are listed in the monitoring plan with fuel specific LME emission rates. The current monitoring plan reporting structure does require a fuel type and F Factor to derive reported emission rates. By expanding this criteria for Hg LME sources, EPA can verify the proper emission rates are being applied when sources change coal fuel types and also ensure testing or retesting has occurred for that specific fuel type being combusted.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4-5

Response: See response to Comment 2.3.1H(1), above

- (9) The citation at 75.81(c)(1) introduces the term "same source of supply" and 75.81(d)(4) refers to a "change in the fuel supply." These terms are not defined and could be construed as being generally meaningless or so restrictive that they would prohibit compliance. Industry needs certainty regarding what change would trigger a retest and the criteria for making that determination. TVA feels a change in the coal rank (e.g., bituminous, sub-bituminous, lignite, coal refuse) would be an appropriate trigger.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: See response to Comment 2.3.1H(1), above

- (10) EPA should define the criteria that should be used to determine a fuel supply change. Also, EPA should allow sources to discontinue using any coal that is found to exceed the LME status criteria, so that they could exclude those test run data. Unknowns about Hg

characteristics and the possibility of losing LME status would discourage trying new fuel sources that could otherwise be advantageous.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 3

Response: See response to Comment 2.3.1H(1), above

**Comment I: Tracking "loss on ignition" (LOI) for Low-Mass Emitters is important.**

(1) Tracking LOI for LME units is especially important, as the monitoring requirements for LME are less stringent, in that they only have to conduct periodic performance testing. Testing must be conducted at operating conditions considered to be representative of day-to-day operations throughout the year. Commenter believes that LOI should be one indicator used to verify representative conditions. Other indicators include changes in coal type, coal supplier, heat input, load, coal blending percentages, and if reasonably available, coal Hg content. (*See related point under Issue 5.1*).

Commenter: Colorado Department of Public Health & Environment, EPA-HQ-OAR-2005-0132-0090, p. 1

Response: EPA has not incorporated this suggestion into the final rule. See also the response to Comment 5.1 (D).

### **2.3.2 Default Emission Rates for SO<sub>2</sub> and NO<sub>x</sub> LME Units**

**Comment A: Supports the proposed language relating to default emission rates for fuel oil combustion in lieu of using the generic default SO<sub>2</sub> emission rates.**

(1) The commenter supports the proposed language relating to default emission rates for fuel oil combustion in lieu of using the generic default sulfur dioxide (SO<sub>2</sub>) emission rates specified in Table LM-1 of § 75.19. However, the commenter suggests other revisions to § 75.19, stating that since the inclusion of LME units in CAIR will create a financial hardship, additional methods for determining the emission rate from LME units for SO<sub>2</sub> and NO<sub>x</sub> should be allowed. More specifically, EPA could allow the use of all the emission factors developed through other federal testing or monitoring requirements, such as 40 CFR 60 Subpart GG. Using these rather than the generic emission factor would more closely estimate the emissions from an LME unit. This commenter adds that the greatest cost of compliance to the LME unit is creating a site-specific emission factor, and provides additional discussion and examples to support their assertion on this issue.

Commenter: Missouri Department of Natural Resources' Air Pollution Control Program, EPA-HQ-OAR-2005-0132-0059, p. 1

Response: In the final rule, EPA has incorporated the commenter's suggestions in part. After the public comment period closed, the Agency requested and received further information from the Missouri DNR regarding the 30 units that prompted their comments (this information is in the rule docket). These units are exempted from the Acid Rain

Program and the NO<sub>x</sub> Budget Program, but have become subject to the Clean Air Interstate Regulation (CAIR). All of the units are combustion turbines, and for the past three years (2004 through 2006), they operated anywhere from zero hours to a few hundred hours per year. For the twenty older-style turbines constructed in the 1960's and 1970's, no historical NO<sub>x</sub> emission test data are available. The other ten turbines commenced operation between 1981 and 2000, and NO<sub>x</sub> emission testing was performed on nine of them, in the time period from 1982 to 2001.

Even though these 30 combustion turbines (CTs) have operated very little in recent years, EPA is not persuaded that they should be entirely exempted from NO<sub>x</sub> emission testing for the purposes of complying with CAIR. First of all, the majority of the units (20 of 30) have no historical emissions data at all upon which to base an emission factor. In the absence of such data, EPA believes it is entirely appropriate to require these older-style CTs to either be tested or to report the generic NO<sub>x</sub> emission rates from Table LM-2 in §75.19. For the remaining ten units, the most recent test data are between 6 and 25 years old. EPA believes that these data are too old to ensure that the units are still emitting at the same levels as when they were last tested. Therefore, the Agency has not taken the commenter's suggestion to allow these test results to be used for reporting purposes under the CAIR NO<sub>x</sub> program. These historical test results are of some value, in that §75.19(a)(2)(ii)(A) allows them to be used as part of the initial demonstration that the units qualify as low mass emitters---but they are not acceptable for Part 75 reporting purposes. Therefore, these ten units must either be retested or must report the applicable generic default NO<sub>x</sub> emission rates from Table LM-2.

Despite the fact that EPA is not allowing the turbines in question to be exempted from emission testing or to use NO<sub>x</sub> emission data older than 5 years for reporting purposes under CAIR, the Agency acknowledges that it is often difficult to schedule emission testing for units that operate so infrequently, and that it is expensive to start up and operate a unit to perform emission testing when the generation is not needed. In view of these considerations, new subparagraphs "(3)", "(4)", and "(5)" have been added to §75.19(c)(1)(iv)(I), providing reduced NO<sub>x</sub> emission testing requirements for LME units with very low capacity factors, both for initial certification testing and for retests.

The annual capacity factor of a LME unit (calculated according to the definition in §72.2) is considered to be "very low" if its average value is demonstrated to be 2.5 percent or less for the three calendar years immediately preceding the year of the initial Appendix E emission testing (or the year of a scheduled retest), and if the capacity factor is no greater than 4.0 percent in any of those three years. Subparagraphs (3) and (4) of §75.19(c)(1)(iv)(I) allow very low capacity factor LME units to perform the initial and ongoing NO<sub>x</sub> emission tests at a single load between 75 and 100 percent of the maximum sustainable load defined in the unit's monitoring plan. As an alternative, subparagraph (5) of §75.19(c)(1)(iv)(I) allows the single-load test to be done at the highest attainable load corresponding to the season of the year in which the test is performed.

For a LME unit that reports data on an ozone season-only basis, the 2.5 and 4.0 percent capacity factor percentages must be met for the three ozone seasons immediately preceding the date of the emission testing, in order for the unit to qualify as a very low

capacity factor unit. For a group of identical units, the single-load testing option may be used for any unit(s) in the group that meet the very low capacity factor requirements.

EPA believes that the amendments to §§75.19(c)(1)(iv)(I) will substantially reduce the cost of compliance with CAIR for units with very low annual capacity factors. The single-load test provision minimizes the amount of time that a low capacity factor unit must operate to obtain a representative fuel-and-unit-specific NO<sub>x</sub> emission rate, and retesting is required only once every 5 years. Further, for a group of identical units, a representative subset of the units may be tested. Because several of the 30 Missouri turbine units appear to be identical, EPA estimates that only about half of them will have to be tested to satisfy the requirements of CAIR. The Agency does not believe that these testing requirements are unduly burdensome.

- (2) The commenter agrees with the changes proposed in § 75.19(c)(1)(i) and supports the alternate method of determining an SO<sub>2</sub> emission factor during fuel oil combustion in lieu of the applicable default SO<sub>2</sub> emission factor from Table LM-1. The commenter also recommends that EPA provide an alternate method of determining unit specific default NO<sub>x</sub> emission factors during uncontrolled operating hours for units with add-on emissions controls, rather than requiring the use of the applicable "overly conservative and punitive" default NO<sub>x</sub> emission factors from Table LM-2.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 2

Response: Based on the comments received and for the reasons stated in the proposed rule, EPA has finalized §75.19(c)(1)(i) with only minor revisions. EPA did not propose changes to the rule regarding the use of default NO<sub>x</sub> emission factors during uncontrolled operating hours. Therefore, that comment is outside the scope of this rulemaking and no response is required.

- (3) The commenter supports the use of a fuel-specific SO<sub>2</sub> emission factor without having to petition EPA for approval, but requests clarification on why a separate Part 75 requirement for periodic sampling and analysis is necessary when any federally enforceable permit limit is already going to have a method for ensuring that the fuel complies with that limit. Also, the reference to "periodic" determination is not sufficiently clear.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 16; APPA, EPA-HQ-OAR-2005-0132-0081, p. 17

Response: Appendix D of Part 75 provides several different options for sampling the sulfur content of fuel oil. These include daily manual sampling, flow proportional sampling, sampling from the unit's storage tank upon each addition of oil, and sampling of each shipment or lot of fuel. These options, particularly the last one, are relatively easy to implement and interface well with other existing regulations (e.g., NSPS) that require periodic fuel sampling. The word "periodic" needs no further explanation, as Appendix D clearly defines the intervals at which the fuel samples must be taken. Although EPA

does not believe that implementing Appendix D fuel sampling would prove to be burdensome, the final rule allows LME units to use fuel sampling methodologies prescribed in other applicable Federal or State regulations or in Federally-enforceable operating permits to document compliance with the fuel oil sulfur limits.

- (4) The commenter supports proposed changes to the general monitoring provisions of Part 75 and notes specifically that changes to § 75.19(c)(1)(iv)(G), which allow fuel and unit specific default NO<sub>x</sub> emission rates from LME units to be determined using data from a properly quality-assured CEMS, are appropriate. However, the rule lacks a description of how much quality-assurance is acceptable. The preamble describes the QA level expected, but the rule does not include this language.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 1

Response: The commenter is mistaken. The proposed rule does include the appropriate language describing the required level of QA for the CEMS data, on page 49282 under item 12 c. Minor wording changes to a rule section are often made this way, rather than displaying the entire section. Apparently, the commenter did not realize this, and was expecting to find paragraph (c)(1)(iv)(G) displayed below, under the main heading of §75.19

- (5) The commenter agrees with changes to § 75.19(c)(1)(i) and supports the alternate method of determining an SO<sub>2</sub> emission factor during fuel oil combustion in lieu of the applicable default SO<sub>2</sub> emission factor from Table LM-1. The commenter also recommends that EPA provide an alternative method for determining unit specific default NO<sub>x</sub> emission factors during uncontrolled operating hours for units with add-on emissions controls, rather than requiring the use of default factors from Table LM-2. The default NO<sub>x</sub> emission factors are overly conservative and punitive.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 2-3

Response: EPA did not propose changes to the rule regarding the use of default NO<sub>x</sub> emission factors during uncontrolled operating hours. Therefore, that comment is outside the scope of this rulemaking and no response is required.

## 2.4 F-Factors and Expanded Use of F-23

### Comment A: Supports expanded use of equation F-23.

- (1) Commenters expressed general support for the use of equation F-23. One commenter (Machaver) supports expanded use of equation F-23 for other types of gaseous fuels and low sulfur oils.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB2; Machaver, EPA-HQ-OAR-2005-0132-0071, p. 8

Response: Based on the comments received and for the reasons stated in the proposed rule, EPA has finalized this provision as proposed.

**Comment B: EPA should consider alternatives or improvements to the proposed approach for prorated F-factors.**

(1) The commenter requests that additional methods of determining F-factors be codified when combinations of fuels are burned. Appendix F, § 3.3.6.4 appears to require a prorated F-factor for units that combust a combination of fossil fuels or fossil fuels and wood residue. However, the EDR instructions for RT520 states that two options are available for sources that burn combinations of fuels: 1) use the highest F-factor, or 2) use a prorated F-factor. The option of using the highest F-factor is not found in the code. This commenter also suggests a new approach that would allow for the use of a prorated worst-case F-factor calculated based on plant specific or permit restrictions, and provides an example to illustrate this approach.

Commenter: Wisconsin Public Service Corporation, EPA-HQ-OAR-2005-0132-0057, p. 2

Response: The final rule (section 3.3.6.5 of Appendix F) allows sources that burn combinations of fuels listed in Table 1 of Appendix F to use the highest (“worst-case”) F-factor for any unit operating hour, in lieu of prorating the F-factor.

(2) The commenter cites to the provisions in Appendix F with respect to the derivation and use of an F-factor, and observes that although the use of prorated F-factors are required for units that co-fire a combination of fossil fuels or fossil fuels and wood waste, there are no procedures in Appendix F to specify how the heat input fraction contributed by each fuel is to be determined. This commenter recommends that EPA allow units the option of using a prorated "worst-case" F-factor. Under this approach, the unit would determine its F-factor assuming its maximum emissions based on plant specific or permit restrictions. In addition, the commenter recommends that Appendix F be revised to match the EDR instructions for RT 520 regarding the F-factor options available to sources that burn combinations of fuels.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 8

Response: See response to Comment 2.4B(1), above.

(3) With the proposed revisions to Part 75, bituminous and sub-bituminous coals no longer share a common F-factor, and in accordance with Appendix F, a prorated F-factor should be used. In the case of monitoring conducted at common stacks that are shared only by affected units, a strict interpretation of § 75.16(e)(3) would dictate that the associated heat input apportionment methodology can only be applied if all affected units have the same F-factor. For coal-fired units, this means that each of the affected units would have to fire identical types/blends of coal. If this is not the case, the proposed regulations do not appear to provide any alternate heat input apportionment schemes. The commenter provides significant additional discussion and examples on this issue, and suggests

revising Appendix F §§ 3.3.6.3-4 and 5.2 to note that "affected units" includes application to common stack configurations. The commenter further suggests that EPA codify the use at the highest F-factor when combinations of fuels are being combusted in the affected unit, and that the EPA allow for petitions for approval for alternate heat input apportionment methodology for units with a common stack.

Commenter: Consumers Energy Company, EPA-HQ-OAR-2005-0132-0062, p. 1-4

Response: The final rule addresses the commenter's chief concern regarding heat input apportionment at common stack configurations by allowing the use of a single, "worst-case" F-factor for units that combust combinations of fuels. See response to Comment 2.4B(1), above.

(4) The Appendix F provisions for determining a prorated F factor during mixed fuel firing periods should be revised to allow a source the option of using the highest F factor among the fuels being fired each hour, in lieu of calculating a prorated fuel factor. This approach would result in a conservative estimate of NO<sub>x</sub> lb/mmBtu emissions, and avoids the need to implement to relatively elaborate monitoring and recordkeeping required to estimate a prorated fuel factor for units that cannot meter fuel flows continuously.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 6-7

Response: See response to Comment 2.4B(1), above.

(5) The commenter suggests rounding factors to the nearest multiple of 10 to be consistent with the F-factors and Fc-factors in the existing rule, and provides a table with specific rounded F-factor data that EPA should use.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB8

Response: In the final rule, the proposed F-factors for sub-bituminous coal, petroleum coke, and tire-derived fuel have been rounded off to the nearest multiple of 10.

## 2.5 Protocol Gas Audit Program

**Comment A: EPA should provide a transition period of at least one year from the date EPA issues details of the audit verification program.**

(1) Sources need sufficient opportunity to communicate with their gas vendors with respect to ongoing participation in EPA's program. The proposed revision to Appendix A, § 5.1.1, effectively requires producers of EPA Protocol Gas to participate in the EPA Protocol Gas Verification Program (PGVP). Commenter provides additional discussion noting that this revision would be disruptive and costly both in the short-term and in the long-term.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 3

**RESPONSE:** EPA agrees with the commenter regarding the need for a transition period. The final rule amends section 5.1.4 (c) to have the Protocol Gas Verification Program (PGVP) take effect on January 1, 2009. EPA notes that the costs are expected to be minimal (\$5 to \$10 added to a \$500 to \$1,000 cylinder), especially when considering the potential cost savings from fewer failed calibration error tests, linearity checks or relative accuracy test audits. As the commenter states, the costs of the PGVP will be borne by the users of the calibration gases, and most will ultimately be passed on to electric utility company rate-paying customers.

## 2.6 Cycle Time Test -- Stability Criteria

**Comment A: Agrees with proposed alternative stability criteria.**

(1) The commenter agrees with adding proposed alternative stability criteria to § 6.4 of Appendix A.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 2

Response: Based on the comments received and for the reasons stated in the proposed rule, EPA has finalized this provision as proposed and has added an alternative stability criterion of  $0.5 \mu\text{g}/\text{m}^3$  for Hg, which was inadvertently omitted from the proposed rule.

**Comment B: EPA should revise the Cycle Time Test protocol.**

(1) EPA's proposed revisions are sensible and necessary. However, there is still a concern regarding the potential of insufficient step change during the downscale diluent cycle time determination. Commenters recommend a more logical step and cycle time based on measuring span to zero and zero to span.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p.5; Eastman Chemical Company, EPA-HQ-OAR-2005-0132-0074, p. 3

Response: EPA has revised the cycle time test procedure in Appendix A, by reversing the sequence from stack gas to calibration gas. Figure 6 has been replaced with new Figures 6a and 6b. The stability criteria are much easier to meet with calibration gas than with stack gas. EPA believes this change in the test procedure (which is closer to the way in which the test was originally presented in the January 1993 rule) gives a more accurate indication of the monitor's true response time and helps to prevent "false positive" test failures.

**Comment C: Hg CEMS may not meet the stability criteria at units with variable emissions.**

- (1) Commenter supports EPA's proposal to add alternative stability criteria for low emitting sources, but are concerned about the ability of Hg CEMS to meet the stability criteria at units with variable emissions. Commenter requests that EPA consider alternative criteria for those monitoring systems.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 29

Response: See response to Comment 2.6B(1), above.

