BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R09-10
PROPOSED AMENDMENTS TO	)	(Rulemaking – Air)
35 ILL. ADM. CODE 225	)	
CONTROL OF EMISSIONS FROM	)	
LARGE COMBUSTION SOURCES	)	

NOTICE

TO: John Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601

SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S THIRD ERRATA SHEET TO ITS PROPOSAL TO AMEND 35 ILL. ADM. CODE 225 of the Illinois Environmental Protection Agency a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s__Charles E Matoesian___
Charles E. Matoesian
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DATED: February 6, 2009
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THIS FILING IS SUBMITTED
217.782.5544 ON RECYCLED PAPER
217.782.9143 (TDD)

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S THIRD ERRATA SHEET TO ITS PROPOSAL TO AMEND 35 ILL. ADM. CODE 225

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by and through its attorneys, and submits this Third Errata Sheet to its proposal to amend 35 Ill. Adm. Code 225. The Illinois EPA proposes the following amendments to the text of the rules submitted in its proposal to the Board dated October 2, 2008, revised by the Agency's First Errata, submitted to the Board on December 2, 2008, and further revised by the Agency's Second Errata, submitted to the Board on January 14, 2009:

1. *The Agency proposes correcting a punctuation error made in the Second Errata. In item 2, changes were made to the definitions of "NIST traceable elemental mercury standards" and "NIST traceable source of oxidized mercury." Commas that were added when extending both definitions were accidentally shown as being stricken, and the existing periods were not shown as being stricken. The correct definitions should have read:*

> "NIST traceable elemental mercury standards" means either:
>
> (1) Compressed gas cylinders having known concentrations of elemental mercury, which have been prepared according to the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards"; or
>
> (2) Calibration gases having known concentrations of elemental mercury, produced by a generator that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators~~,~~" or an interim version of that

protocol until such time as a final protocol is issued.

"NIST traceable source of oxidized mercury" means a generator that is capable of providing known concentrations of vapor phase mercuric chloride (HgCl2), and that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Mercuric Chloride ~~Oxidized Mercury~~ Gas Generators~~,~~" or an interim version of that protocol until such time as a final protocol is issued.

2. *The Agency proposes amending Section 225.130 to remove the definition for "Designated Representative." This proposed amendment is in response to industry comments that the term is not necessary and would lead to confusion.*

Section 225.130 Definitions

The following definitions apply for the purposes of this Part. Unless otherwise defined in this Section or a different meaning for a term is clear from its context, the terms used in this Part have the meanings specified in 35 Ill. Adm. Code 211.

~~"Designated representative" means, for the purposes of Subpart B of this Part, the natural person who is designated by the owner or operator of an EGU, in a letter to the Manager of the Bureau of Air's Compliance Section, to be responsible for compliance with Subpart B of this Part, including all monitoring, reporting, and recordkeeping requirements herein.~~

3. *The Agency proposes amending Section 225.230 to clarify that Section 225.235, which concerns units scheduled for permanent shutdown, is part of the exception established in subsection (a)(1).*

Section 225.230 Emission Standards for EGUs at Existing Sources

a) Emission Standards.

1) Except as provided in Sections 225.230(b) and (d), 225.232 through 225.235, ~~225.234,~~ 225.239, and 225.291 through 225.299 of this Subpart B, beginning July 1, 2009, the owner or operator of a source with one or more EGUs subject to this Subpart B that commenced commercial operation on or before December 31, 2008, must comply with one of the following standards for each EGU on a rolling 12-month basis:

A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or

B) A minimum 90-percent reduction of input mercury.

4. *The Agency proposes amending Section 225.233(a)(4) to reflect the removal of the term "designated representative."*

4) When an EGU is subject to the requirements of this Section, the requirements apply to all owners or operators of the EGU~~, and the designated representative for the EGU~~.