- (2) Mercury emissions are highly variable over short periods of time and there will be many cases where the stability criteria in Appendix A, 6.4 cannot be met. The 2-minute criteria will be very troublesome for most sources and the 6-minutes criteria may be difficult to meet on many sources. The cycle time test should be reversed to start with stack gas and end with zero/span. Also the proposed alternative cycle time stability criteria "0.5 ppm pollutant/0.2 percent diluent" should be included in the final rule. Commenter also requests a grammatical revision to section 6.4.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB6

Response: EPA agrees that the test sequence should be reversed. See response to Comment 2.6B(1), above.

## 2.7 Fuel Analysis Test Methods

### **Comment A: EPA should add ASTM D5453-05 to the list of approved methods for determining the sulfur content of fuel oil.**

- (1) This is a preferred method for determining the sulfur content of Ultra Low Sulfur Diesel (ULSD) oil and is particularly well suited for the analysis of sulfur in ULSD because of its very low detection limits and its accuracy over a wide range of sulfur concentrations. Commenter observes that any newly permitted combustion turbines or diesel engines will be required to use ULSD, cites to other major EPA regulations in which the ASTM D5453 Method is currently included on the list of approved sulfur analysis methods, and provides additional discussion in support of their position on this issue.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 2

Response: In the final rule, ASTM D5453-05 has been incorporated by reference into §75.6 and has been added to the list of acceptable oil sampling methods in section 2.2.5 of Appendix D. EPA had previously approved one petition to use this method.

### **Comment B: EPA should incorporate by reference, the fuel analysis test methods approved for other comparable EPA air quality rules.**

- (1) At a minimum, Part 75 should recognize as automatically approved, any fuel analysis methods specified in, or approved under, NSPS Subparts D, GG, KKKK, JJJJ as well as

any fuel analysis method specified in, or approved under, 40 CFR 80, which governs transportation fuels. Commenter provides additional discussion in support of their position on this issue and observes that there is precedent for this type of reciprocity between rules, as several of the NSPS rules specify that fuel sampling may be performed in accordance with 40 CFR 75 Appendix D procedures.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 3

Response: EPA agrees with the substance of the commenter's recommendation and has added language to sections 2.2.5, 2.2.7, 2.3.3.1.2, and 2.3.4 of Appendix D allowing the consensus standards prescribed for the affected unit in 40 CFR Part 60 to be used to demonstrate compliance with Part 75.

**Comment C: ULSD should be treated in a similar fashion to pipeline natural gas (PNG), for which a default SO<sub>2</sub> emission rate of 0.0006 lb/mmBtu may be reported.**

(1) If a facility fires ULSD, the option should be provided in 40 CFR 75 to report a default oil sulfur content value of 0.0015 percent S in RT 313 for each hour that (exclusively) ULSD is fired. In addition, procedures for demonstrating that the sulfur content of combusted oil conforms with ULSD sulfur specifications should follow those provided in 40 CFR 75 Appendix D 2.3.14 for PNG. Commenter provides additional discussion to support this recommendation.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 4

Response: EPA has not incorporated this suggestion into the final rule. The Agency believes that it is unnecessary. Appendix D already provides sources with several options for reporting the sulfur content of fuel oil. Regardless of the option chosen, periodic fuel sampling is required. This would still be true if EPA were to adopt the commenter's suggestion to treat ULSD in a similar fashion to pipeline natural gas (PNG), because Part 75 requires annual sulfur sampling to document the sulfur content of PNG. In view of this, EPA is not persuaded that reporting a default value of 0.0015 %S for ULSD offers any clear advantage over reporting the highest value from the previous year's fuel samples or reporting the maximum percent sulfur specified in a fuel contract, both of which are allowed under Appendix D.

**Comment D: Requiring sources that fire ULSD to report a sulfur content of 0.01 results in an over-reporting of SO<sub>2</sub> emissions.**

(1) In RT 313, Field 21, the precision for reporting the sulfur content of oil is two decimal places and thus, the minimum sulfur content that can be reported is 0.01 percent. However, the legal limit for the sulfur content of ULSD oil is 15 ppmw, or 0.0015 percent. Requiring sources that fire ULSD to report a sulfur content of 0.01 represents an over-reporting of SO<sub>2</sub> emissions of more than six times, which is an unwarranted penalty for firing a clean fuel.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 4

Response: The precision for reporting Sulfur content of diesel fuels is specified by rule (See, §75.58(c)(5)). Although EPA did not propose any changes to this requirement, the Agency agrees with the commenter that it is reasonable to allow more significant digits to be reported in cases where ultra low sulfur diesel fuels are utilized. Therefore, EPA has amended the final rule to allow reporting of percent sulfur for diesel fuels to the nearest hundredth, or to the nearest ten-thousandth. This would allow for the higher sulfur diesels to continue reporting to two decimal places as currently required, while allowing sources to report to four decimal places when the source feels it to be appropriate to avoid over-reporting. EPA will also clarify this point in the reporting instructions for the XML format. This change will only be applicable in the new XML reporting format.

## 2.8 Fuel/Flow Load Methodology

**Comment A: The provisions at Appendix D § 2.1.7 should be revised.**

(1) The provisions at Appendix D § 2.1.7 should be revised to indicate the Fuel Flow/Load analysis data set consist of valid hours during which the unit is operating within its designated "normal" operating range as specified in RT 536. The exclusion for operation within the lowest 25 percent of the unit's operating range could then be eliminated, except for peaking units, for which no "normal" operating load is designated. Commenter provides additional discussion to support their recommendation on this issue.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 5

Response: EPA did not propose changes to the fuel flow-to-load ratio requirements. Therefore, the comment is outside the scope of this rulemaking and no response is required.

(2) The commenter requests that Appendix D § 2.1.7 be revised to allow a more flexible treatment of co-firing hours, so that the Fuel Flow/Load methodology can be applied to units that fire fuel mixes on an intermittent basis and of variable composition. Commenter provides additional discussion to support their recommendation as well as a detailed description of two alternatives for treating intermittent mixed fuel firing on dual fuel Appendix D units.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 6

Response: See the response to Comment 2.8A(1), above.

**Comment B: RT 629 should include the meter re-installation date.**

(1) Since the fuel flow/load baseline analysis is initiated at the time of re-installation of a fuel meter, and not at the time of its recalibration; it would be convenient to include the meter re-installation date in RT 629.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 6

Response: EPA has finalized the proposal to add component activation date/hour and deactivation date/hour data elements as part of the Agency's transition to the new XML EDR format. This will make it unnecessary to report fuel flowmeter reinstallation dates.

## **2.9 Additional Quality Assurance/Quality Control Issues**

### **2.9.1 General Issues**

#### **Comment A: Generally agrees with QA requirements.**

- (1) The commenter supports the clarifications that have been incorporated in § 75.74(c)(2) "Quality assurance requirements prior to the ozone season" and § 75.74(c)(3) "Quality assurance requirements within the ozone season."

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

Response: Based on the comments received and for the reasons stated in the proposed rule, EPA has finalized these provisions as proposed.

#### **Comment B: EPA should ensure that all applicable QA/QC requirements are consistent.**

- (1) The commenter sees a need to resolve conflicting QA/QC requirements for units subject to both Part 60 and Part 75.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 5

Response: The comment is outside the scope of this rulemaking and no response is required. Nevertheless, EPA notes that progress has been made in harmonizing the CEM requirements in Parts 60 and 75, for sources subject to both sets of regulations. On June 13, 2007, revisions to 40 CFR Part 60 were published (72 FR 32710-32768). Included among the rule changes were various continuous monitoring provisions in the NSPS General Provisions (§60.13), Subparts Da and Db, and Appendices B and F. These revisions: (1) make the method of validating CEM hourly averages consistent between Parts 60 and 75; (2) allow Subpart Da and Db sources to use certified Part 75 monitoring systems for Part 60 compliance purposes and (with a few exceptions for low emitting sources) to perform the QA procedures in Appendix B of Part 75 in lieu of the procedures in Appendix F of Part 60; (3) allow Subpart D, Da and Db units to use Part 75 span values for SO<sub>2</sub> and NO<sub>x</sub> instead of the Part 60 values; (4) allow 7-day drift tests to be done at any convenient operating load, over a period of 7 unit operating days; and (5) eliminate the need to start up a unit solely for the purpose of performing an Appendix F cylinder gas audit or RATA.

**Comment C: The commenter does not support the alterations to QA recordkeeping in § 75.59(b)(4)(ii) that would be mandated on and after January 1, 2009.**

- (1) Eliminating the completion date and hour of both the most recent primary element inspection and the most recent flowmeter or transmitter accuracy test will make it more difficult to track these events. The commenter believes that these data are more meaningful than test values.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 4

- (2) The commenter does not support the proposed changes to § 75.59(b)(4)(ii) with the XML format to eliminate information on the completion date and hour of both the most recent primary element inspection, and the most recent flowmeter or transmitter accuracy test.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 4-5

Response to (1) and (2): The revised XML reporting format will not rely on this information to determine when the most recent primary element inspection and flowmeter or transmitter accuracy tests were completed. Instead, EPA will use a unique test number that will directly identify the visual inspection and accuracy test that trigger the start of the baseline fuel flow-to-load ratio or gross heat rate (GHR) data collection period. For sources using the fuel flow-to-load or GHR option, the fuel flowmeter QA test completion dates have, historically, been reported in RT 629 of the current EDR format, so that the MDC software can find the relevant records in the unit's QA test history. However, with the transition from EDR format (where data is stored as a collection of quarterly reporting files on a mainframe computer) to the XML format (which is a database system that makes access to the emissions data more efficient), these dates no longer need to be reported. By removing the visual inspection and transmitter calibration test date reporting requirements, EPA is not suggesting that sources should stop tracking those dates within the data acquisition and handling systems (DAHS), if they find it helpful. Rather, EPA is removing these reporting requirements simply because the new XML system does not need the information. Therefore, EPA has finalized the changes to § 75.59(b)(4)(ii), as proposed.

## 2.9.2 Mercury Monitoring QA Issues

**Comment A: EPA should recognize and approve the current QA/QC requirements for components of certified flow monitoring systems such as stack temperature and stack pressure devices.**

- (1) In lieu of requiring additional QA/QC requirements (quarterly calibrations per Appendix K - Table K-1) for existing stack temperature and stack pressure measurement devices currently certified for use under the ARP/NBP, EPA should accept the existing QA/QC

practices for these devices as acceptable for use in conjunction with Appendix K monitoring systems.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 6

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required.

**Comment B: EPA should modify or eliminate the trap spiking requirement for QA/QC purposes.**

(1) There are numerous data proving that spiking creates problems and does not provide additional QA/QC. It is an unnecessary step. Commenter notes that they are currently running Appendix K sorbent trap system in parallel with an Hg CEM and the data is correlating well between the paired traps and Hg CEM output except for the third section spike results are erratic and show that the spike section of the trap is unnecessary. Commenter recommends the following alternative to spiking the third section of Appendix K traps: Using a three section trap (with no spiking), require the mercury content found in the third section to be less than 2.0 percent of the total mass collected in § 1 and 2. Altering the method in this fashion will prove that spiking is unnecessary, and also establishes additional QA/QC to demonstrate sufficiently that there is or is not Hg breakthrough.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 6

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required. Nevertheless, EPA notes that the issue of third section spiking has been addressed in a direct final rulemaking that was published on September 7, 2007 ([see FR51494-51531](#)). The requirement to spike the third section of each sorbent trap has been retained. However, the requirement to use the spike recovery percentages to adjust (“normalize”) the emissions data has been withdrawn. EPA has retained the third section spiking requirement because it provides the only substantive evaluation of the quality of the data from a sorbent trap monitoring system, in between the annual RATAs. High spike recovery percentages provide assurance that during each data collection period there were no adverse stack gas matrix effects interfering with the adsorption and retention of Hg on the sorbent media.

(2) The current spiking requirement in Appendix K § 5.2 is overly burdensome to utilities which may elect to monitor emissions using sorbent trap monitoring technology. Commenter recommends that EPA modify this QA requirement to be completed on a quarterly basis.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 5

Response: See the response to Comment 2.9.2B(1), above.

- (3) The requirement for spiking traps should be removed from Appendix K. Sufficient data are available to demonstrate that this requirement is counter-productive. The requirement that the spike shall be within +/- 50 percent of the sample recovery will be a problem to meet. Many factors will affect the front trap loading, such as Hg in the coal, removal efficiency, and unit operating time. A plant QA procedure that specifies that a trap be replaced each week would be sized to operate for a week, but might actually encounter few operating hours and little Hg due to unit outages or load cycles.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 4-5

Response: See the response to Comment 2.9.2B(1), above.

**Comment C: Agrees with EPA's addition of the 20 percent relative deviation for paired traps less than 1  $\mu\text{g}/\text{m}^3$ .**

- (1) Commenter also agrees with EPA's addition of the 20 percent relative deviation for paired traps less than 1  $\mu\text{g}/\text{m}^3$ . For extremely low Hg concentrations, the commenter proposes that EPA use 20 percent or the absolute difference of the published lower limit of the method, which is 0.03  $\mu\text{g}/\text{m}^3$ .

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p.6

Response: The 20 percent relative deviation (RD) specification for low emitters has been incorporated into the final rule. EPA has also incorporated the commenter's suggestion to provide a second alternative specification of 0.03  $\mu\text{g}/\text{m}^3$  absolute difference. The 20% RD specification may be too stringent when the Hg concentration in the stack gas is exceptionally low ( $< 0.1 \mu\text{g}/\text{m}^3$ ).

- (2) EPA should withdraw the normalization requirements of § 11.5 of Appendix K to Part 75. Until a better industry-wide understanding of the issues related to the quantification of this spike is developed, EPA should modify Table K-1 of this appendix to remove the "Sample Invalidated" consequences if the spike recovery criteria are not met. Commenter provides significant additional discussion and analysis to support their recommendation, including graphs and tables that show actual testing and monitoring data.

Commenter: Clean Air Engineering, EPA-HQ-OAR-2005-0132-0075, p. 2

Response: See the response to Comment 2.9.2B(1), above.

## 2.10 Other Monitoring Issues

### **Comment A: Supports clarifications to QA procedures for ozone season only reporters.**

- (1) The commenter supports the clarifications that have been incorporated in § 75.74(c)(2) "Quality assurance requirements prior to the ozone season" and § 75.74(c)(3) "Quality assurance requirements within the ozone season."

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 5

Response: No response required.

### **Comment B: Recommends new SO<sub>2</sub> mass EDR monitoring approach.**

- (1) Commenter proposes that 40 CFR 75 be revised to allow determining SO<sub>2</sub> lb/hr emissions from oil and gas fired affected units using the same type of CEMS/Appendix D methodology as is currently allowed for NO<sub>x</sub>. Such a monitoring system would be composed of: (a) a CEMS component, consisting of an SO<sub>2</sub> analyzer and a diluent analyzer, to measure SO<sub>2</sub> lb/MMBtu emissions; and (b) a fuel metering system/fuel sampling component to determine heat input (MMBtu/hr). This methodology makes fuel supplier data a much more attractive option under Appendix D for oil. Commenter provides additional discussion on this approach, recognizing that EDR reporting needs to be modified to accommodate this monitoring scheme.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 7-8

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required.

### **Comment C: For gas-fired designation/definition (§§ 75.20/75.14) an exemption or special provision should be added for low capacity factor units.**

- (1) A unit that only operates a few hours in a given year can trigger opacity monitoring requirements simply for having burned very minimal oil (e.g., for a few hours), which is inconsistent with the intent of the gas-fired provisions. Commenter provides additional discussion to support their recommendation on this issue.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0072, p. 1

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required. Nevertheless, the Agency notes that the opacity monitoring requirement in Part 75 for oil-fired units applies only to a very small number of Acid Rain Program (ARP) units, i.e., those that combust residual oil (grade number > 2). Therefore, the commenter's concern is largely unfounded. Oil-fired ARP units that combust only diesel fuel (grade number 1 or 2---see definition in §72.2) are classified as diesel-fired and are exempted from opacity monitoring under §75.14(d).

**Comment D: EPA should add a provision to allow compliance with the opacity monitoring provisions through a particulate monitoring system.**

- (1) A provision needs to be added (in Parts 72 and 75) stating that if a particulate monitoring system is used for monitoring particulate stack emissions, the opacity monitoring provisions are satisfied. This clarification should be similar to language in Part 60.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0072, p. 1-2

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required. However, EPA believes that the comment has merit in light of recent revisions to Subparts Da and Db of 40 CFR Part 60, that either require or allow a particulate monitoring system to be used in lieu of an opacity monitor (e.g., see §§60.49Da(t), and 60.48b(j)). Therefore, the commenter's recommendation has been incorporated into the final rule. The Agency believes that this revision to Part 75 is non-controversial and is consistent with EPA's ongoing commitment to harmonizing the Part 60 and Part 75 continuous monitoring regulations.

**Comment E: Requiring O<sub>2</sub> analyzers to be configured with dual ranging is both burdensome and unnecessary.**

- (1) Sources that use the Appendix D methodology typically measure the NO<sub>x</sub> rate using a dry extractive CEMS with O<sub>2</sub> serving as the diluent. On Boilers, the O<sub>2</sub> percent during normal operation may be as low as 2 to 3 percent, particularly with dry low NO<sub>x</sub> burners. Under these circumstances the O<sub>2</sub> monitor cannot pass the annual scale range evaluation required under Part 75, Appendix A, 2.1 since the majority of readings will fall below 5 percent O<sub>2</sub>. In practice, the O<sub>2</sub> analyzer scale range cannot be lowered below 20 percent O<sub>2</sub> and requiring O<sub>2</sub> analyzers (in CEMS serving Appendix D) to be configured with dual ranging is both burdensome and unnecessary. Commenter provides additional discussion on this issue, requests that 40 CFR 75 Appendix A exempt O<sub>2</sub> analyzers from annual scale evaluation, and provides alternative suggestions if a check of O<sub>2</sub> scale accuracy and suitability is required.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 4-5

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required.

**Comment F: EPA should revise or clarify certain special provisions for measuring Hg mass emissions using the excepted sorbent trap monitoring methodology.**

- (1) The commenter states that the § 75.15(f) restriction on the type of equipment that can be used to measure sorbent trap sample volume to a dry gas meter is inconsistent with equipment performance requirements in Appendix D and should be removed.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 2

- (2) The requirements in § 75.15(f) appear to be a carryover from the manual test method and imply that manual recording of the dry gas meter readings is required once per operating hour, which would be impractical. EPA should remove references to specific hardware requirements and specify performance requirements, such as the total volume of sample, that must be recorded each hour.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 2

Response to Comments (1) and (2): These comments are outside the scope of this rulemaking. Therefore, no response is required. However, EPA is persuaded that more modern alternatives to the dry gas meter (e.g., mass flow meters) should be allowed for sorbent trap monitoring systems. This issue has been addressed in a direct final rulemaking that was published on September 7, 2007 (see FR51494-51531).

- (3) Appendix K, § 5.1 describes a typical setup for a portable sorbent trap test system. This configuration should not be required for a primary sorbent-based CMM. Sufficient QA/QC criteria could be specified to allow other configurations that would be more suitable for permanent continuous systems that must be maintained and operated by site personnel.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 4

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required.

- (4) Appendix K was written more like a test method (old Method 324) than a performance-based monitoring method, which limits the ability to evolve sorbent trap systems into continuous process instruments. It should be re-written to make it a performance-based, not a hardware-based, method. In section 5.1.2, the regulations should not require the trap to be placed in the flue gas stream, as this limits system design and prevents development of an easier to operate system with equivalent results. Sections 5.1.3 and 5.1.4 also have hardware-specific requirements. In addition, Appendix K, § 5.1.5 is hardware-specific and is not applicable to a continuous CMM system. This greatly limits the system design and prevents development of systems that would provide equivalent results that would be easier to operate. The requirement to use a dry gas meter is archaic and inappropriate. Many alternatives exist that are more accurate and have the ability to produce a signal that can easily be recorded by a data logger to ensure an accurate flow measurement. Some can also control the flow rate and provide a recordable signal. Also, the requirements in § 7.2.3 appears to be a carryover from the manual test method and could imply manually recording the dry gas meter readings once per operating hour, which is impractical. We recommend that the EPA remove references to specific hardware requirements and specify performance requirements such as the requirement that total volume of sample must be recorded each hour.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 4-5

Response: See the response to Comment 2.10F(2), above.

- (5) Commenter expresses confusion regarding the requirement to analyze the glass wool in the sorbent trap to determine the total mercury concentration. The first glass wool plug typically contains a significant amount of ash. Commenter requests clarification on 1) whether this requirement is intended to add this particulate-bound mercury with the mercury concentration recovered from the first bed of the sorbent trap, or as a separate concentration; 2) whether it is really necessary to include this mercury contribution at all; and 3) whether the same guidelines apply if paper plugs are used in the sorbent traps.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 5

Response: The first glass wool plug is analyzed with the rest of the contents of the sorbent trap. While it is possible that some particulate Hg may be collected on the glass wool plug, EPA does not consider this to be a significant issue. For coal-fired boilers, particulate Hg typically constitutes a very small percentage (< 5%) of the total Hg in the stack gas. Historically, field tests have shown consistently good agreement between the sorbent trap sampling method and the Ontario Hydro method (excluding the particulate fraction), when Hg concentrations are measured concurrently with both methods.

### 3. Certification Requirements

#### 3.1 General Certification Issues

**Comment A: If EPA is not able to process all PEMS applications in a timely manner, provisional certification should be granted.**

- (1) The commenter points to the potential for hundreds of gas turbines to apply to use PEMS under Subpart E and expresses concern that EPA may not be able to process these applications in a timely manner, which may cause confusion (particularly at sites where CEMS are being retired in lieu of PEMS). The commenter suggests that pending Administrator approval, a site should be considered provisionally certified if it meets all of the requirements of Subpart E and the other ongoing quality assurance requirements of 40 CFR Part 75 including periodic audits with portable analyzers (i.e., per the approval letter issued on September 6, 2006 by the Administrator of U.S. EPA OAR-2005-0099). This provisional certification would be similar to the one issued for CEMS following successful completion of all performance testing requirements and implementation of ongoing CEMS quality assurance per 40 CFR Part 75, Appendix B. The commenter also suggests, as with CEMS, that sources with the provisional certification status be given complete certification status if no response is received from U.S. EPA within a specified time frame (i.e., 180 days). Commenter provides additional background discussion on this issue.

Commenter: CMC Solutions, EPA-HQ-OAR-2005-0132-0064, p. 3

**RESPONSE:** Because of the potential complexity of Subpart E petitions and environmental consequences, the Agency believes that it would be unwise to grant automatic approval after a certain time period. However, EPA understands the commenter's concern about timely processing of Subpart E petitions, and will consider granting provisional certification when needed in a Subpart E petition response.

**Comment B: EPA should eliminate the DAHS testing requirement for fuel oil meter replacements.**

- (1) This requirement triggers recertifications that otherwise apply under § 75.20(g)(1)(ii). EPA should eliminate the requirement or at least provide an exemption for cases where the certified DAHS is not affected. Commenter provides additional discussion.

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0072, p. 1

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required.

**Comment C: EPA should not require submittal of hard copy certification applications.**

- (1) The commenter requests that EPA clarify whether hard copy certification or recertification applications (Form 7610-14) must be submitted to EPA regional offices. The commenter recommends that a hard copy not be required, as it is inconsistent with the intention of using the "latest modern technology for the submittal of data."

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 2

Response: For the reasons stated in the preamble to the proposed rule, EPA has finalized the provision eliminating the requirement to submit EPA form 7610-14 to the Administrator, to the EPA Regional Office, and to the State as part of each hard copy certification or recertification application. This form will be replaced by an electronic mechanism that will convey the information necessary for EPA to log and track certification and recertification events. The rest of the certification (or recertification) application process remains unchanged, i.e., the electronic portion of the application is submitted to the Administrator and the hard copy portion goes to both the EPA Region and the State.

**Comment D: EPA should provide additional flexibility regarding the Hg monitoring system certification deadlines.**

- (1) Under the current rules, affected units under CAMR must certify monitoring systems by January 1, 2009 and hold allowances to cover their emissions by January 1, 2010. If a unit is retired in 2009, the utility would need to either install and certify an Hg monitoring system or seek unit-specific relief through the petition process. EPA should consider a rule revision that would relieve units that actually retire after January 1, 2009 but before January 1, 2010 from the Hg monitor certification and reporting requirements.

Alternatively, EPA could make a determination that any petition identifying such units that was submitted by some date in the fall of 2008 should be granted prior to January 1, 2009.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 13; APPA, EPA-HQ-OAR-2005-0132-0081, p. 14

- (2) A number of utilities anticipate installing scrubbers that will require the building of a new stack. If this occurs during 2009 (and prior to January 1, 2010) there would not appear to any reason to install and certify and Hg monitoring system on the old stack only to take it out when the new stack became operational. EPA should consider including a provision that relieves units from certifying Hg monitoring systems on a stack that is not required to be monitored following January 1, 2010.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 14; APPA, EPA-HQ-OAR-2005-0132-0081, p. 14-15

Response to (1) and (2): EPA did not propose to change to the January 1, 2009 monitoring system certification deadline specified in the CAMR rule. Therefore, these comments are outside the scope of this rulemaking. However, EPA acknowledges that this is an important issue, and advises sources in the situations described by the commenters to seek regulatory relief through the petition process under §75.66.

### **3.2 Alternative Monitoring System Certification**

#### **Comment A: Supports alternative monitoring system provisions.**

- (1) The commenters support eliminating the requirement that requests for certification of an alternative monitoring system be published in the Federal Register and that there be a 60-day public comment period on the request. The commenters also recommend that the Clean Air Markets Division utilize EPA's Applicability Determination Index web page for sharing certification information, including future Part 75 petitions and responses.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 2; Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 3

Response: Based on the comments received and for the reasons stated in the preamble to the proposed rule, EPA has eliminated the requirement to publish requests for certification of alternative monitoring systems in the Federal Register and to subject these requests to public comment.

### 3.3 Part 60 Reference Test Methods

**Comment A: Part 75 and Part 60 test methods should be consistent.**

- (1) The commenter urges EPA to synchronize Part 75 and Part 60 test methodologies and performance specification provisions for mercury and other pollutants regulated under these Parts.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 3

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required. Nevertheless, EPA notes that considerable progress in this area has recently been made. See the response to Comment 2.9.1B(1), above.

- (2) In EPA's Emission Measurement Center (EMC) FAQ document, it states that "the stratification test in [the revised] Method 7E does not take precedence over the existing stratification test requirements in 40 CFR 60, Appendix B and 40 CFR 75, Appendix A." This statement should be included in either the preamble the final rule or added to Appendix B, 6.5.6.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB6

Response: EPA does not agree that such a statement needs to be added to section 6.5.6 of Appendix B. The requirements regarding stratification test and traverse point selection are clearly stated in Part 75, and Method 7E has adequate language to indicate that for RATA testing its requirements do not take precedence over those in Part 75.

**Comment B: EPA should harmonize the instrumental method and certification provisions between Parts 75 and 60.**

- (1) The commenter notes that Part 75 does not appear to take into account the revision of the Part 60 instrumental methods. The instrumental method revision gutted Method 20 and reduced it merely to 7E references. The original Method 20 required testing at 8 sampling points (run time 15 to 20 minutes), while under the revised 7E and Appendix E 2.1.2.2 and 2.1.2.3, sampling could be reduced to a single 1-minute average (after twice the response time) for each run. Three 1-minute sampling runs at four loads do not seem like sufficient data to develop a curve for emission reporting. Commenter requests clarification on how a source would complete Method 20 testing for both Part 60 and Part 75, App. E, and recommends that EPA modify either Appendix E or Method 20 and set a minimum run time of 20 minutes (providing an hour of data at each load), or minimum sampling points.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0069, p. 1

Response: EPA appreciates this comment and acknowledges that the restructuring of EPA Methods 7E and 20 in 2006 has created confusion as to how Appendix E testing should be

conducted. For boilers, Method 7E has been the required method for Appendix E correlation curve tests. However the traverse points have been selected in accordance with EPA Method 3, section 8.3.1, rather than Method 7E. For stacks with a diameter larger than 24 inches, Method 3 requires a twelve point traverse to ensure a representative sample. Method 20 has been the specified test method for Appendix E combustion turbines. The old Method 20 required an initial 48 point traverse to find the eight points with the lowest oxygen concentration. The test runs were then conducted using those eight points. The revised Method 20 no longer provides traverse point selection procedures, but simply defers to the point selection process in Method 7E. In view of this, EPA has modified section 2.1.2 of Appendix E, to make the testing and traverse point selection requirements for boilers and turbines the same. That is, both boilers and stationary gas turbines are required to use twelve traverse points, located, to the extent practicable, according to EPA Method 1. EPA believes that this action is consistent with the Agency's intent to adopt (with certain restrictions) the revised versions of the instrumental test methods for Part 75 applications, and is certainly preferable to requiring a retired version of Method 20 to be used for Appendix E testing of combustion turbines.

- (2) The commenter supports proposed changes to the Part 75 certification requirements, especially efforts to align Part 75 with Part 60 requirements.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2

Response: No response required.

- (3) EPA should further revise Part 75 and Part 60, as needed, to synchronize the test methodologies and performance specification provisions, not only for Hg, but also for the other pollutants regulated under these Parts. There are still critical differences between the two sets of regulations that encumber facilities with units that must comply with both Part 60 and 75, such as differences in the definition of a valid hour of data, RATA timetables, linearity check provisions, and cylinder gas audit (CGA) requirements. To relieve burden on affected sources, the quality control procedures in Part 75 should be sufficient to satisfy the obligations under both Parts.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2

Response: The comment is outside the scope of this rulemaking. Therefore, no response is required. Nevertheless, EPA notes that considerable progress in this area has recently been made. See the response to Comment 2.9.1B(1), above.

**Comment C: Supports EPA's proposal to update various section references in Part 75.**

- (1) Commenter specifically cites to the inclusion of EPA reference test methods 6C, 7E and 3A (as revised at 71 Fed. Reg. 28082 (May 15, 2006)).

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 3

Response: No response required.

### 3.4 Mercury Reference Methods

**Comment A: Supports alternative methods, such as those based on sorbent trap technology or "other suitable" reference methods.**

(1) The CAMR requires that mercury monitors be in place and certified by January 1, 2009, an aggressive schedule that will lead to increased competition for the limited resources needed to comply with all applicable requirements for installing and certifying the monitoring systems. Also, the requirement to use the Ontario Hydro (OH) Reference Test Method will complicate matters, as this method is inherently complex, expensive, and time-consuming, and is not a viable method for ongoing quality assurance. The commenter notes that the development and implementation of a mercury instrumental reference method (IRM) and EPA Method 29 as alternatives, will not provide the cost-effective testing options and timely results needed to support CAMR. Therefore, an alternative reference method based on portable sorbent trap technology can and should be approved for Hg emission testing and RATA applications. The commenter supports the addition of EPA's proposed language for § 75.22(a)(7), which would allow an "other suitable" reference method approved by the Administrator to be used for Hg emission testing and RATA.

Commenter: NRECA, EPA-HQ-OAR-2005-0132-0061, p. 4-5

Response: No response required.

(2) The proposed change under § 75.59 refers to § 75.59(a)(7)(x), which is not currently shown in Part 75 and should be reserved for alternative methods (i.e., sorbent trap).

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 3

Response: Paragraph (a)(7)(x) in §75.59 has been finalized as proposed. The recordkeeping requirements for RATA runs using the newly-added Method 29 are presented in that paragraph. Consistent with the commenter's recommendation, however, the title of reserved paragraph (a)(7)(viii) has been revised. This paragraph now serves as a placeholder for data elements associated with RATAs performed using instrumental reference Method 30A and sorbent-based reference Method 30B. The required data elements will be added at a later date.

(3) The commenter recommends that EPA clarify that the RATA and bias test runs on the sorbent trap systems can be conducted using two runs of 2 hours, even if the traps are sized to operate for extended periods, such as 1 or 2 weeks.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 2

Response: EPA has not incorporated the commenter's suggestion into the final rule. The Agency has addressed this issue in a direct final action published on September 7, 2007 (see FR51494-51531) that allows sorbent traps smaller than the ones used for day-to-day

operation of the monitoring system to be used for RATA testing. This will help to reduce the RATA run length.

- (4) The commenter agrees that EPA Method 29 is an acceptable alternative to the OH reference method for performing RATAs and for periodic testing of low mass Hg emission units. The commenter recommends allowing the use of sorbent traps as an additional option for reference method testing for Hg emissions when analyzed using EPA Method 1631.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 3

Response: In a recent direct final action published on September 7, 2007 ([see](#) FR51494-51531), EPA published a sorbent trap reference method (Method 30B). The method is performance-based and allows the wet digestion procedures in Method 1631 to be used for the analyses.

- (5) Commenter supports the use of sorbent trap monitors for use as an alternate reference method for conducting Hg RATAs. The sorbent trap results are equally accurate and dependable when compared with the OH method. Commenter supports EPA's proposal to allow an "other suitable" reference method for Hg emission testing (in § 75.22(a)(7)). EPA should take appropriate action to make the sorbent trap method a viable alternative reference method.

Commenter: American Electric Power, EPA-HQ-OAR-2005-0132-0077, p. 1-2

Response: See the response to Comment 3.4A(4), above.

- (6) There is a need for alternatives to the OH Method (ASTM D6784B02). In its current form, the alternative (i.e., the instrumental Hg reference method (Hg IRM)) that EPA is currently developing will be too expensive and time-consuming and insufficient time remains to obtain a viable Hg IRM approved and in place prior to 2008 when CAMR certification testing will need to be conducted. EPA should continue the development of this method, but should offer an alternative to meet testing requirements. Even EPA Method 29 will not provide the cost-effective testing options needed to support CAMR. Therefore, EPA should approve an alternative reference method based on portable sorbent trap technology. The RMB consulting memo (provided as an attachment to the UARG letter) recommends that EPA move forward immediately to approve carbon traps as a reference method for Hg. Commenters note that an alternative reference method based on portable sorbent trap technology can and should be approved very soon. Commenters provide significant additional discussion to explain and support their position on this issue.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079 p. 7-8 and p.RMB1-2; APPA, EPA-HQ-OAR-2005-0132-0081, p. 7-8

Response: See the response to Comment 3.4A(4), above.

- (7) Regarding the adequacy of current sorbent trap QA procedures, commenter notes that UARG and the Electric Power Research Institute (EPRI) are working to analyze existing sorbent trap and OH data in order to demonstrate whether the alternative method has an inherent measurement bias as compared to the OH method and the adequacy of any QA procedures. In addition to this assessment as completed by UARG and EPRI, EPA should conduct its own analysis to supplement the industry's work. Commenter requests that this work be provided through the TTN or the CAMD website and that the materials be made very easy to access.

Commenter: APPA, EPA-HQ-OAR-2005-0132-0081, p. 8-9

Response: EPA did conduct a Method 301 analysis of available sorbent trap data, comparing it against established reference methods. As a result, the Agency concluded that development of a sorbent-based reference method was a viable option. See the response to Comment 3.4A(4), above.