5. *The Agency proposes amending Section 225.233(c)(2)(D). The Agency has become aware of new information that indicates some sources with particulate control devices downstream of the air preheater may inject activated carbon upstream of the air preheater. This injection point was not contemplated during the original determination of the required injection rates for units opting into the MPS and CPS. It also brings to light a need to revise the rule so as to avoid an incentive to inject at a point in the ductwork that may not be most desirable. This is because determination of the flow rate at the point of injection creates an incentive to inject where the flow rate is low (e.g., near the back end of the ductwork close to the stack), thereby potentially making the injection point location decision based on factors other than the ability to best control mercury emissions.*

Furthermore, the Agency believes that measurement of gas flow rate at the point of injection is likely less reliable in comparison to gas flow rate measurement at the stack due to there typically being a higher level of operating experience, quality control, and quality assurance of stack gas flow meters. The requirement for gas flow rate to be obtained from stack gas flow meters, which are operated under the Acid Rain Program, will also result in a standardized point of gas flow measurement rather than such measurements being taken at variable points in the gas flow configuration.

The proposed revision requires determination of the gas flow rate at the stack except in the case of units equipped with activated carbon injection prior to a hot-side electrostatic precipitator. For these units, the gas flow rate will still be determined at the inlet to the hot-side electrostatic precipitator. For this purpose, the gas flow rate would actually be measured at the stack, however, the stack gas flow rate will be adjusted for the differences in temperature in the stack and at the inlet to the hot-side electrostatic precipitator. This adjustment is required since the Agency was aware in its original determination of the required injection rates that units equipped with hot-side electrostatic precipitators would be injecting activated carbon prior to the hot-side electrostatic precipitator and it was recognized that such units would typically get lower mercury control than those

with more common configurations (e.g., cold-side electrostatic precipitators). The proposed revision also recognizes that some units with hot-side electrostatic precipitators may be equipped with secondary particulate control devices downstream of the hot-side electrostatic precipitator and will inject activated carbon downstream of the hot-side electrostatic precipitator. Such units will be treated like other units and will not be required to adjust the gas flow rate for temperature differences but will simply measure the gas flow rate at the stack.

Therefore, the Agency proposes amending this Section as follows:

D) For the purposes of subsection (c)(2)(C) of this Section, the flue gas flow rate ~~must be determined for the point of sorbent injection; provided that this flow rate may~~ shall be ~~assumed to be identical to~~ the ~~stack~~ gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles's Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine). ~~if the gas temperatures at the point of injection and the stack are normally within 100° F, or the flue gas flow rate may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.~~

6. *The Agency proposes amending Section 225.233(f)(5) for clarification purposes, in response to a request by industry.*

f) Requirements for NO_x and SO_2 Allowances.

***

5) By ~~Before~~ March 1, 2010, and continuing each year thereafter, the owner or operator of EGUs in an MPS Group must submit a report to the Agency that demonstrates compliance with the requirements of this subsection (f) for the previous calendar year, and which includes identification of any allowances that have been surrendered to the USEPA or to the Agency and any allowances that were sold, gifted, used, exchanged, or traded because they became available due to over-compliance. All allowances that are

required to be surrendered must be surrendered by August 31, unless USEPA has not yet deducted the allowances from the previous year. A final report must be submitted to the Agency by August 31 of each year, verifying that the actions described in the initial report have taken place or, if such actions have not taken place, an explanation of all changes that have occurred and the reasons for such changes. If USEPA has not deducted the allowances from the previous year by August 31, the final report will be due, and all allowances required to be surrendered must be surrendered, within 30 days after such deduction occurs.

7. *The Agency proposes amending Section 225.234(b)(2) for the same reasons set forth in errata item 5.*

2) The owner or operator of the EGU is injecting halogenated activated carbon in an optimum manner for control of mercury emissions, which must include injection of Alstom, Norit, Sorbent Technologies, Calgon Carbon's FLUEPAC MC Plus, or other halogenated activated carbon that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions, at least at the following rates set forth in subsections (b)(2)(A) through (b)(2)(D) of this Section, unless other provisions for injection of halogenated activated carbon are established in a federally enforceable operating permit issued for the EGU, using an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork. For the purposes of this subsection (b)(2), the flue gas flow rate shall be the flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles's Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine). ~~must be determined for the point of sorbent injection (provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100º F) or may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.~~