- (8) Conectiv Energy participated in a study conducted by Lehigh University's Energy Research Center, which evaluated the measurement of mercury emissions from power plants and yielded vast amounts of data on sorbent traps compared to other mercury measurement methods, such as OH and CEMS. EPA should work with the University and use these data to help develop a sorbent trap reference method. Adding language to § 75.22(a)(7) so that sorbent traps could be used in the near future will greatly benefit mercury compliance efforts.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 1

Response: See the response to Comment 3.4A(4), above.

- (9) Commenter provides a summary of the performance of the sorbent trap method for measuring mercury so that EPA may use this information to determine whether to allow the use of sorbent traps as a reference method. The comments present EPRI's experience in three areas: (1) performance of sorbent traps in the field, especially compared to the OH Method; (2) reliability/utility of requiring a spiked third § for all measurements; and (3) suggestions for improving several sorbent trap analysis QA procedures. Commenter provides significant additional discussion on these issues.

Commenter: EPRI, EPA-HQ-OAR-2005-0132-0083, p. 1-3

Response: See the response to Comment 3.4A(7), above.

- (10) The commenter generally supports the proposed rule revisions to allow the use of sorbent traps as an additional option for reference method testing for Hg emissions.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2

Response: See the response to Comment 3.4A(4), above.

(11) The commenter concurs with EPA on the need to develop an Instrumental Reference Method (IRM) for the mercury monitoring rule changes, but also notes that such a method is 2-3 years away from becoming feasible. The commenter supports use of sorbent traps as a reference method when analyzed using EPA 1631. Numerous method comparison studies have been completed to date. The sorbent trap method using EPA 1631 analysis is extremely accurate, and is much easier to perform than the OH Method or RM 29, reducing the likelihood of operator error or biased sample results. Commenter submits a list of sorbent trap validation data in support of their position on this issue.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 1-2

Response: See the response to Comment 3.4A(4), above.

(12) There are many technical and regulatory obstacles that must be overcome before Hg CEMS can be installed and certified by January 2009 as the rule requires. The technology for continuously monitoring very low concentrations of mercury emissions from coal-fired utilities is just now being developed, and there is limited industry experience with it. The limited timeframe to identify, procure, install, and certify Hg CEMS forces utilities to deal in an emerging market that continues to be extremely immature with regard to technology, product capability, production capacity and customer support. Commenter provides significant additional discussion on this issue, citing to specific problems associated with this approach. Commenter outlines specific disadvantages of the OH Method as the only allowable reference method for certification of the Hg CEMS, and recommends that EPA act on industry's request for a sorbent trap reference method and finalize the instrumental reference method for Hg CEMS.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 1-2

Response: See the response to Comment 3.4A(4), above. The Agency notes that an instrumental reference method for Hg (Method 30A) was published along with the sorbent trap method, as part of the same direct final action.

(13) Appendix A § 6.5.10 does not allow for alternative methods to be used other than the instrumental reference method. The EPA should ensure the regulations address the potential to use alternative methods as approved test methods.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: The final rule addresses the commenter's concern. The rule clearly allows the use of the EPA-approved sorbent trap reference Method 30B as well as the approved instrumental reference Method 30A.

- (14) The statement "...or other suitable reference method capable of measuring total vapor phase Hg may be used, subject to the approval of the Administrator" could mean that sorbent trap technology will be acceptable as a reference method. Since this was implied in the summary to these rule revisions, EPA should clarify this issue in the final regulations and allow the use of the sorbent trap methodology as a reference method.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 3

Response: See the response to Comment 3.4A(13), above.

**Comment B: EPA should provide additional data and docket material to support the proposed changes to Appendix K.**

- (1) EPA should provide additional data to support the statement that "relative accuracy and bias of a sorbent trap monitoring system are dependent upon both the trap design and the type of sorbent material used." Commenter provides additional discussion.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB4

Response: EPA has included in the docket the results of a study that was done comparing the relative Hg capture efficiencies of different types of sorbent media. The study clearly shows a wide variation in effectiveness among the different media. Regarding trap design (principally trap size), the Agency has reconsidered and has withdrawn the proposed requirement to perform a diagnostic RATA when the trap size is changed.

**Comment C: Supports use of Method 29.**

- (1) The commenter supports allowing the use of Method 29 (40 C.F.R. Part 60, Appendix A) for RATA testing and periodic emissions testing of units with low mass emissions.

Commenters: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 2; PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2

Response: No response required.

**Comment D: EPA should clarify certain provisions regarding the reference methods.**

- (1) Under § 75.22(a)(7), the list of required caveats is rather difficult to follow. It may be useful to provide a table of required caveats for the use of Method 29 which would be easier to read and use a general description of the substitution in a form like: substitute the lab QC/QC of ----- in ASTM for the Lab QA/QC in ----- of Method 29.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 1

Response: Due to time and resource constraints, EPA has not incorporated the commenter's suggestion. The Agency believes that those who are seriously interested in using Method 29 will have no trouble understanding the caveats.

(2) Method 29, 1.2.1 allows the use of Method 101A. Does CAMD intend to allow the use of 101A? If not, language needs to be added to § 75.22(a)(7) that will eliminate this alternative.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 1

Response: EPA's confidence in the precision and accuracy of Method 101A is not nearly as high as it is for the Ontario Hydro Method or Method 29. Therefore, the Agency decided against including Method 101A as a possible alternative Hg reference method for CAMR. EPA does not agree with the commenter that §75.22(a)(7) needs to explicitly prohibit the use of Method 101A. The reference methods listed there are the only ones allowed for Part 75 applications; methods not listed may not be used.

(3) EPA should clarify whether they intend to require the use of EPA audit samples for Hg analysis when using Method 29 or ASTM D6784-02. The ASTM method suggests the use of outside audit samples, but Method 29 does not require such audit samples. The EPA Stationary Source Compliance Audit Program does have Hg audit samples that could be used for these methods, but there may be a need to develop new Hg audit samples with lower concentrations.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 1

Response: EPA is not requiring the use of EPA audit samples for when Method 29 or ASTM D6784-02 are used.

(4) Citations of the Hg method in the revision should always be to "ASTM D6784-02" or to "ASTM method," not to Ontario Hydro, in order to avoid confusion with the Canadian Method.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 1

Response: EPA has not incorporated the commenter's suggestion. Part 75 clearly indicates that "ASTM D6784-02" and the "Ontario Hydro Method" are one and the same. To date, the Agency is unaware of anyone misunderstanding this or confusing the ASTM method with the Canadian Method.

(5) The commenter requests clarification on whether sources can select the best runs to calculate the RA and just report the remaining runs. If, for example 13 Ontario Hydro paired runs have been completed and all are valid, can the source throw out 4 paired runs and count the remaining 9 runs?

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 1

Response: No. The RATAs of Hg monitoring systems are subject to the same set of rules as RATAs of all other monitoring systems. That is, at least 9 valid runs are required, and you may exclude a maximum of 3 runs from the calculations.

**Comment E: The commenter supports the addition of an alternative relative deviation standard, but believes that paired trains should not be required since they add to the cost of testing and result in the discarding of more sampling runs.**

(1) Commenter is concerned that EPA may not understand the consequences of these costs, which are very expensive for smaller municipal or state-owned utilities. If EPA believes that the precision and accuracy of the OH Method or Method 29 is inadequate, EPA should raise the relative accuracy specification to account for that error to develop and outlier test that will eliminate obviously bad data. EPA should locate and analyze data to determine whether the proposed specification will be adequate to compensate for the difficulty of making those measurements at low concentrations. It is difficult to comment on the values proposed by EPA, since no data has been provided to support them. Commenter recommends that EPA work with UARG and EPRI on this issue.

Commenters: APPA, EPA-HQ-OAR-2005-0132-0081, p. 9-10

Response: EPA does not agree with the commenter that paired trains should not be required when Hg is measured with the Ontario Hydro Method or Method 29. Paired train measurements provide added assurance of data quality. To alleviate concerns about the achievability of the relative deviation (RD) specification at low Hg concentrations, the final rule incorporates the proposed 20 percent RD alternative specification for concentrations  $\leq 1 \mu\text{g}/\text{m}^3$  and adds a second alternative specification of  $0.03 \mu\text{g}/\text{m}^3$  absolute difference to address exceptionally low concentrations. See the response to Comment 2.9.2C(1), above.

**Comment F: It will be difficult for units with low concentrations to meet the relative deviation requirement for the OH or Method 29 reference methods.**

(1) The relative deviation requirement for Ontario Hydro or Method 29 testing is equal to 20 percent for runs with an average concentration less than or equal to 1.0 micrograms per cubic meter. As test results approach the limits of quantification (around 1.0 microgram per cubic meter), the relative deviation limitation is not a significant measure of success and should be equal to the limits of quantification. It will be difficult for low emitting Hg units to meet the current requirement, and a modification of the deviation requirement to address this issue should be made. TVA recommends a quantification limit be defined and the relative deviation limitation be adjusted accordingly.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 3

Response: See the responses to Comments 2.9.2C(1) and 3.4E(1), above.

**Comment G: Commenter provides specific recommended changes to Hg reference method provisions.**

- (1) The commenter recommends allowing staggered, paired 2-hour EPA Method 29 or Ontario Hydro mercury runs that overlap by 1-hour.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 1

Response: EPA has not incorporated the commenter's suggestion into the final rule. The request to stagger the RATA runs is based on a concern that the Ontario Hydro (OH) Method or Method 29 test runs may be very long at low Hg concentrations. The Agency is opposed to the concept of staggering RATA runs because the test runs would no longer be truly independent. However, the commenter's concern about excessive RATA run length is being addressed. EPA is moving toward using instrumental and sorbent-based reference methods instead wet chemistry methods such as OH and Method 29 for the RATAs of Hg monitoring systems. In a recent direct final action published on September 7, 2007 ([see](#) FR51494-51531), EPA published two such alternative reference methods (Methods 30A and 30B). Using these new methods, the RATA run times are expected to be less than an hour.

#### **4. Missing Data Substitution**

##### **4.1 Block versus Step-Wise Approach**

**Comment A: Supports step-wise approach.**

- (1) Commenters support allowing missing data substitution algorithms to be used in a stepwise fashion rather than in a block approach and agree with rule changes concerning the stepwise hour-by-hour methodology of applying various missing data algorithms sequentially. The block approach can result in a unit's emissions being significantly overstated.

Commenters: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 3; PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2; Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 3

Response: No response required.

- (2) Commenters support the "step-wise" approach. EPA should finalize the proposed revision to require sources to calculate percent monitor availability (PMA) for each hour of missing data and apply the associated missing data algorithm sequentially during the period instead of calculating PMA at the end of the missing data period and applying the same algorithm to the entire period.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 2; UARG, EPA-HQ-OAR-2005-0132-0079, p. 17; APPA, EPA-HQ-OAR-2005-0132-0081, p. 17-18

Response: No response required.

#### 4.2 Substitute Data Values for Controlled Units

**Comment A: Commenter supports the new provisions regarding alternative missing data procedures for controlled units.**

(1) Commenters express their support for the revised provisions, citing to §§ 75.34(a)(3) and (5) and 75.38(c). However, commenters add that the availability of these options without petition should not have any effect on a sources' ability to petition for additional relief or on EPA's response to such a request. EPA should confirm in the final rule that it will not use these options as a rationale for disapproving a petition under circumstances where these option would result in an overestimation of emissions.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 17; APPA, EPA-HQ-OAR-2005-0132-0081, p. 18

Response: EPA has finalized these provisions as proposed. The new provisions regarding alternate substitute data for controlled units do not prevent sources from petitioning for additional relief. EPA's response to such petitions will depend on the specific circumstances surrounding the missing data incidents and the supporting information provided.

**Comment B: Supports use of the maximum controlled emission rate (MCR), but provides additional suggestions or requests for clarification.**

(1) The commenter strongly supports use of the MCR for Bypass Stacks on units for which controls operate during Bypass operation. However, EPA should clarify in the rule that the MCR may be determined using quality assured CEMS data measured from the main stack.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 8

Response: The final rule requires the maximum expected concentration (MEC) for NO<sub>x</sub> to be used to determine the maximum controlled emission rate (MCR). The MCR is calculated by replacing the maximum potential concentration (MPC) with the MEC in the applicable NO<sub>x</sub> emission rate equation (see section 2.1.2.1(b) of Appendix A). Regarding the commenter's suggestion, EPA notes that the rule already allows for the MEC to be determined from quality-assured CEMS data, from which the MCR can be calculated (see Appendix A, sections 2.1.2.2(a) and 2.1.2.5).

(2) Use of the potential NO<sub>x</sub> emission rate could result in over-reporting of emissions. Therefore, commenter agrees with the proposed revision at § 75.17(d)(2) that allows the

use of the maximum controlled emission rate if the owner/operator can document the proper operation of the control device and notes that this provision should also be incorporated into the NBP at § 75.72(c)(3).

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 15-16; APPA, EPA-HQ-OAR-2005-0132-0081, p. 16

Response: EPA agrees with the commenter's suggestion and has revised §75.72(c)(3) to allow the MCR to be reported during bypass hours, provided that the NO<sub>x</sub> emission controls are not bypassed and are documented to be working properly. EPA has also revised §75.31(c) to allow the MCR to be used during periods of initial missing data substitution where no prior quality assured data is available.

(3) The commenter requests clarification on whether the new maximum controlled emission rate and maximum expected concentration will be implemented on a fuel-specific basis, and where this information will be stored and reported.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2-3

Response: EPA has revised the final rule to clarify that the MCR may be implemented on a fuel specific basis, in a manner consistent with the provisions in §75.33(c)(8)(iii) for the MER. EPA will provide further instruction on the reporting details in the XML format reporting instructions.

**Comment C: EPA should modify the provision at § 75.81(d)(6) to reflect a proper availability threshold.**

(1) The provision at § 75.81(d)(6) requires documentation of proper control device operation for each unit operating hour to avoid reporting the maximum potential Hg concentration data substitution. As with any monitoring system, 100 percent monitor availability is not realistic. Commenter recommends the EPA modify this proposal to reflect a proper availability threshold (i.e. 90 percent) for the parametric monitoring system before maximum potential data substitution is required.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response: EPA did not propose changes to the provision in §75.81(d)(6). Therefore, this comment is outside the scope of this rulemaking. However, the Agency notes that in the case where proper operation of the emission controls cannot be documented, the requirement to use maximum potential values for missing data substitution is: (1) appropriate, since it is not certain that emissions are being controlled; (2) applied on an hour-by-hour basis; and (3) not in any way tied to the percent monitor data availability (PMA) value.

**Comment D: EPA should modify the missing data provisions to allow additional flexibility for common stack installations.**

- (1) The citation at § 75.34(a)(1) allows units with add-on emission controls to substitute for missing data periods normally after verifying proper operation of the control equipment. However, it does not consider common stack configurations with individual controls on individual units. For these cases, if a single unit's control device is not operating normally, Maximum Potential Concentration or Maximum Emission Rate must be substituted for the entire stack. EPA should review and make appropriate revisions to address this concern by allowing such units to be disaggregated for purposes of data substitution.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 3

- (2) The requirement to demonstrate proper operation of SO<sub>2</sub>, NO<sub>x</sub>, and Hg controls, or substitute a maximum potential concentration value is overly punitive on common stack installations. Although one or more units could be operating under controlled conditions, another unit sharing that common stack and operating under startup or shutdown conditions would have to be classified as uncontrolled. That would require substitution of maximum potential concentration for the stack. EPA should add the option to apportion the controlled and uncontrolled SO<sub>2</sub>, NO<sub>x</sub>, or Hg missing data criteria based on heat input or load ratios of each source to a common stack.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 3

Response to Comments (1) and (2): EPA has not incorporated the commenters' suggestions into the final rule. For common stack locations, where the emissions for two or more units are monitored by one set of monitors, the MEC and MCR values for that stack location must be based on the proper operation of all emission controls for the parameter being monitored. Also, in order to use the MCR or 1.25 times the maximum controlled value in a lookback period for alternative missing data substitution in the fourth tier (i.e., when PMA is below 80.0%) all of the emission controls must be operating properly. When only some of the emissions controls are operating properly, the Agency is not persuaded that apportionment or averaging of maximum potential and maximum expected emissions is appropriate, since the magnitude of emissions control in such instances is not easily assessed. Sources can always petition for alternative substitute data on a case-by-case basis, if application of these rule provisions is believed to be overly burdensome.

**Comment E: Suggests corrections to § 75.34 (Units with add-on emission controls).**

- (1) The language in redline under § 75.34(a)(3) requiring the 2,160 hour look back is inconsistent with the footnote for Table 2 which considers ozone season look back methodology. Commenter recommends a correction to the language in the citation to match the Table 2 footnote.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 3

Response: To address the commenter's concern, EPA has revised §75.74(c)(7)(iii)(L), to indicate that for ozone season-only reporters, the terms "720 quality-assured monitor operating hours" and "2160 quality-assured monitor operating hours" in §§75.34(a)(3) and 75.34(a)(5) are replaced with the terms "720 quality-assured monitor operating hours within the ozone season" and "2160 quality-assured monitor operating hours within the ozone season", respectively.

(2) The commenters note that EPA should review tables 1, 2, and 3 and associated footnotes to ensure they reflect available options. For example, footnote 1 in Tables 1 and 2 still contain language suggesting that the option can only be used "upon approval (71 FR 49283-84)." And, Table 3 does not include the option of using the maximum controlled emission rate. EPA should review these tables to ensure that they reflect the available options.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 18

Response: EPA appreciates the comment and has revised the footnote 1 in Tables 1 and 2, to remove the language "upon approval" (which reference the petition process previously required by §75.34(a)(3)). Regarding the footnotes to Table 3, the commenter is correct. The proposed revisions did not include language regarding the option for using the maximum controlled emission rate in the third missing data tier. EPA has added this language to the final rule.

### 4.3 Substitute Data Values for Mercury

#### **Comment A: Generally supports proposed missing data provisions for mercury monitoring.**

(1) The commenter supports EPA efforts to further refine the missing data provisions used for the mercury monitoring program.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 2

Response: No response required.

(2) The commenter agrees with proposed amendment to missing data procedures for sorbent trap systems to make them the same as for Hg CEMS.

Commenter: Conectiv Energy, EPA-HQ-OAR-2005-0132-0082, p. 1

Response: No response required.

#### **Comment B: Agrees with certain special provisions for measuring Hg mass emissions using the excepted sorbent trap monitoring methodology.**

- (1) The commenter welcomes the ability to utilize the remaining trap if one trap is lost. The commenter also points out that, since the multiplier represents the maximum concentration that the lost trap could be equal to and still meet the 10 percent RD, the multiplier should be 1.111, which is the average of the two traps.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 2

Response: EPA has finalized the single trap adjustment factor (STAF) as 1.111 as recommended by this commenter. The 1.111 multiplier will be conservative in all cases except where the relative deviation (RD) between the lost or invalidated trap and the available quality assured trap would have exceeded 10 percent. However, even the 1.222 STAF proposed by EPA would not be conservative enough to account for that case. EPA agrees with the commenter that the 1.222 factor would be overly conservative in all other cases, since the average trap value is reported whenever the RD for a pair of traps is within 10 percent.

**Comment C: Supports use of Single Trap Adjustment Factor (STAF).**

- (1) Commenter agrees with changes to Appendix K regarding use of the single trap adjustment factor of 1.222 when only one trap is valid for purposes listed under the proposed changes.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 6

Response: EPA appreciates this commenter's support of the proposed provision to allow the use of a single trap adjustment factor in lieu of invalidating data from an Appendix K system when only one quality assured sample is obtained. However, consistent with the response to Comment 4.3B(1), above, EPA has finalized a reduced STAF value of 1.111.

**Comment D: Does not support use of Single Trap Adjustment Factor (STAF).**

- (1) The citation at § 75.15(h) proposes the use of a punitive STAF that will penalize the source for events that are specifically "beyond the control of the owner or operator" and may be more punitive than normal data substitution routines. Because of the immaturity of this measurement protocol, the use of an adjustment factor should not be necessary until some availability threshold is crossed and allowing the single trap to be used without adjustment is appropriate. Once use of the STAF is triggered, those results should be averaged with the unadjusted results of the valid trap. This would be consistent with the averaging that would be performed if results from the two traps were available and would appropriately weight the actual results of the valid trap.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 2-3

- (2) EPA should not apply STAF since it is not reasonable or warranted. In cases where a single trap is used, there is no reason to believe that the lost or invalid trap's results would

have exceeded the valid trap. At a minimum, the single trap results should be averaged with the unadjusted results of the valid trap. Note that the RMB Consulting memo (provided as an attachment to the UARG letter) express support for allowing sources to use the results from a single Hg sorbent trap in cases where one trap might be lost or invalid provided that the remaining trap meets all other QA requirements, but does not support the use of a STAF. Because one trap remains valid, this is not a case of missing data, and the STAF approach is technically incorrect.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 5, p.RMB3; APPA, EPA-HQ-OAR-2005-0132-0081, p. 5-6

- (3) EPA should not apply a STAF multiplier of 1.222 to the results of the remaining sorbent trap if the paired sorbent trap is accidentally lost, damaged, or broken and cannot be analyzed. Commenter provides additional supporting discussion on this issue.

Commenter: Duke Energy Corporation, EPA-HQ-OAR-2005-0132-0066, p. 1

Response to Comments D(1) through D(3): As discussed in the response to Comment 4.3B(1), above, EPA has finalized a reduced STAF multiplier of 1.111 in lieu of the proposed value of 1.222. EPA maintains that the concept of a STAF multiplier is appropriate for use when one of the two samples from the paired train system is invalidated or lost, as a means to avoid using excessive amounts of substitute data. Further, it minimizes the risk of under-reporting that could result from using the data from a single trap. The requirement to compare the results from paired traps in an Appendix K system provides an important check on the quality of the data, by ensuring that the measurements made by the sorbent trap system are repeatable and reliable. Without this assurance, in situations where the data from only one trap can be validated, EPA would either have to: (1) invalidate all data from the pair of traps and require the use of substitute data for each hour of the data collection period; or (2) allow the results from the quality-assured trap to be reported, applying a single-trap adjustment factor to those results to account for the maximum RD allowed between paired samples. EPA favors option (2) and believes that a STAF value of 1.111 is appropriate.

**Comment E: There are insufficient data to support the missing data provisions for either Hg CEMS or sorbent trap systems.**

- (1) Although the programming and implementation would be easier if the missing data procedures for Hg CEMS and sorbent trap systems were the same, commenters cannot support either methodology at this time because there are not sufficient long-term data from either to determine the impact of the methodology on reported emissions. The current missing data algorithms were developed for SO<sub>2</sub> after significant analysis of SO<sub>2</sub> CEMS data and years worth of data on PMA capabilities of the systems. The impact of a missing data scheme of reported emissions is directly related to the length of the missing data periods, the overall amount of missing data, and the variability of emissions in the look-back period. Although EPA has relaxed the PMA trigger conditions for application

of the missing data algorithms for Hg CEMS, EPA has not provided any data to support its conclusions that the proposed scheme is reasonable. The commenter recommends that EPA reserve the rule or utilize a less-punitive methodology until they have data to support a missing data scheme. *[Note that in the RMB memorandum, provided as an attachment to UARG's letter, RMB notes that they support the proposed changes to the sorbent trap missing data procedures in 75.39(d), since these changes will simplify implementation by harmonizing the standard missing data procedures for Hg CEMS and sorbent traps.]*

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 18, p.RMB3; APPA, EPA-HQ-OAR-2005-0132-0081, p. 18-19

Response:

**Comment F: Regarding the provisions of § 75.39, the sorbent trap monitor availability thresholds do not appear to reflect the current maturity of the technology.**

- (1) Limited data sets would indicate a system maintaining 90 percent availability would be significantly above a typical system. Likewise, the Hg CEMS systems also have not demonstrated the ability to maintain availability above 90 percent. Relaxing the availability thresholds should be considered to allow the maturing technology time to develop without penalizing the subject utilities. TVA recommends the EPA establish an appropriate (i.e., 80 percent) starting monitor availability threshold. Even this alternative level of availability exceeds the levels being achieved now. We have not approached 80 percent monitor availability during field trials of Hg CEMS or sorbent trap systems, but we believe there is some likelihood this level may be achieved before 2010 at least by sorbent trap systems.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 3

Response:

**Comment G: The missing data provisions are based on Hg systems that are still in the development stage, which could be problematic.**

- (1) The missing data criteria for Hg systems are based on criteria that are similar to the requirements specified for existing and proven SO<sub>2</sub> and CO<sub>2</sub> monitoring systems. Current Hg systems are still in the research and development phase and will likely remain in that phase of development for a number of years, until they are proven reliable and accurate. With many demonstration systems currently being operated by vendors and other experts having availability well below 70 percent, it is highly unlikely that plant operating staffs will be able to improve on this percentage until the process significantly matures. EPA should ensure that the missing data criteria for Hg data recognize the nature of this program immaturity and not overly penalize poor availability until the process is proven to be reliable over long term operations.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 3

Response to Comments E, F, and G: These comments are not within the scope of this rulemaking. Therefore, no response is required.

#### 4.4 Other Missing Data Substitution Issues

##### **Comment A: Suggests grammatical revision to § 75.33.**

- (1) The following sentence appears repeatedly in § 75.33: "Whenever If the monitor data availability is equal or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each that hour of each the missing data period according to the following procedures:" Commenter suggests revisions to correct this grammatical error.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 2

Response: This comment is not accurate. The proposal removed the word "Whenever" and replaced it with the word "If" in all instances. EPA has finalized these provisions as proposed.

##### **Comment B: Requests clarification regarding CO<sub>2</sub> readings and mass emissions calculations.**

- (1) The commenter requests clarification on whether, for sources that do not apply diluent capping, negative and zero CO<sub>2</sub> readings should still be replaced with the diluent cap value to prevent heat input values of zero, and also requests clarification on what value should be used in Equations 19-6 through 19-9 when CO<sub>2</sub> is zero.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: Whenever an equation for heat input rate results in a zero or negative result during an hour of operation, 1.0 mmBtu/hr should be recorded and reported as the heat input rate for that hour. The diluent cap should be used in Equations 19-6 through 19-9 in a manner consistent with the requirements in section 3.3.4.1 of Appendix F.

- (2) The commenter requests clarification on whether a source that previously applied the diluent cap to heat input and CO<sub>2</sub> mass emissions calculations should use those values for missing data lookback after January 1, 2007, when that type of capping is no longer allowed.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: Yes. Diluent cap values that were used to calculate CO<sub>2</sub> mass emissions and heat input should be used in the applicable missing data lookbacks until they "roll away". However, as of the effective date of the final rule, diluent caps may no longer be used to calculate heat input, and CO<sub>2</sub> mass emissions.

## 5. Recordkeeping and Reporting

### 5.1 General Recordkeeping and Reporting Requirements

**Comment A: Suggests extending the deadline for implementation of the XML reporting requirements to ensure that all technical and logistical issues regarding this transition, are addressed.**

- (1) The commenter does not support a requirement for new source reporting in XML format in 2008 and suggests that the deadline be January 1, 2009 for all units. The commenter provides additional discussion and examples to support their assertion that meeting the XML reporting requirements in the timeframe proposed, is not feasible for new units.

Commenter: Wisconsin Public Service Corporation, EPA-HQ-OAR-2005-0132-0057, p. 1

Response: The final rule does not require sources that are reporting in accordance with Part 75 requirements for the first time in 2008 to report using the XML format. However, EPA did state in the preamble to the proposed rule that “EPA intends to transition existing sources to the new XML electronic data report (XML-EDR) format during the 2008 reporting year. For sources reporting in 2008 for the first time, the new XML format should be used. All sources will be required to use the new process beginning 2009.” EPA strongly recommends that first-time reporting sources should use XML in 2008, while the existing sources are transitioning to the new format. The Agency believes that much time, effort and money may be wasted if a first-time reporter implements the outdated EDR reporting system for just one year, only to have to upgrade to the XML format the following year. EPA advises such sources to seriously consider using the XML format in 2008. However, if a first-time reporting source prefers to report in EDR format in 2008 and then to upgrade to XML in 2009, the Agency does not object.

- (2) EPA's deadlines for mandatory use of the XML reporting format, for both existing and new units, are unrealistic given the serious issues raised by the transition from EDR to XML. Affected sources will rely heavily on CEMS software vendors to reprogram and update the data handling systems and software to include new data, and to accommodate currently collected data into the new format. Due to the high number of affected units, combined with the limited number of service providers, the proposed timeframe is insufficient. The commenter provided additional discussion and expressed their concern with several matters concerning the transition to XML, including how EPA will: 1) handle system glitches, 2) deal with time shifts and systems using wrong time blocking for averaging, and 3) ensure the security of the data. The commenter suggests that EPA extend the proposed XML reporting timeframe so that the transition period continues for three years after the effective date of the rulemaking with a final compliance date of four years after the effective date of the rulemaking.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 4

Response: EPA does not agree with the commenter's assertion that the timelines for the transition from the current EDR format to an XML-EDR format is unrealistic. While it is true that this transition relies heavily on CEMS software vendors to update their data systems to be capable of exporting data in the newer XML format, EPA has been working with these vendors and the regulated sources for many years to prepare for this change. EPA has also, in response to industry's requests, delayed the mandatory implementation of the new format until 2009 which had been previously scheduled for 2007 without any transition period.

Any further delay in implementing the new ECMPS reporting process is not possible, due to the reporting requirements of the CAMR and CAIR SO<sub>2</sub> programs, with which the current EDR structure is incompatible. These new programs each require submission of hourly data in 2009.

- (3) The commenter is concerned that the timeframe for transitioning to XML reporting may not be adequate. Affected sources will be heavily reliant on CEM software vendors to reprogram and update the data handling systems and software to include new data, as well as to accommodate currently collected data into the new format. Given the high number of affected units, combined with the limited number of service providers, the proposed timeframe does not provide sufficient time for owner/operators to contract with vendors to create new software, change the data systems, implement the systems, and address any problems. Commenter recommends tying the transition date to the date of rule promulgation and allowing additional time for implementation.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 2-3

Response: As discussed in response to the previous comment, EPA is unable to provide additional time for implementation of the revised data format.

**Comment B: EPA should modify or address certain provisions associated with the XML reporting and other associated formatting and transmission requirements.**

- (1) Regarding the electronic reporting requirements, EPA has not proposed any changes to the requirements for the DAHS in Appendix A and should clarify why a DAHS should be required to produce information in ASCII format and should address other issues with respect to formatting and transmission requirements. The commenter hopes the XML format will ease compliance, but has several concerns regarding the new format XML and EDR submissions and would like continued discussions with EPA.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 19-20; APPA, EPA-HQ-OAR-2005-0132-0081, p. 19-20

Response: XML is an ASCII format so the requirement is still relevant. EPA has held numerous stakeholder meetings and has received comments on the revised reporting instructions for the new XML reporting format and process. Since the commenter does not specify any specific concerns, no further response is possible.

**Comment C: EPA should clarify certain transmission procedures and approval mechanisms for electronic submittals.**

- (1) Although the rule allows transmission without EPA software upon approval, it provides no mechanism for approval that can be relied upon in the timeframe needed to provide relief. Instances where there are unexpected problems with transmission are dealt with on a case-by-case basis through either website postings or the temporary use of email to submit reports. Municipal and state-owned utilities generally have smaller staffs and limited consulting budgets, and the current policies in this regard are insufficient to address concerns associated with the reporting requirements. EPA should, at a minimum, acknowledge in its response to comments or preamble that these mechanisms are appropriate vehicles for APPA public power members to rely upon to gain EPA "approval" and that no further record of relief is required for certification of compliance with the rules.

Commenter: APPA, EPA-HQ-OAR-2005-0132-0081, p. 20-21

Response: EPA has always accommodated the receipt of electronic quarterly report submittals through temporary use of email, and will continue to do so in cases where there is a technical problem preventing the Agency's data system from receiving those reports by the legal deadline. These issues are handled on a case-by-case basis, and it is up to the source to notify EPA when they experience such difficulties. EPA encourages sources not to wait until the end of the 30-day reporting window to make their quarterly submissions, in order to allow adequate time to deal with any such technical difficulties prior to the reporting deadline.

**Comment D: The contents of the monitoring plan required through 40 CFR 75.53(g) should also include the parameter "loss on ignition" (LOI).**

- (1) LOI is a key factor in determining the efficiency of the boiler in burning fuel. Most utilities already track LOI per unit for fuel efficiency purposes. For coal-combustion boilers, higher LOI values indicate lower efficiency in fully combusting the coal. Less efficient boilers will have higher ash generation and/or fly-ash re-entrainment in the flue gas. This carbon-based material can have a scrubbing effect on Hg, especially elemental mercury ( $\text{Hg}^0$ ), in the flue gas and thus affect Hg emissions at the stack. Changes in boiler operation can impact LOI. For example, operators can adjust the  $\text{O}_2$  levels within the boiler, to increase LOI. In  $\text{O}_2$  starved environments, the boiler can effectively generate an activated carbon with a higher Hg scrubbing potential. Thus, LOI is a good indicator of changes in boiler operation and of native scrubbing potential, which impact Hg emissions at the stack. Tracking LOI for LME units is especially important. (*See related point in Section 2.3.1*).

Commenter: Colorado Department of Public Health & Environment, EPA-HQ-OAR-2005-0132-0090, p. 1

Response: EPA has not incorporated this suggestion into the final rule. The Agency believes that it is unnecessary and potentially very expensive to require tracking of LOI as an

indicator of representative conditions during the periodic stack tests required by the low mass monitoring option of §75.81. While there are a number of studies indicating that by increasing the LOI some of the carbon-based material that is formed may have a scrubbing effect on Hg, especially elemental mercury (Hg<sup>0</sup>), this is not true in all cases. Furthermore, the Agency does not believe that this phenomenon is significant enough to be to be advantageous to sources (i.e., by lowering the Hg concentration) during the periodic stack tests to determine default Hg concentrations. For example, the commenter points out that by reducing the O<sub>2</sub> levels in the boiler, the LOI can be increased, thereby generating an activated carbon in the ash that acts to scrub Hg. While this is true, the Agency believes that the resulting reduction in the effective heat input, which is critical to boiler operations, will deter sources from artificially raising their LOI in this manner. In any event, EPA notes that §75.81(c)(1)(i) requires the Hg testing be conducted at the normal unit operating load. The Agency intends for this to imply that the boiler is operated in a manner consistent with the normal operating practices at that load level.

## 5.2 Air Emissions Testing Bodies

### **Comment A: Strongly supports the provision that requires Air Emission Testing Bodies to conform to ASTM D7036.**

- (1) Commenter notes that EPA may hear from other commenters that this requirement cannot be met in practice, particularly with regard to mercury testing requirements. Comments claiming that the certification program required by the Practice is still in a state of flux and that there will not be enough certified individuals to perform the mercury testing required prior to the 2009 implementation date, is based on a misunderstanding of the Practice. Commenter provides additional discussion to describe why these concerns are unfounded and notes that there should be no problems finding enough qualified individuals.