8. *The Agency proposes amending Section 225.238(b)(2) for the same reasons set forth in errata item 5.*

> 2) For an EGU for which injection of a sorbent or other mercury control technique is required pursuant to subsection (b)(1) of this Section, the owner or operator of the EGU is injecting sorbent or other mercury control technique in an optimum manner for control of mercury emissions, which must include injection of Alstom, Norit, Sorbent Technologies, Calgon Carbon's FLUEPAC MC Plus, or other sorbent or other mercury control technique that the owner or operator of the EGU demonstrates to have similar or better effectiveness for control of mercury emissions, at least at the rate set forth in the appropriate of subsections (b)(2)(A) through (b)(2)(C) of this Section, unless other provisions for injection of sorbent or other mercury control technique are established in a federally enforceable operating permit issued for the EGU, with an injection system designed for effective absorption of mercury. For the purposes of this subsection (b)(2), the flue gas flow rate shall be the gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles's Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine). ~~must be determined for the point of sorbent injection or other mercury control technique (provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100º F) , or the flow rate may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.~~

9. *In response to industry comments, the Agency proposes amending Section 225.239(g) to provide that an unsuccessful stack test only indicates noncompliance dating back to the beginning of the quarter, the last day of certified CEMS data (or certified data from an excepted monitoring system) demonstrating compliance, or to the date on which a significant change was made. The language is now consistent with the Agency's statements that a successful stack test determines compliance for an entire quarter, and it also acknowledges that a significant change could be the event that triggers noncompliance, so noncompliance should not be assumed to predate such a change.*

g) Compliance Determination

1) Each successful quarterly emissions test shall determine compliance with this Subpart for that quarter, except for days in the quarter before and after a failed test and until a successful re-test as described in subsection(g)(2) below, where the quarterly periods consist of the months of January through March, April through June, July through September, and October through December;

2) If emissions testing conducted pursuant to this Section fails to demonstrate compliance, the owner or operator of the EGU will be deemed to have been out of compliance with this Subpart beginning on the first day ~~after the most recent emissions test that demonstrated compliance or~~ of the current quarter, the last day of certified CEMS data (or certified data from an excepted monitoring system) demonstrating compliance, or the date on which a significant change was made pursuant to subsection (h)(2) of this Section if such a change was made, whichever is later; ~~on a rolling 12-month basis, and~~ the EGU will remain out of compliance until a subsequent emissions test successfully demonstrates compliance with the limits of this Section.

10. The Agency proposes amending Section 225.239(i)(1) to reflect the removal of the term "designated representative."

1) The owner or operator of an EGU ~~and its designated representative~~ must comply with all applicable recordkeeping and reporting requirements in this Section.

11. The Agency proposes amending Section 225.240(b)(1) in response to a request by Midwest Generation that the monitor date match the control installation date.

b) Emissions Monitoring Deadlines. The owner or operator must meet the emissions monitoring system certification and other emissions monitoring requirements of subsections (a)(1) and (a)(2) of this Section on or before the applicable of the following dates. The owner or operator must record, report, and quality-assure the data from the emissions monitoring systems required under subsection (a)(1) of this Section on and after the applicable of the following dates:

1) For the owner or operator of an EGU that commences commercial operation before July 1, 2008, by July 1, 2009, except that an EGU in an MPS Group for which an SO_2 scrubber or fabric filter is being installed to be in operation by December 31, 2009, as

described in Section 225.233(c)(1)(A), shall have a date of January 1, 2010.

12. The Agency proposes amending Section 225.240(d)(2) because EGUs are not actually required to account for all emissions (as a result of the removal of data substitution requirements and the addition of the 75% monitor availability requirement, for example).

d) Prohibitions.

1) No owner or operator of an EGU may use any alternative emissions monitoring system, alternative reference method for measuring emissions, or other alternative to the emissions monitoring and measurement requirements of this Section and Sections 225.250 through 225.290, unless such alternative is submitted to the Agency in writing and approved in writing by the Manager of the Bureau of Air's Compliance Section, or his or her designee.