Commenters: Clean Air Engineering, EPA-HQ-OAR-2005-0132-0075, p. 1

- (2) Commenter supports national/international standards and a single fee structure that can be readily adopted by national, state and local agencies. Commenter supports stakeholder-based consensus standard development, such as ASTM and supports the developing ASTM consensus Practice for competency of air emission testing bodies.

Commenters: Source Evaluation Society (SES), EPA-HQ-OAR-2005-0132-~~xxxx~~

**RESPONSE:** EPA agrees with the commenters, and notes that ASTM D7036-04 became final in August 2004.

### **Comment B: Does not support the provision that requires Air Emission Testing Bodies to conform to ASTM D7036, as it will be more costly and burdensome without a noticeable improvement in data quality.**

- (1) Commenter disagrees with the provision that AETBs performing tests would be required to provide the affected source a "certification" that the AETB "operates in conformance

with, and that the data submitted to the Agency has been collected in accordance with" ASTM D 7036-04. This Method will significantly increase the cost and burden of Part 75 testing, particularly for utilities that perform their own testing, without any noticeable improvement in data quality. The infrastructure and time needed to develop an adequate number of qualified individuals does not exist. Commenters provide significant additional discussion on this issue and request additional information and clarification from EPA regarding why this provision is necessary. The RMB memo (provided as an attachment to the UARG letter) suggests that EPA clarify how this ASTM will be administered and modify the rule to allow for a period of time (e.g., 1-2 years after promulgation) during which testers could become certified. One commenter (APPA) requests that EPA consider these comments in the context of Unfunded Mandates under UMRA.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 22-27, p.RMB5; APPA, EPA-HQ-OAR-2005-0132-0081, p. 21-25

- (2) Commenter believes that the AETB definitions and requirements for certification under ASTM D7036-04 as well as the "Qualified Individual" requirements do not belong in the regulation, or at least not at this point. There is presently no Federal rule that requires an AETB to have the said "certifications" and no authorized agency that can administer the test to become a "Qualified Individual." The QSTI program offered by SES is only offered occasionally on a regional basis and is not readily accessible since it is contracted out to ETA. Also, certification of the test company is a difficult barrier since there is no real Federal Board to do this. Even though there is NELAC, but they do not certify stack testing or sampling, only labs for analysis. Commenter provides significant additional discussion to support their position on this issue, citing to specific limitations and examples, and offering alternatives to the current proposed approach. Commenter notes that they are not necessarily opposed to a Qualified Individual program or even for accreditation for a company, although they believe that the latter is more problematic and that the best vehicle for either or both of these is to put the authority in a third party like the SES. Commenter also notes that if this requirement is implemented, EPA should provide some funding for smaller companies that are qualified.

Commenter: Source Testing and Consulting Services, Inc., EPA-HQ-OAR-2005-0132-0086, p. 1-3

- (3) The commenter considers the AETB certification program unnecessary and inappropriate, and urges the EPA to delay its implementation until it has fully evaluated the required processes and determined its effects on the various testing entities. Commenter notes that they have a group of emission monitoring technicians that conduct quarterly and annual CEMS quality assurance testing and periodically performs emissions testing, and supplement this with consultants as needed. This group has extensive experience with Part 75 quality assurance testing and will fall under the auspices of the AETB certification program, necessitating the addition of at least two more technicians to take on the extra responsibilities of maintaining the quality assurance program. The measurement uncertainty issue alone may require a significant amount of time and effort to keep up with. Commenter provides additional information and

discussion on this issue and recommends that given the high burden on sources and the limited environmental benefit, EPA should remove the AETB certification program from this proposal. At a minimum, the requirements should be postponed.

Commenter: Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 1

- (4) Test reports are submitted to Federal, State and/or local regulatory agencies, which are notified in advance of testing and frequently attend to audit the tests. The ability to critique and reject, or at least question, a testing program and the report that follows it currently exists. Even with no direct control over the AETB, the regulatory agency can require a regulated facility to re-test resulting in a market-driven control of test quality. If there is a problem with a test or test report, EPA should address the problem directly for those individual reports. The implementation of this requirement will generate profits for a few individuals who will provide quality manual outlines, study programs, test prep courses and administer the certification exams. It will increase the cost of testing, and potentially eliminate some very small test companies (AETBs). It will not deliver an improvement in the quality of test programs and reports.

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

- (5) The Practice imposes significant infrastructure and formal staff qualification requirements on AETBs. The infrastructure requirements will be difficult for smaller AETBs to meet requiring formal designation of a quality manager and technical manager, as well as a written quality policy and plan, whereas larger AETBs may already have much of the documentary infrastructure already in place. Commenter notes that the requirement that a Qualified Individual supervise every field test project will cause a significant immediate impact, and given the relatively few QIs presently available, the immediate effect of the proposed addition of Section 6.1.2 will be to significantly limit the availability of RATA and mercury sorbent trap testing services, thus substantially increasing both their cost and the risk of missed deadlines for RATA certifications of CEMS.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 4

- (6) Cooperatives, as small entities with limited resources, rely extensively on outside testing contractors for testing services. The new requirements may increase overall costs as well as the demand on outside testing contractors, which could place NRECA members (cooperatives) and other small entities, at a disadvantage. The commenter believes the agency must, at a minimum, issue a new proposal and ICR that evaluates the costs associated with the new requirements (including the cost to small entities), and provide a reasonable amount of time to allow testing companies and individuals to comply with the new standards.

Commenter: NRECA, EPA-HQ-OAR-2005-0132-0061, p. 6

**RESPONSE (1) – (6):** The experience of the state and federal regulators in the ASTM work group indicates that implementation of the ASTM Practice will result in improved data quality. We believe the evidence is overwhelming 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 Docket Items OAR-2005-0132-0009, -0021, and -0035). Conformance with the Practice does not guarantee that every test will be performed properly. However, conformance with the Practice will reduce the likelihood of problems. Furthermore, it provides a guideline for both regulatory agencies and affected sources to evaluate and select competent testing firms. One of the cornerstones of the Practice is that AETBs must collect performance data on how well they plan and execute test projects. These data must be shared with regulators and clients upon request. It is not possible to state that a particular problem would have been avoided if the AETB were in conformance with the ASTM Practice. People are human; mistakes will sometimes be made; performance will sometimes be inconsistent. As stated above, conformance to the ASTM standard will reduce, not eliminate problems.

In response to concerns regarding the potential for increased level of effort and measurement uncertainty, EPA notes that the quality manager and the technical manager required by ASTM D7036-04 can be the same person. Also, the uncertainty estimation requirement in section 12.10 of the ASTM can be met by complying with approved test protocols which testers should follow anyway. EPA is aware of at least one small (3 people) and one large (55 people) stack testing company that anticipate no problems meeting the requirements in ASTM D7036-04.

In response to claims that ASTM D7036-04 will significantly increase the cost and burden of Part 75 testing, EPA notes that no data are provided to support this claim. The ISO 17025 standard upon which the ASTM standard is based, has been implemented in Europe for many years. Mark Elliot, Chairman of the Stack Testing Association (STA) of Great Britain, has provided the following information on the costs of their programs. Their certification program (for individuals) is called MCERTS.

- MCERTS testing fees: Level 1 \$350; Level 2 \$940
- Technical endorsements (1-4): \$350 each

Note: the Level 2 certification requires a personal interview with the applicant. Please note that according to Mr. Elliot, this program has been successfully implemented in the UK with no small companies going out of business and no complaints of being overly burdensome on industry. In fact, many large companies such as Mobil, Dow, Pfizer, and 3M are members of the STA and fully support the program because, according to Mr. Elliot, they believe it improves the quality of the data provided by testing companies. Even major UK utility companies such as Drax Power, Energy Power Resources, the Electricity Supply Board, PB Power, Scottish and Southern Energy, and ScottishPower participate in the program. And they do this voluntarily because they have found it to their benefit to do so.

There are several differences between the proposed rule and the UK program. First, the proposed rule does not require accreditation. The individual testing requirements in the proposed rule are less expensive and less stringent than the UK program. In the US, The Source Evaluation Society is currently providing Qualified Individual testing. The fees are \$155 for the first test (including a one-time \$15 SES membership) and \$89 for any subsequent tests taken during the same testing session). It should also be noted that ASTM D7036 (and the proposed rule) does not require that every individual be tested. Only one "Qualified Individual" need be present on-site during a test. Therefore, even this minimal cost and burden is considerably less than the successful UK program.

The costs of coming into initial compliance with the D7036 standard depend on the current state of an AETB's quality program. Those that do not currently have an organized quality program will most likely incur greater costs than those who do. In any case, the burden will be no greater than that experienced by the UK companies who successfully went through the same process.

The main costs to comply with the D7036 standard are associated with taking a stack test QSTI (qualified stack test individual) competency exam, and developing or revising a quality assurance (QA) manual. A nationwide compliance cost estimate may be obtained using the following estimates:

- 450 stack test companies in U.S. (The number of private (external) stack test companies came from [www.epa.gov/ttn/emc/software.html#testfirm](http://www.epa.gov/ttn/emc/software.html#testfirm). RMB Consulting, Inc. estimated 10 in-house utility RATA test teams in the U.S.);
- On average, 10 people per company (Source: [www.epa.gov/ttn/emc/software.html#testfirm](http://www.epa.gov/ttn/emc/software.html#testfirm));
- QSTI exam (required by ASTM) costs \$150 and must be taken every 5 years (Source: December 11, 2006 letter from the Source Evaluation Society in Docket OAR-2005-0132); and
- Roughly 1 QSTI is required for every 3 people in a stack test company.

Using these inputs, the Agency estimates the cost to comply with D7036 at about \$100 per yr per company to cover the QSTI exam. There is also approximately a \$4,000 one time cost per company to develop a QA manual (estimate provided by Air Tech, see Docket Item # EPA-HQ-OAR-2005-0132-0093). However, the costs will be borne by the Part 75 sources using the air emission testing bodies, and the Agency notes that these costs will be offset by the savings generated by fewer failed or incorrectly performed relative accuracy test audits, and fewer repeat tests required.

Regarding the issue of the financial impact on smaller companies and the request to provide funds to these companies, EPA notes that small stack test companies were represented on the ASTM work group. At least one small stack test company (3 people) has already complied with D7036, is supportive of the requirement, and expects to actually realize an increase in business because of their compliance with D7036. As stated in another response, the costs to comply with D7036 are reasonable. Similar requirements have been successfully implemented for many years in the UK with no small companies going out of business and no complaints of being overly burdensome on industry. EPA does not expect to provide funds to support small stack test companies in meeting the requirements of D7036.

In response to the issue of ensuring the availability of Qualified Individuals, EPA notes that as of December 11, 2006, 95 people have taken QSTI exams and 60 people have passed. If an external QSTI test is not available to a company, an internal test may be used to meet the requirements of D7036 until an external test becomes available. EPA is aware of at least one large stack test company that has developed a training module for mercury methods meeting the requirements of the D7036, and has trained and tested their people according to the internal qualification exam provision of D7036. When a third party test becomes available, this company has indicated that they will re-certify their people according to the requirements of D7036. The Source Evaluation Society is reviewing steps to improve and expand the QSTI examination process. EPA agrees that a transition period is appropriate, given the testers' relative unfamiliarity with Hg test methods. Therefore, the final rule gives AETBs until January 1, 2009 to comply with ASTM D7036-04.

EPA notes that virtually the same program has been in place in Europe for several years and is functioning very well with the support of stack testers, the government, and industry. The ASTM standard is actually less stringent in some areas than the European program. Based on this extensive experience in Europe, EPA believes that this program can be successfully implemented here in the U.S. with very little additional burden.

In summary, there is an abundance of both data and experience showing that this program can be implemented without an unreasonable burden, and also (according to UK industry participants) that it will improve the quality of data.

- (7) The AETB requirements should be removed from the proposed rule since there is no proper government definition, even given the ASTM reference (it is very ambiguous and refers to accrediting bodies).

Commenter: Source Testing and Consulting Services, Inc., EPA-HQ-OAR-2005-0132-0086, p. 1-3

**RESPONSE:** This standard is nothing new and unknown. It is simply an application of ISO 17025, an international consensus standard for laboratory competence. This standard has been in use in the US and worldwide (in various editions) for over 20 years and is, in fact, an American National Standard under ANSI. The D7036 workgroup simply adapted this standard to be applicable to the unique characteristics of stack testing. The workgroup also added the requirement that individuals performing testing must pass a qualification

exam and be certified as competent by an independent third party. This is an addition to the ISO standard. The ISO standard has been successfully applied to stack testing companies (large and small) in Europe for the past several years.

There will undoubtedly be some discussions between EPA, affected sources and AETB's as this program unfolds that will help define the implementation of the Practice. But this is the case with every new rule and standard.

There is always a balance in standard writing between being overly detailed and prescriptive and being too loose and flexible. The stakeholders involved in the consensus process of ASTM determined that they had achieved the proper balance. D7036 is essentially an international standard that has been used successfully in countries all over the world. Therefore, EPA believes that it can be successfully implemented in the U.S.

**Comment C: The existing infrastructure cannot support the requirement to comply with ASTM D7036-04 since there are currently no organizations offering external qualification exams and the existing certification programs have significant limitations.**

(1) Commenters are not aware of any "recognized, national accreditation body" offering certifications of accreditation with this Method, nor does UARG believe that it would be appropriate to delegate to such a body a determination of regulatory compliance. There is no authorized agency that can administer the test to become a "Qualified Individual." SES admits that their QSTI test is strictly voluntary and may not meet the ASTM criteria. There are no organizations capable of accrediting that a test company meets the ASTM requirements. One commenter (Source Testing) notes that the QSTI program offered by SES is only offered occasionally regionally and is not readily accessible since it is contracted out to ETA.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 24-25; APPA, EPA-HQ-OAR-2005-0132-0081, p. 23; Source Testing and Consulting Services, EPA-HQ-OAR-2005-0132-0086, p. 1-2

(2) Only Louisiana and California offer some type of stack test company certification, but both programs have drawbacks and limitations. The history on LELAC certification is that they "grandfathered" firms working with them then into the program. Should the people "certified" by grandfathering be certified at all, particularly on a national level? At present, only LELAC (Louisiana) can accredit a test company, and there is a long lead time for that which will make it impossible for a new small company to get into the business.

Commenters: Source Testing and Consulting Services, EPA-HQ-OAR-2005-0132-0086, p. 1-2

**RESPONSE (1) – (2):** Neither the proposed rule nor D7036 require accreditation.

The Source Evaluation Society is currently offering qualification exams in several areas. The commenters may be concerned that the SES website states that their exams may not specifically satisfy the requirements of the ASTM Practice (because they were not developed specifically for that purpose). However, SES has updated the wording on their web site to say that their qualification exams do meet the exam requirement of the ASTM Practice. The Stack Testing Accreditation Council (STAC) also recognizes that not only does the SES program meet the requirements of the ASTM standard -- it actually exceeds them. It requires more experience than the ASTM standard and also requires letters of recommendation. STAC accepts an SES certification as meeting the external testing requirements of the ASTM Practice.

If an external QSTI test is not available to a company, an internal test may be used to meet the requirements of D7036 until an external test becomes available. EPA is aware of at least one large stack test company that has developed a training module for mercury methods meeting the requirements of the D7036, and has trained and tested their people according to the internal qualification exam provision of D7036. When a third party test becomes available, this company has indicated that they will re-certify their people according to the requirements of D7036. The Source Evaluation Society is reviewing steps to improve and expand the QSTI examination process.

**Comment D: EPA should investigate the cost of compliance with ASTM D7036-04 and provide additional information in this regard.**

- (1) EPA has provided no estimate of the cost of compliance as required under the PRA, RFA and ICR. If EPA moves forward with the requirement, EPA must at a minimum issue a new proposal and ICR (including the costs to small entities)

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 24-25; APPA, EPA-HQ-OAR-2005-0132-0081, p. 23; Dominion, EPA-HQ-OAR-2005-0132-0088, p. 1; Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** See above response on cost issues. The costs to comply with D7036 will be included in the final information collection request. EPA has already provided a 60-day public comment period for the proposed rule, and has received comments related to the stack tester competency provisions. The Agency believes that this is sufficient notice and comment.

**Comment E: EPA should clarify how compliance with ASTM D7036-04 will be determined.**

- (1) How will compliance with the ASTM and the consequences of noncompliance be addressed? Will RATAs be invalidated retroactively if a test company is later determined to not be in compliance with the ASTM? Who has legal liability for faulty tests?

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 24-25; APPA, EPA-HQ-OAR-2005-0132-0081, p. 23; Dominion, EPA-HQ-OAR-2005-0132-0088, p. 1; NRECA, EPA-HQ-OAR-2005-0132-0061, p. 6

**RESPONSE:** Regarding the first part of this comment, EPA has addressed how compliance will be determined. Section 6.1.2 of Appendix A of the proposal specifically states that there are two ways an AETB can certify compliance: 1) a certificate of accreditation, or 2) a letter of certification signed by senior management. The latter option is similar to the way major sources certify compliance with their Title V permits. However, AETBs are under much more direct regulatory scrutiny than a Title V source. Every state has a field test observer program. In the case of one large stack testing company, Clean Air Engineering, about half of their compliance tests are directly observed by state regulators. This oversight provides an on-going check of whether an AETB remains in conformance. In co-operation with the New Jersey DEP, a standardized state observer checklist is being developed that will facilitate incorporating state observer assessments into the ASTM process.

The second part of the comment addresses the consequences of non-compliance. EPA expects to treat non-compliance with this standard in the same way it treats noncompliance with any other standard -- using its enforcement discretion. EPA does not anticipate invalidating test results because of minor infractions such as the examples in the comment. The proper way to deal with these issues, if either the regulatory authority or the client discovers them, is to notify the AETB that a problem has been found. The AETB is then obligated to initiate a corrective action to address the problem. This becomes part of the AETB's Performance Data required by the Practice. The Agency recommends that the client also ask the AETB to report back on what corrective actions were taken. In the case of serious infractions, EPA may exercise the same authority it has always had to reject the test.