2) No owner or operator of an EGU may operate its EGU so as to discharge, or allow to be discharged, mercury emissions to the atmosphere without accounting for ~~all~~ such emissions in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290, and Sections 1.14 through 1.18 of Appendix B to this Part, unless demonstrating compliance pursuant to Section 225.239, as applicable.

13. The Agency proposes amending Section 225.240(d)(4)(B) to reflect the removal of the term "designated representative."

4) No owner or operator of an EGU may retire or permanently discontinue use of the CEMS (or excepted monitoring system) or any component thereof, or any other approved monitoring system pursuant to this Subpart B, except under any one of the following circumstances:

A) The owner or operator is monitoring emissions from the EGU with another certified monitoring system that has been approved, in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart B, and Sections 1.14 through 1.18 of Appendix B to this Part, by the Agency for use at that EGU and that provides emission data for the same pollutant

or parameter as the retired or discontinued monitoring system; or

B) The owner or operator ~~or designated representative~~ submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with Section 225.250(a)(3)(A).

14. In response to comments by industry and to ensure the regulation matches the Agency's original intent, the Agency proposes amending Section 225.260(b) to clarify that all units using CEMS are subject to the 75% uptime requirement.

b) Monitor data availability for all EGUs using a CEMS (or an excepted monitoring system) shall be greater than or equal to 75 percent; that is, quality assured data must be recorded by a certified primary monitor, a certified redundant or non-redundant backup monitor, or reference method for that unit at least 75 percent of the time the unit is in operation. Monitor data availability must be determined on a calendar quarter basis in accordance with Section 1.8 of Appendix B following initial certification of the required CO_2, O_2, flow monitor, or mercury concentration or moisture monitoring system(s) at a particular unit or stack location. Compliance with the percent reduction standard in Section 225.230(a)(1)(B), 225.233(d)(1)(B) or (d)(2)(B), 225.237(a)(1)(B), or 225.294(c)(2), or the emissions concentration standard in Section 225.230(a)(1)(A), 225.233(d)(1)(A) or (d)(2)(A), 225.237(a)(1)(A), or 225.294(c)(1), can only be demonstrated if the monitor data availability is equal to or greater than 75 percent.~~; that is, quality assured data must be recorded by a certified primary monitor, a certified redundant or non-redundant backup monitor, or reference method for that unit at least 75 percent of the time the unit is in operation.~~

15. In response to comments from Ameren, the Agency proposes amending Section 225.265(a)(1) to provide greater flexibility regarding the location at which sources are required to collect a grab sample.

1) Perform sampling of the coal combusted in the EGU for mercury content. The owner or operator of such EGU must collect a minimum of one 2-lb. grab sample from the belt feeders anywhere between the crusher house or breaker building and the boiler or, in cases where a crusher house or breaker building are not present, at a reasonable point close to the boiler of a subject EGU, according to the schedule below. The sample must be taken in a manner that provides a representative mercury content for the coal burned on that day. If multiple samples are tested, the owner or operator

must average those tests to arrive at the final mercury content for that time period. The owner or operator of the EGU must perform coal sampling as follows:

16. The Agency proposes amending Section 225.290(a)(1) to reflect the removal of the term "designated representative."

Section 225.290 Recordkeeping and Reporting

a) General Provisions.

1) The owner or operator of an EGU ~~and its designated representative~~ must comply with all applicable recordkeeping and reporting requirements in this Section and with all applicable recordkeeping and reporting requirements of Section 1.18 to Appendix B to this Part.

17. The Agency proposes amending Section 225.290(b)(3)(F) in response to stakeholder comments that certain DAHS systems have the ability to record the amount of coal combusted.

F) The average monthly and quarterly mercury control efficiency. This is determined by dividing the mercury mass emissions recorded during QAMO hours, calculated each month and quarter, by the total amount of mercury in the coal combusted <u>weighted</u> ~~modified~~ by the monitor availability (total mercury content multiplied by the percent monitor availability, or QAMO hours divided by total hours) for each month and quarter. <u>If the DAHS for the EGU has the ability to record the amount of coal combusted during QAMO hours, the average monthly and quarterly control efficiency shall be reported without the calculation above.</u> If the EGU is complying by means of Sections 225.230(a)(1)(A), 225.233(d)(1)(A), 225.233(d)(2)(A), or Section 225.294(c)(1), reporting of the data in this subparagraph F is not required.

18. The Agency proposes amending Section 225.292(e) to reflect the removal of the term "designated representative."

e) If an EGU is subject to the requirements of this Section, then the requirements apply to all owners and operators of the EGU~~, and to the designated representative for the EGU.~~

19. The Agency proposes amending Section 225.294(g)(4) for the same reasons set forth in errata item 5.

4) For purposes of subsection (g)(3) of this Section, the flue gas flow rate ~~must be determined for the point sorbent injection; provided that this flow rate may~~ shall be ~~assumed to be identical to~~ the gas ~~stack~~ flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles's Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine).~~if the gas temperatures at the point of injection and the stack are normally within 100º F, or the flue gas flow rate may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.~~

20. The Agency proposes amending Section 225.298(a) consistent with the terms and conditions agreed to by the affected sources in their multi-pollutant reduction agreements with the Agency regarding the treatment of NOx and SO2 allowances. This revision is necessary due to the uncertainty surrounding the future of the federal CAIR as adopted by Illinois in Sections 225.310, 225.410, and 225.510. The CAIR was reinstated on December 23, 2008, and remanded back to USEPA with instructions to fix the rule, however, no deadline was imposed upon USEPA under which to accomplish this task. It is envisioned that either a new or modified version of CAIR will be forthcoming from USEPA.

Further changes throughout Section 225.298 reflect the removal of the term "designated representative." Finally, as with the MPS, the Agency is changing "Before" to "By" for clarification purposes. This change is in response to a request by industry.

Section 225.298 Combined Pollutant Standard: Requirements for NO_x and SO_2 Allowances

a) The following requirements apply to the owner and~~, the~~ operator~~, and the designated representative~~ with respect to SO_2 and NO_x allowances, which mean, for the purposes of this Section 225.298, allowances necessary for

compliance with Section 225.310, 225.410, or 225.510, 40 CFR 72, or Subparts AA and AAAA of 40 CFR 96, or any future federal NO_x or SO_2 emissions trading programs that modify or replace these programs:

1) The owner~~,~~ or operator~~, and designated representative~~ of specified EGUs in a CPS group is permitted to sell, trade, or transfer SO_2 and NO_x emissions allowances of any vintage owned, allocated to, or earned by the specified EGUs (the "CPS allowances") to its affiliated Homer City, Pennsylvania, generating station for as long as the Homer City Station needs the CPS allowances for compliance.

2) When and if the Homer City Station no longer requires all of the CPS allowances, the owner~~,~~ or operator~~, or designated representative~~ of specified EGUs in a CPS group may sell any and all remaining CPS allowances, without restriction, to any person or entity located anywhere, except that the owner or operator may not directly sell, trade, or transfer CPS allowances to a unit located in Ohio, Indiana, Illinois, Wisconsin, Michigan, Kentucky, Missouri, Iowa, Minnesota, or Texas.

3) In no event shall this subsection (a) require or be interpreted to require any restriction whatsoever on the sale, trade, or exchange of the CPS allowances by persons or entities who have acquired the CPS allowances from the owner~~,~~ or operator~~, or designated representative~~ of specified EGUs in a CPS group.

b) The owner~~,~~ or operator~~, and designated representative~~ of EGUs in a specified CPS group is prohibited from purchasing or using SO_2 and NO_x allowances for the purposes of meeting the SO_2 and NO_x emissions standards set forth in Section 225.295.

c) By ~~Before~~ March 1, 2010, and continuing each year thereafter, the owner or operator ~~designated representative~~ of the EGUs in a CPS group must submit a report to the Agency that demonstrates compliance with the requirements of this Section for the previous calendar year and ozone season control period (May 1 through September 30), and includes identification of any NO_x or SO_2 allowances that have been used for compliance with any NO_x or SO_2 trading programs, and any NO_x or SO_2 allowances that were sold, gifted, used, exchanged, or traded. A final report must be submitted to the Agency by August 31 of each year, providing either verification that the actions described in the initial report have taken place, or, if such actions have not taken place, an explanation of the changes that have occurred and the reasons for such changes.