EPA encounters deviations in test methodology routinely in reviewing stack test reports. Minor deviations are noted and reported back to the source but the underlying results are accepted. Major deviations result in a rejection of the test. This situation is no different. This Practice should be treated much like a test method in this regard. Minor deviations may be of the type the commenters cite in its examples. Major deviations may include (for example) not having a Qualified Individual on-site, not having proper calibration records for the equipment used, or failing to follow through with corrective actions when required.

There will undoubtedly be some discussions between EPA, affected sources and AETB's as this program unfolds that will help define the implementation of the Practice. But this is the case with every new rule and standard.

There is always a balance in standard writing between being overly detailed and prescriptive and being too loose and flexible. The stakeholders involved in the consensus process of ASTM determined that we had achieved the proper balance. It is important to keep in mind that ASTM D7036 is essentially an international standard that has been used successfully in countries all over the world.

**Comment F: EPA should exclude plant employees and/or extend the implementation period prior to the requirement that testing be conducted by an AETB that conforms to ASTM D7036-04.**

- (1) Regarding the proposed revisions to § 6.1 of Appendix A, which would require all individuals who perform the emissions tests and CEMS performance evaluations required by Part 75 to demonstrate conformance with ASTM D7036-04, EPA should allow for at least a one year transition period (from promulgation of the final rule) to allow time for an AETB to conform to ASTM D7036-04. Further, EPA should impose this requirement only on outside contractors performing these tests since requiring plant employees to demonstrate proficiency with reference methods proposed for certification (other than RATAs) would be burdensome.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 6

- (2) If EPA adds the new requirements in Appendix A § 6.1.2, there should be a transition period of at least 2 years in order to enable AETBs to add the required infrastructure and staff to comply with the new requirement. Commenter provides additional discussion, noting that there are relatively few Qualified Individuals (QIs) and that the proposed addition of § 6.1.2 would result in a limited availability of RATA and mercury sorbent trap testing services, which in turn could lead to missed deadlines for RATA certifications of CEMS.

Commenter: Council of Industrial Boiler Owners (CIBO), EPA-HQ-OAR-2005-0132-0063, p. 4-5

- (3) The proposed rule does not allow an implementation period prior to the requirement that RATA testing be conducted by an AETB conforming to the requirements of ASTM D7036-04. The final rule should either exclude RATA testing done by employees of the affected source(s) from the ASTM requirements or provide a two-year implementation period to allow for the establishment and/or conversion of procedures and systems in a format necessary to provide for ASTM conformance.

Commenter: Eastman Chemical Company, EPA-HQ-OAR-2005-0132-0074, p. 2

- (4) The commenter notes the need for a transition period of at least one year after promulgation of the final rule for an AETB to conform to ASTM D7036-04.

Commenter: PSEG Power, LLC, EPA-HQ-OAR-2005-0132-0084, p. 3

**RESPONSE:** EPA believes that any AETB, including plant employees, should comply with ASTM D 7036-04. The qualified individual need only pass the experience and knowledge requirements of section 8 of the ASTM for the test methods required for the RATA or stack test. EPA sees no reason why the requirements on an internal test group

should be any more expensive or burdensome than on a private stack testing company. To the contrary, the Agency believes that even the smallest utility company has a revenue stream considerably greater than the largest stack testing company and is better able to absorb the relatively minor costs of implementing this program (see cost estimates in response to Comments 5.2B(1) through B(6), above).

Regarding the issue of whether to allow for a transition period, EPA agrees that a transition period is needed. However, EPA believes that the 2 year period suggested by one commenter is unnecessarily long. As of December 11, 2006, 95 people have taken QSTI exams and 60 people have passed. The Source Evaluation Society is reviewing steps to improve and expand the QSTI examination process. Many AETBs (including some small companies) are already going through or are about to begin the process of STAC accreditation. According to the Chair of the ASTM D 7036 work group: (a) more newly accredited companies are expected each quarter during 2007; (b) by the end of 2007, a significant percentage of the AETB community is expected to be accredited; and (c) others will choose not to go through the accreditation process and will opt for senior management certification, as allowed by D7036 and the final rule.

External QSTI tests should not be a bottleneck to an AETB because it may conduct an internal test to meet the requirements of D7036 until an external test becomes available. EPA is aware of at least one large stack test company that has developed a training module for mercury methods meeting the requirements of the D7036, and has trained and tested their people according to the internal qualification exam provision of D7036.

EPA expects that the efficiency of providing external testing to AETB personnel will continue to improve; and that the internal test provision of D7036 will mitigate any external testing bottlenecks that might occur. In view of these considerations, and given the testers' relative unfamiliarity with Hg test methods, the Agency believes that a transition period of about a year will provide adequate time for AETBs to comply with D7036. Therefore, the final rule requires compliance with D7036 beginning on January 1, 2009.

**Comment G: EPA's support of the proposed stack tester accreditation program undermines existing programs based on NELAP.**

- (1) The commenter appreciates and values EPA efforts to "support the proposed stack tester accreditation program," as stated in the Summary on page 49255 of the proposed rule. However, EPA's support of this evolving program undermines existing accreditation programs based on National Environmental Laboratory Accreditation Program (NELAP), a program funded and promoted by EPA, which some AETBs have previously achieved and maintained for several years. Commenter provides significant additional discussion including the identification of specific proposed definitions and requirements that would limit the relevance of existing National Accreditation Programs. Commenter provides specific recommendations for minor wording changes in the rule that would eliminate confusion, strengthen the proposed rule, and support the advancement of ASTM D7305-04.

Commenter: Weston Solutions, Inc., EPA-HQ-OAR-2005-0132-0080, p. 1-4

**RESPONSE:** EPA disagrees with the commenter. The Agency believes that allowing consideration of LELAP or other state-based programs in the final rule is not in the best interests of stack testers, the regulated community, or regulatory agencies for the following reasons. The ASTM program is a national program; LELAP and NELAC are state-based programs, requiring that fees be paid on a state-by-state basis. If EPA allowed consideration of LELAP in this rule, it would open the door to other state programs with state-by-state fees and potentially differing requirements.

While LELAP is modeled after the NELAC program, there is no link to other NELAC states, and no states, other than Louisiana, have adopted this approach. Furthermore, after checking with several NELAC states and with David Spies, the co-Chair of The NELAC Institute (the current version of the NELAC program) there are no states with plans at this time to adopt the LELAP approach.

LELAP is not a consensus standard; the NELAC standards are not consensus standards. They fail to meet the requirements of the National Technology Transfer and Advancement Act (NTTAA) and the requirements of OMB Circular A-119 that require government agencies to use consensus standards when available. ASTM D7036 is a consensus standard that meets all the requirements of the NTTAA and the OMB Circular.

The commenter may lead one to believe that the LELAP approach and the ASTM approach would lead a stack testing company in two different directions. Quite to the contrary, Clean Air Engineering, a large stack testing company, found that their preparation for LELAP accreditation actually assisted them in preparing for ASTM.

EPA notes that the LELAP program does not require individual certification. The ASTM program is more comprehensive in that it not only addresses organizational competence, but individual competence as well. EPA believes that testing individual competence is necessary for a successful program because individuals, not companies, perform stack tests.

The final rule allows AETB's to opt for senior management certification of compliance. As stated above, the LELAP accreditation takes an AETB most of the way toward conformance with the ASTM. A stack testing company can implement the individual certification requirements of the ASTM standard, fill in a few additional gaps that LELAP does not address, and then choose senior management certification of compliance. The LELAP accreditation would provide additional credibility in this example.

The stack testing industry has overwhelmingly rejected the LELAP/NELAC approach (See June 10, 2004 letter from the Source Evaluation Society, [Docket Item # \\_\\_\\_\\_\\_](#)). Clean Air Engineering (CAE), a large stack testing company, has held LELAP accreditation for several years and is familiar with the LELAP program and process. CAE disagrees with the commenter and strongly supports requiring ASTM D7036, as does GOLDEN Specialty, Inc., and the stack testing industry association, the Source Evaluation Society.

The LELAP program was designed to meet the needs of the State of Louisiana. Nothing in the final rule undermines the credibility or utility of LELAP. One large stack testing company that EPA knows of, Clean Air Engineering, has stated that they intend to maintain both accreditations. However, they do not want a patchwork of other state programs that would require them to maintain multiple accreditations. LELAP was created before the ASTM standard and Louisiana has every right to continue that program. There are no other state programs at this time. The Agency hopes that other States will opt to adopt ASTM D7036 rather than their own individual program.

**Comment H: EPA should revise the language of the proposed rule to extend emission testing opportunities to firms with commitments to audited accreditation programs of relevant scope.**

- (1) The commenter notes that EPA's support of ASTM D7036-04 comes at the expense of those firms that have built equivalent - perhaps better, as demonstrated by a compulsory independent audit - quality management systems on the full requirements of ISO 17025 as implemented through National Environmental Laboratory Accreditation Program (NELAP)-recognized accrediting authorities such as Louisiana Environmental Laboratory Accreditation Program (LELAP).

Commenter: Summa Consultants, Inc., EPA-HQ-OAR-2005-0132-0065, p. 2

**RESPONSE:** See response to Comment G (above) as submitted by Weston Solutions. For those who choose accreditation, the assessor will make the determination of conformance to ASTM D7036. For those who choose a senior management certification, an internal auditor will make that determination. However, under the requirements of the Practice, the documentation to support that determination must be made available to clients and regulatory authorities for review.

**Comment I: EPA should clarify how the requirements for "qualified individuals" would apply to new or revised test methods.**

- (1) Commenters present several specific questions in this regard, including the following: 1) Does an individual have to become "requalified" each time a test method is updated? 2) Would an individual with 10 years of experience performing Method 7 be qualified to conduct the methods recently revised or would he/she have to find 10 non-Part 75 tests in which to participate? and 3) How will test teams become qualified to conduct Hg reference methods, including any new methods approved by EPA? The EPA CAMD and the TTN network website should have very clear instructions explaining this process including EPA prepared "Q and A" material that is updated every few months.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 26; APPA, EPA-HQ-OAR-2005-0132-0081, p.24-25

**RESPONSE:** The commenters raise some very good questions that the ASTM D7036 workgroup considered when drafting the Practice. The workgroup recognized that test methods change over time. To accommodate this, D7036 requires that all qualified individuals re-test every five years. However, if a method is modified in the interim, the Practice has requirements for the AETB to provide training to keep personnel and procedures up-to-date for any new or revised methods, and to evaluate the effectiveness of such training (See ASTM D7036 Sections 8.1, 8.2, 8.4, 12.6 and 12.9).

Regarding new methods, the Practice states that anyone with more than one year of experience can be internally certified as a "qualified individual" by essentially going through the same training and evaluation requirements as those given for external certifications. The only time the "ten test" requirement in Section 8.3.4.1 of ASTM D7036 would apply is if an AETB wanted to certify an individual with less than one year experience as a qualified individual. The workgroup did not anticipate this happening very frequently.

If an external QSTI test is not available to a company, an internal test may be used to meet the requirements of D7036 until an external test becomes available. EPA is aware of at least one large stack test company (Clean Air Engineering) that has developed a training module for mercury methods meeting the requirements of the D7036, and has trained and tested their people according to the internal qualification exam provision of D7036. When a third party test becomes available, this company has indicated that they will re-certify their people according to the requirements of D7036. Additionally, the Source Evaluation Society is reviewing steps to improve and expand the QSTI examination process. EPA will post D7036 questions and answers on the CAMD web site, on an as-needed basis.

**Comment J: EPA should clarify how quality assurance or oversight will be handled in the context of requiring compliance with ASTM D7036-04.**

- (1) By requiring compliance with ASTM D7036-04, EPA has mandated a certification requirement with third party proficiency testing. Is there also an EPA oversight program

with standards for the testers? Will the test material/content be reviewed by EPA? Certification exams exist for many programs, but their effectiveness is questionable. Once a certification program is implemented, will there be a means to evaluate the impact of the program to determine if the number of "improperly performed tests" has diminished? Is there a quantification of that number now? What benchmarks will EPA use to evaluate the certification program?

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** ASTM D 7036-04 defines "qualification exam provider", in part, as "a recognized association of AETBs". As such, each member of this association, in a sense, provides oversight for each other member. Currently, the Source Evaluation Society, which is comprised of stack testing companies, and State and EPA members, creates and reviews the qualified individual examination questions.

The state and federal regulators in the ASTM work group believe that the evidence is overwhelming 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 Docket Items OAR-2005-0132-0009, -0021, and -0035).

Conformance with the Practice does not guarantee that every test will be performed properly. However, conformance with the Practice will reduce the likelihood of problems. Furthermore, it provides a guideline for both regulatory agencies and affected sources to evaluate and select competent testing firms. One of the cornerstones of the Practice is that AETBs must collect performance data on how well they plan and execute test projects. This data must be shared with regulators and clients upon request. EPA may also rely on State field test observer programs, and a standardized State observer checklist, currently being developed, to track improvements as implementation of the ASTM Practice progresses.

**Comment K: EPA should clarify other items associated with the compliance requirements associated with ASTM D7036-04.**

- (1) EPA would need to state that the failure of an AETB presenting a certificate of compliance to comply with the ASTM would not affect the validity of a RATA or emission test result, or constitute a violation by the source.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 26; APPA, EPA-HQ-OAR-2005-0132-0081, p. 24;

**RESPONSE:** EPA disagrees with this statement. The commenters appear to be suggesting that there should be no adverse consequences to noncompliance with the requirement. Requiring AETBs to conform to the ASTM Practice is no different than requiring adherence to the quality control measures found in any test method. If a tester failed to follow required testing procedures, EPA would (or could) invalidate the test. The Agency believes that the same principle applies here. EPA has enforcement discretion to

determine whether an AETB's deviations from D7036 are significant enough to warrant invalidation of the test. This is the same authority that EPA has always had with respect to stack test results.

- (2) What sort of personnel is qualified to perform the annual audit of the AETB's quality manual? And the AETB's compliance with it? How effective is such an audit if the determination of effective corrective action is "at the discretion of the AETB"?

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 26; APPA, EPA-HQ-OAR-2005-0132-0081, p. 24; Dominion, EPA-HQ-OAR-2005-0132-0088, p. 1-2

**RESPONSE:** Regarding the "who" part of this question, the "qualified" requirement is standard terminology for ISO 17025 (e.g., see Section 4.14.1) and has been interpreted without problem in labs in the U.S. and worldwide for many years. The common sense answer to this question is that the auditor (or audit team) must be at least somewhat familiar with both audit procedures and the technical issues involved. The latest version of ISO 17025 (2005) specifies that the Quality Manager is responsible for planning and organizing audits.

The second part of the comment regarding the "discretion of the AETB" is not an accurate statement of what D7036 requires. It implies that an AETB can do anything and claim it is effective. However, the next sentence of the Practice states, "The AETB shall document the effectiveness of the corrective action taken." This documentation is available to external auditors and to others assessing the competency of the AETB. If the action is not effective, the AETB must re-analyze the problem and take additional action until the problem is solved (See ASTM D7036, Section 19). This language was put into the standard to ensure that the appropriate technical people would design and implement the corrective action and not the auditor.

- (3) EPA should clarify who the following individuals/organizations are: "persons or organizations evaluating its (AETB's) competence" (Section 5.4.11) and the "organizational group that performed the original review" of documents (Section 6.3).

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** Section 5.4.9 of D7036 states that the quality manager is responsible for planning audits. Note 11 of D7036 suggests that external audits be performed by bodies recognized by the National Cooperation for Laboratory Accreditation. Regarding Section 6.3, EPA interprets the "organizational group that performed the original review" of documents to be the group that first wrote and/or reviewed the document.

- (4) Section 7.2 requires a "documented quality system" with no definition of the term. Since this is modeled after ISO, is there an understanding of what is actually involved in the creation of and documentation for a quality system?

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** One commenter thought that the term “documented quality system” was unclear in D7036. EPA believes that the term is sufficiently defined in Sections 7.2.1 and 7.2.2 and Note 7. However, as D7036 is implemented, EPA will develop explanatory questions and answers, as needed.

(5) Section 12.3 and 12.4 requires a "site-specific test plan (protocol) " for each test project. In Note 19, it suggests that "AETBs adopt a standard test plan format. " Currently, not all states require the submission of a protocol, and several have their own unique format. In light of the current lack of consistency, it is not a certainty that a standard protocol format will be acceptable.

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** EPA interprets Note 19 as a recommendation that AETBs adopt a standard test plan format and use it in situations where another format is not required.

(6) Commenter suggests a model for a definition of "nationally recognized" to help clarify the provision in Section 6.1.2(b)(1) of Appendix A to Part 75, "A certificate of accreditation of relevant scope issued by a recognized, national accreditation body."

Commenters: Delta Air Quality Services, EPA-HQ-OAR-2005-0132-0056, p. 1

**RESPONSE:** EPA notes that ASTM D 7036-04 does not require accreditation. However, the Stack Testing Accreditation Council (STAC), a non-profit organization, is currently accrediting stack testing companies to the ASTM Practice. The Source Evaluation Society, the stack testing industry association, recognizes STAC as a credible accreditation body. The New Jersey Department of Environmental Protection is an active participant in the accreditation process. Participants also include a broad range of stack testing companies (large and small), electric utilities, and other users of stack testing services.

EPA has long recognized private sector accreditations for conformance with competency standards. See for example EPA’s National Lead Laboratory Accreditation Program (NLLAP). Under this program, EPA recognizes accreditations issued by both the American Industrial Hygiene Association (AIHA) and A2LA. The Agency believes that given the wide recognition of the current accrediting body (STAC) by the stack testing industry, that a definition of "nationally recognized" is not necessary.