21. The Agency proposes amending Appendix B, Section 1.2(f) to reflect the removal of the term "designated representative."

f) Minimum recording and recordkeeping requirements. The owner or operator must record and ~~the designated representative must~~ report the hourly, daily, quarterly, and annual information collected under the requirements as specified in subpart G of 40 CFR 75, incorporated by reference in Section 225.140, and Section 1.11 through 1.13 of this Appendix.

22. The Agency proposes amending Appendix B, Section 1.4(a)(1) to reflect the removal of the term "designated representative."

Section 1.4 Initial certification and recertification procedures

a) Initial certification approval process. The owner or operator must ensure that each continuous mercury emission monitoring system or auxiliary monitoring system required by this Appendix meets the initial certification requirements of this Section. In addition, whenever the owner or operator installs a continuous mercury emission monitoring system in order to meet the requirements of Sections 1.3 of this Appendix and 40 CFR Sections 75.11 through 75.14 and 75.16 through 75.18, incorporated by reference in Section 225.140, where no continuous emission monitoring system was previously installed, initial certification is required.

1) Notification of initial certification test dates. The owner or operator ~~or designated representative~~ must submit a written notice of the dates of initial certification testing at the unit as specified in 40 CFR 75.61(a)(1), incorporated by reference in Section 225.140.

23. The Agency proposes amending Appendix B, Section 1.4(a)(4)(B) to reflect the removal of the term "designated representative."

B) Incomplete application notice. A certification (or recertification) application will be considered complete when all of the applicable information required to be submitted in 40 CFR 75.63, incorporated by reference in Section 225.140, has been received by the Agency. If the certification (or recertification) application is not complete, then the Agency will issue a notice of incompleteness that provides a reasonable timeframe for the <u>owner or operator</u> ~~designated representative~~ to submit the additional information required to complete the certification (or

recertification) application. If the owner or operator ~~designated representative~~ has not complied with the notice of incompleteness by a specified due date, then the Agency may issue a notice of disapproval specified under paragraph (a)(4)(C) of this Section. The 120-day review period will not begin prior to receipt of a complete application.

24. The Agency proposes amending Appendix B, Section 1.4(a)(5)(B) to reflect the removal of the term "designated representative."

B) The owner or operator ~~designated representative~~ must submit a notification of certification retest dates as specified in Section 225.250(a)(3)(A) and a new certification application according to the procedures in Section 225.250(a)(3)(B); and

25. The Agency proposes amending Appendix B, Section 1.4(b)(2) to reflect the removal of the term "designated representative."

2) Notification of recertification test dates. The owner~~,~~ or operator~~, or designated representative~~ must submit notice of testing dates for recertification under this paragraph as specified in 40 CFR 75.61(a)(1)(ii), incorporated by reference in Section 225.140, unless all of the tests in paragraph (c) of this Section are required for recertification, in which case the owner or operator must provide notice in accordance with the notice provisions for initial certification testing in 40 CFR 75.61(a)(1)(i), incorporated by reference in Section 225.140.

26. The Agency proposes correcting several errors made in the Second Errata. In item 27, several changes were made to Appendix B, Section 1.4(b)(3)(G)(v). A number of punctuation errors occurred during the process. First, the second sentence was broken up into two new sentences. This involved adding a period, which was mistakenly omitted from the Second Errata. The two sentences should read:

The results of such gas injections and trial runs must not affect the status of previously-recorded conditionally valid data or result in termination of the recertification test period, provided that they meet the following specifications and conditions.~~:~~ ~~f~~For diluent gas injections…

Next, in the Second Errata, the fifth sentence in the lower half of the paragraph correctly shows the strikeout of a "+-" sign before "15 ppm" but inadvertently leaves out a second "+-" before 1.5% which was also intended to be stricken. The passage should read:

> …± 20% of the average reference method value (for mercury monitors), or differ by no more than 1.0% CO_2 or O2~~,+- 15 ppm~~, ~~or +-~~ 1.5% H_2O…

Third, the same sentence was broken up to form a new sixth sentence. To reflect this, a semicolon was stricken and a period added. In the Second Errata, however, the period was stricken rather than underlined. In addition, the new, capitalized "No" was not underlined as being an addition. The passage should read:

> …the average reference method value, as applicable.~~;~~ No ~~no~~ adjustments to the calibration…

Accordingly, the entire paragraph (v) should read:

> (v) Trial gas injections and trial RATA runs are permissible during the recertification test period, prior to commencing a linearity check or RATA, for the purpose of optimizing the performance of the CEMS. The results of such gas injections and trial runs must not affect the status of previously-recorded conditionally valid data or result in termination of the recertification test period, provided that they meet the following specifications and conditions.~~:~~ ~~f~~For diluent gas injections, the stable, ending monitor response is within ±5 percent ~~or within 5 ppm~~ of the tag value of the reference gas~~;~~ ~~for~~ 0.5% CO_2 or O_2. For Hg vapor injections, the stable, ending monitor response is within ± 10 percent of the value of the reference gas or 0.8 µg/scm. For RATA trial runs, the average reference method reading and the average CEMS reading for the run differ by no more than ~~+-~~ ±10% of the average reference method value (for flow, diluent gas, and moisture monitors), or ± 20% of the average reference method value (for mercury monitors), or differ by no more than 1.0% CO_2 or O2~~,+- 15 ppm~~, ~~or +-~~ 1.5% H_2O, or ~~+- 0.02 lb/mmBtu~~ 1.0µg/scm from the average reference method value, as applicable.~~;~~ No ~~no~~ adjustments to the calibration of the CEMS ~~are~~shall be made following

the trial injection(s) or run(s), other than the adjustments permitted under Section 2.1.3 of Exhibit B to this Appendix and the CEMS is not repaired, re-linearized or reprogrammed (e.g., changing flow monitor polynomial coefficients, linearity constants, or K-factors) after the trial injection(s) or run(s).

27. The Agency proposes amending Appendix B, Section 1.4(b)(4) to reflect the removal of the term "designated representative."

4) Recertification application. The owner or operator ~~designated representative~~ must apply for recertification of each continuous emission monitoring system. The owner or operator must submit the recertification application in accordance with 40 CFR 75.60, incorporated by reference in Section 225.140, and each complete recertification application must include the information specified in 40 CFR 75.63, incorporated by reference in Section 225.140.

28. The Agency proposes amending Appendix B, Section 1.4(b)(5) to reflect the removal of the term "designated representative." An extraneous space was also removed between the words "Agency's" and "notice" in line ten.

5) Approval or disapproval of request for recertification. The procedures for provisional certification in paragraph (a)(3) of this Section apply to recertification applications. The Agency will issue a notice of approval, disapproval, or incompleteness according to the procedures in paragraph (a)(4) of this Section. Data from the monitoring system remain invalid until all required recertification tests have been passed or until a subsequent probationary calibration error test is passed, beginning a new recertification test period. The owner or operator must repeat all recertification tests or other requirements, as indicated in the Agency's -notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval. The owner or operator ~~designated representative~~ must submit a notification of the recertification retest dates, as specified in 40 CFR 75.61(a)(1)(ii), incorporated by reference in Section 225.140, and must submit a new recertification application according to the procedures in paragraph (b)(4) of this Section.

29. The Agency proposes amending Appendix B, Section 1.4(f) to reflect the removal of the term "designated representative."

f) Certification/recertification procedures for alternative monitoring systems. The ~~designated representative representing the~~ owner or operator of each alternative monitoring system approved by the Agency as equivalent to or better than a continuous emission monitoring system according to the criteria in subpart E of 40 CFR 75, incorporated by reference in Section 225.140, must apply for certification to the Agency prior to use of the system under Part 225, Subpart B, and must apply for recertification to the Agency following a replacement, modification, or change according to the procedures in paragraph (c) of this Section. The owner or operator of an alternative monitoring system must comply with the notification and application requirements for certification or recertification according to the procedures specified in paragraphs (a) and (b) of this Section.