(7) What does it mean for an AETB to be "legally identifiable" and to "meet the legal requirements of the governmental jurisdiction in which it conducts business"?

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 26; APPA, EPA-HQ-OAR-2005-0132-0081, p. 24; Dominion, EPA-HQ-OAR-2005-0132-0088, p. 1-2

**RESPONSE:** The chairman of the D7036 ASTM workgroup and EPA believe that the commenters are interpreting the requirement too narrowly. EPA is aware of companies that have internal laboratories that meet the ISO 17025 standard (the basis of this ASTM Practice), and they simply identify themselves as the “parent” company for the purposes of conformance with the standard. These are issues that are well defined in the international community and in U.S. laboratories. They have been successfully dealt with for the past 20 years. The suggestion that internal test teams would have to incorporate or get a business license in order to conform to D7036 is not at all required or implied in the language of the Practice.

(8) Who determines what it means to be organized so that confidence in [the AETB’s] independence of judgment and integrity is maintained at all times.? *Id.* § 5.4.5. Whose confidence is being sought -- EPA’s, the utilities, or the AETB’s? And how do you know when the necessary level of confidence has been achieved?

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 26; APPA, EPA-HQ-OAR-2005-0132-0081, p. 24; Dominion, EPA-HQ-OAR-2005-0132-0088, p. 1-2

**RESPONSE:** The language in D7036 is standard ISO language that has been implemented successfully worldwide without a problem. This issue may be of particular concern for utilities with in-house testing capabilities.

Regarding the first part of the comment asking who makes the determination, the answer depends on the AETB’s approach to demonstrating compliance. For those who choose accreditation, the assessor will make that determination based on the degree of independence shown in the organizational structure and possibly interviews with the testing staff. For those who choose a senior management certification, an internal auditor will make that determination. However, under the requirements of the Practice, the documentation to support that determination must be made available to clients and regulatory authorities for review.

Whose confidence is being sought? Everyone’s. The AETB should be comfortable that its test results are objective and accurate; EPA has the same desire, and expects that the client would, too.

The last issue raised in this comment is the “necessary level” of confidence required. EPA believes that the necessary level is that which satisfies the applicable regulatory agencies and the client.

**Comment L: The requirement to comply with ASTM D7036-04 necessitates a new licensing/certification program that will in turn, create another level of bureaucracy.**

(1) This requirement will create a "qualified individual" for hire, and the "qualification credentials" will potentially give a regulated entity (client) a false sense of security, and an "out" for questionable testing.

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** EPA believes that having at least one on-site stack test supervisor who is experienced and knowledgeable in the test method(s) being performed will improve the chances of a successful test.

(2) The presence of knowledgeable Federal, state and local inspectors on-site during testing is the real solution.

Commenters: Catalyst Air Management, EPA-HQ-OAR-2005-0132-0089, p. 1-2

**RESPONSE:** EPA agrees that having knowledgeable Federal, state or local observers on-site is always desirable, but is not sufficient in and of itself.

**Comment M: Issues associated with the certification of AETBs should not be addressed in Parts 72 and 75.**

(1) The issues of certification of AETBs and of “Qualified Individuals” need to be addressed in some regulation other than Parts 72 and 75. EPA must defer to EMC on these issues and the proper course of action for EPA would be to define this much more clearly and not in the Acid Rain program. Regarding “Qualified Individual”, SES QSTI certification is the closest we have now, but it is not a requirement and SES has no real authority.

Commenter: Source Testing and Consulting Services, Inc., EPA-HQ-OAR-2005-0132-0086, p. 1-3

**RESPONSE:** Part 75 affects thousands of electric utility units and includes almost every electric utility unit in the U.S. The Agency believes that requiring compliance with D7036 for any AETB that performs relative accuracy test audits on Part 75 affected units is a good start. EPA agrees that during implementation of the stack testing competency requirements in the final rule, questions may arise. EPA will post D7036-related questions and answers on the CAMD web site, as often as needed.

The commenter may be concerned that the SES website states that their exams may not specifically satisfy the requirements of the ASTM Practice (because they were not developed specifically for that purpose). However, SES has updated the wording on their web site to say that their qualification exams do meet the exam requirement of the ASTM Practice. The Stack Testing Accreditation Council (STAC) also recognizes that not only does the SES program meet the requirements of the ASTM standard -- it actually exceeds them. It requires more experience than the ASTM standard and also requires letters of recommendation. Both EPA and STAC accept an SES certification as meeting the external testing and experience requirements of the ASTM Practice.

### 5.3 Other Reporting Issues

**Comment A: EPA should clarify when reporting instructions will be released.**

- (1) EPA should indicate whether the EDR will contain a confirmation code indicating that testing was performed by an AETB and where the Maximum Controlled Emission Rate value will be stored and reported.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: Draft reporting instructions have been posted on EPA's website. Final versions will also be posted with the final version of the reporting software that will be used to validate and submit emissions data to EPA.

**Comment B: Information collected by utilities under a market-based program may not be appropriate for use under other programs.**

- (1) While ensuring that the data collection process is more accurate and accessible through the utilization of a true database format, EPA should ensure that those who use the data understand the limitations of the information and the purpose for which it was collected. With respect to the use of substitute data under the Part 75 missing data provisions, EPA should be mindful of these issues as it moves forward with the database concept.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079 p. 2; APPA, EPA-HQ-OAR-2005-0132-0081, p. 3

Response: No response required.

**Comment C: The commenter believes § 75.61(a)(7) should be more specific concerning the Agency's expectations when a unit resumes operation after prolonged shutdown.**

- (1) More specifically, EPA should clarify whether a unit that has been in long term cold storage would be classified as a "new source" or an "existing source" when it resumes operation. The commenter recommends that these units remain classified as "existing" sources.

Commenter: The Class of '85 Regulatory Response Group, EPA-HQ-OAR-2005-0132-0060, p. 5

- (2) The commenter would prefer that § 75.61(a)(7) was more specific particularly with regard to designation as a "new source" or an "existing source" on resumption of operation. EPA should consider adopting portions of the PA DEP's regulation regarding unit reactivation. Applicable sections include requirements to have a maintenance plan during deactivation periods and consider the amount of time a unit has been inoperable when deciding if it is regulated as a "new" or "existing" source upon reactivation.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 3

**Response (1 and 2):** Units that are placed into “long term cold storage” (LTCS) are considered to be existing sources when operation is resumed. Long term cold storage status is intended to be used solely to: (1) register with EPA the fact that the unit will not be operated in the foreseeable future; and (2) obtain relief from the quarterly reporting and quality assurance requirements of Part 75 until the unit resumes operation. Notifications and recertification of the monitoring systems are required when the unit resumes operations. EPA has finalized the LTCS provisions as proposed.

**Comment D: Provides suggested revisions to reporting of fuel oil characteristic values.**

(1) The commenter requests that Appendix D be revised to allow (as an option) the GCV, Sulfur and Density values determined for the primary fuel oil to be reported for any hour a blended fuel oil is fired, so long as the added (blended) component either: (a) has no GCV or sulfur content, such as water; or (b) constitutes a higher grade fuel than the primary fuel (e.g. No. 2 oil vs. No. 6 oil), as higher grade fuels have inherently lower sulfur, GCV and density content. Such an option would result in conservative reporting of fuel oil characteristic values.

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 5-6

Response: This comment is not within the scope of this rulemaking. Therefore, no response is required.

**Comment E: EPA should provide sufficient flexibility and/or relief for shutdown units and LTCS units.**

(1) EPA should finalize the proposed revisions to 75.4(d) to ensure that shutdown units and units in cold storage have relief from the upcoming 2008 and 2009 monitoring system certification deadlines under CAIR and CAMR.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 3; APPA, EPA-HQ-OAR-2005-0132-0081, p. 4-5

Response: EPA has finalized these provisions as proposed.

(2) EPA should clarify that the identification of a unit as being in long term cold storage is optional. A source owner/operator that intends a unit to remain in storage for 2 years but is uncertain if it will, should not be required to file a notice if the owner/operator does not want to take advantage of the relief provided in 75.4(d) and 75.64. The commenter questions why the requirement to recertify the monitoring system should be triggered by the notice of intent and not by the actual amount of time the unit was in storage, and requests that EPA limit the recertification requirement accordingly.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. 3; APPA, EPA-HQ-OAR-2005-0132-0081, p. 4-5

Response: EPA intends for “long term cold storage”(LTCS) to be an optional status that a source owner/operator may choose for their unit, where the unit and the associated monitoring systems are expected to be shutdown for an extended period time. For sources that have filed for LTCS status, no quality assurance or maintenance of the monitoring systems or data reporting are required. However, once the source owner/operator decides to resume operations, EPA assumes that the monitoring systems will need to be re-initialized and therefore must be recertified. Also, EPA’s intent is that the LTCS provisions be used only for very long shutdown periods where the normal quality assurance deadlines will expire. EPA does not intend for sources to use (misuse) the LTCS provisions for shorter periods of non-operation in order to avoid submitting quarterly reports.

**Comment F: EPA should clarify use of heat input values when Equation F-17 results in a negative hourly heat input rate.**

- (1) The commenter notes that Appendix F § 5.2.3 instructs sources to report 1.0 mmBtu/hour heat input whenever Equation F-17 results in a negative hourly heat input rate. EPA should clarify whether this capping is restricted to Equation 17 or applies to other equations as well. EPA should also clarify what value is used when the calculated heat input is greater than or equal to 0.0 and less than 1.0 and whether the cap of 1.0 and MODC 26 applies in this situation.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 3

Response: Whenever an equation for the heat input rate gives a zero or negative result during an hour of operation, 1.0 mmBtu/hr should be recorded and reported as the heat input rate for that hour. In the final rule, section 5.2.3 of Appendix F clarifies that Equation F-17 is the only equation for which zero or negative values of heat input rate are expected

**Comment G: EPA should clarify provisions regarding units of measure.**

- (1) Regarding the new unit of measure for operating load, the commenter requests confirmation that an existing source would not be allowed to change from the existing MWe of steam flow units to the new mmBtu/hour units, and asks how a source, if allowed to change, would handle missing data lookback. The commenter also asks if there should be a threshold, expressed in mmBtu/hour output measure, in Appendix D, § 2.1.7.2(h), and if tiered performance specifications for stack flow-to-load in Appendix B, § 2.2.5(b) should also accommodate the new unit of measure.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: Existing sources may switch to the new units of measure for steam load, if deemed appropriate. The new units of measure should be handled in a manner consistent with dealing with steam load in lb/hr.

**Comment H: EPA should eliminate the diluent capping and CO<sub>2</sub> calculation provisions.**

- (1) EPA should remove the requirement for "indication of the use of a diluent cap for heat input calculation for hourly values" in § 75.57(b)(7), along with the CO<sub>2</sub> hourly value calculations for § 75.57(e)(1)(x). Diluent capping for heat input and CO<sub>2</sub> calculations are no longer acceptable under Part 60, Appendix F.

Commenter: Reliant Energy, EPA-HQ-OAR-2005-0132-0085, p. 3

Response: These provisions cannot be removed at this time, since EPA is supporting the existing EDR format through the end of 2008.

**Comment I: Opposes the proposed Initial Certification Deadline report.**

- (1) The commenter suggests that rather than requiring a separate notification to the EPA of Monitoring System Initial Certification Deadlines, as proposed in the August 22, 2006 revised 40 CFR 75 provisions, these dates be reported in the electronic Monitoring Plan through a new RT. Note that the original Monitoring Plan submittal for a new unit will likely occur before Initial Monitoring System Certification Deadlines are known. To address this issue, the MDC and ETS checking software could identify the absence of data in this RT as an "Informational Error" until 90 days of combustion unit operation had elapsed, at which time it would become a critical error (except for fuel meters, for which the critical error would be based on the number of elapsed fuel use days).

Commenter: Robert Machaver, EPA-HQ-OAR-2005-0132-0071, p. 7

- (2) The new notification requirement under § 75.61(a)(8), which addresses the certification deadline for new or newly affected units, is unnecessarily burdensome on the regulated community. It does not improve compliance or reporting efficiency. This citation should be deleted from the proposed revisions.

Commenter: Tennessee Valley Authority, EPA-HQ-OAR-2005-0132-0087, p. 4

Response to Comments (1) and (2): For a new or newly-affected unit, it is not appropriate to report the date of the initial certification deadline in the electronic monitoring plan. Rather, this date is an essential data element that will be managed using the web-based CAMD Business System (CBS). The certification deadline is needed to correctly assess when the emissions data should be counted for compliance in the first year of a new source's participation in the Acid Rain Program (ARP). For the ARP and other programs, knowing this date also confirms that the monitoring systems either have or have not been certified by the legal deadline. Since the notification can be made electronically using the CBS, EPA does not agree that reporting this information will be burdensome.

**Comment J: Requests clarification on specific reporting and recordkeeping issues.**

- (1) Commenter notes that new Method Code 26 is used when the calculated heat input rate is zero or negative and requests clarification on whether there should be a method code for use when calculated CO<sub>2</sub> (from Equation F-14b) is zero or negative.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: EPA has not incorporated the commenter's suggestion into the final rule. Rather, EPA has revised the description for method of determination code (MODC) "21" in Table 4a of §75.57(c)(4) to include the case when negative CO<sub>2</sub> values are calculated using Equation F-14b..

- (2) Commenter asks if the test number required to be recorded in § 75.59(a)(4)(vi)(N) is the existing test number in RT 605, col. 25 that represents the most recent passing normal load flow RATA, or if it is a new test number identifying the flow-to-load test.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 3

Response: This is a unique test number identifying the particular flow-to-load test. Please refer to the applicable electronic data reporting instructions for QA and certification data for more details on the use of this data field.

## 6. Miscellaneous Issues

### **Comment A: Supports comments submitted by other commenters.**

- (1) Supports UARG comments.

Commenters: The National Rural Electric Cooperative Association (NRECA), EPA-HQ-OAR-2005-0132-0061, p. 3; Dominion Generation, EPA-HQ-OAR-2005-0132-0088, p. 1; Duke Energy Corporation, EPA-HQ-OAR-2005-0132-0066, p. 1; APPA, EPA-HQ-OAR-2005-0132-0081, p. 1

Response: No response required

- (2) Supports comments submitted by Clean Air Engineering.

Commenter: GOLDEN Specialty, Inc., EPA-HQ-OAR-2005-0132-xxxx

Response: No response required

### **Comment B: Requests that EPA address specific typos or grammatical errors in the rule.**

- (1) Typo - "component" (75.59(a)(6)(i))

Commenter: Public Commenter, EPA-HQ-OAR-2005-0132-0068, p. 1

Response: EPA has corrected the typo.

(2) Grammatical revision - 75.32(b) Remove "the" that precedes "each" in the second sentence.

Commenter: Thomas Gasioli, MDEQ-AQD, EPA-HQ-OAR-2005-0132-0070, p. 2

Response: EPA has corrected the grammatical error.

(3) Commenter cites to several minor typos (see chart in comment letter).

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 3

Response: EPA has corrected the typos, as appropriate.

(4) There is a typo in the second to last sentence of Appendix A, § 6.4

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p.29; APPA, EPA-HQ-OAR-2005-0132-0081, p. 26

Response: EPA has corrected the typo found in the third-to-last sentence in section 6.4 of Appendix A.

**Comment C: Requests clarification on issues related to "Pipeline Natural Gas -- Method of Qualification and Monthly GCV Values"**

(1) The commenter requests clarification on whether sources that sample fuel for GCV on every operating day must back-calculate each daily heat input at the end of the month once all the samples have been taken and entered. The commenter also requests clarification regarding the approach that sources using on-line, real-time gas chromatographs should take.

Commenter: Environmental Systems Corporation, EPA-HQ-OAR-2005-0132-0076, p. 2

Response: The revisions to section 2.3.4.1 of Appendix D apply only to the GCV sampling of natural gas. Appendix D requires monthly sampling of natural gas. If GCV samples of the natural gas are taken daily (or more frequently) during the month, revised section 2.3.4.1 requires the results to be averaged. Therefore, the average GCV value for a particular month can only be determined after all of the samples taken during the month have been analyzed. Then, consistent with Table D-5, the GCV value used in the calculations will either be: (1) the most recent monthly average; (2) the highest monthly average from the previous year (unless exceeded); or (3) the maximum value allowed in the fuel contract (unless exceeded). The final rule amends section 2.3.7(c) of Appendix D, to explain how the results of the monthly GCV sampling are applied when multiple samples are taken and averaged. Note that the method of applying the average GCV value described in section 2.3.7(c) differs from the method that was proposed in section 2.3.4.1. The text of paragraph (b)(2) in section 2.3.7 has also been modified to address

the new alternative methodology for making annual assessments of the sulfur content of natural gas.

- (2) EPA should clarify that the rule revisions in Appendix D, 2.3.1.4 for users of PNG to verify and document PNG qualification on an initial and ongoing basis by determining monthly average sulfur contents of at least 100 daily total sulfur samples, is optional. Commenter suggests specific language for this revision, and also notes that the first sentence in 2.3.1.4(a)(2) is grammatically incorrect and should be revised.

Commenters: UARG, EPA-HQ-OAR-2005-0132-0079, p. RMB7

Response: In the final rule, the language in section 2.3.1.4 has been slightly modified to make it clearer. Regarding the commenter's concern about the grammar in section 2.3.1.4(a)(2), there is no need to modify it. Paragraph (a)(2) is prefaced by introductory text followed by a colon, indicating that (a)(2) is one of several options. When it is read together with the introductory text, paragraph (a)(2) makes sense.