30. The Agency proposes correcting an error made in the Second Errata. In item 40, a change to Appendix B, Section 1.6(c) struck appendix "A-4" of 40 CFR 60. Thus the preceding descriptive noun "appendices" needed to be changed to "appendix," as only a reference to one appendix remained. However, the Second Errata inadvertently showed the term "appendix" being stricken and "appendices" being added. Subparagraph (c) should read:

c) Instrumental EPA Reference Method 3A in appendix ~~appendices~~ A-2 ~~and A-4~~ of 40 CFR 60, incorporated by reference in Section 225.140, must be conducted using calibration gases as defined in Section 5 of Exhibit A to this Appendix. Otherwise, performance tests must be conducted and data reduced in accordance with the test methods and procedures of this part unless the Agency:

31. The Agency proposes correcting several errors made in the Second Errata. In items 47 through 50, the Agency cited Appendix B, Section 1.10(a) when it should have cited 1.10(c). The actual changes to the rule were correct; the citations in the descriptions simply were not. These should read:

47. The Agency proposes amending Appendix B Section 1.10(c)(1)(B) to include moisture as a monitored parameter. Prior omission of moisture as a parameter was an oversight.

48. The Agency proposes deleting Appendix B Section 1.10(c)(1)(E)(vii). The references to default high range value only apply to SO_2 and NO_x, and are inappropriate for this section. The deletion was made in response to USEPA comments. A period was added to 1.10(c)(1)(E)(vi) to correct grammar.

49. The Agency proposes amending Appendix B Section 1.10(c)(2)(B) to correct an erroneous reference.

50. The Agency proposes amending Appendix B Section 1.10(c)(2)(D) to correct an erroneous reference.

32. The Agency proposes amending Appendix B, Section 1.11(a) to require five years for record retention so as to be consistent with Section 225.290(a)(6).

Section 1.11 General recordkeeping provisions

The owner or operator must meet all of the applicable recordkeeping requirements of Section 225.290 and of this Section.

a) Recordkeeping requirements for affected sources. The owner or operator of any affected source subject to the requirements of this Appendix must maintain for each affected unit a file of all measurements, data, reports, and other information required by Part 225, Subpart B at the source in a form suitable for inspection for at least five (5) ~~three (3)~~ years from the date of each record. The file must contain the following information:

33. The Agency proposes correcting an error made in the Second Errata. In item 52, Appendix B, Section 1.11(b)(3) and (b)(4) were combined into one item. To effectuate this, and to make the list uniform, the period at the end of the old (b)(4) was changed to a semicolon. However, this was not reflected as a change in the Second Errata. The corrected item 52 should read:

3) Hourly gross unit load (rounded to nearest MWge), or

~~4)~~ ~~S~~steam load in 1000 lbs/hr at stated temperatures and pressures, rounded to the nearest 1000 lbs/hr;~~.~~

34. The Agency proposes correcting an error made in the Second Errata. In item 53, Appendix B, Section 1.11(e)(1)(c), the second sentence was removed. This required the period at the end of the first sentence to be changed into a semicolon to provide continuity to the list. This was done, but not reflected as an amendment. Accordingly, Section 1.11(e)(1)(c) should read:

C) Hourly mercury concentration (µg/scm, rounded to the nearest tenth);~~. For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;~~

35. The Agency proposes amending Appendix B, Section 1.14(a) to reflect the removal of the term "designated representative."

Section 1.14 General provisions

a) Applicability. The owner or operator of a unit must comply with the requirements of this Appendix to the extent that compliance is required by Part 225. For purposes of this Appendix, the term "affected unit" means any coal-fired unit (as defined in 40 CFR 72.2, incorporated by reference) that is subject to Part 225. The term "non-affected unit" means any unit that is not subject to Part 225, the term "permitting authority" means the Agency~~, and the term "designated representative" means the responsible party under Part 225.~~

36. The Agency proposes amending Appendix B, Section 1.14(c)(2) because EGUs are not actually required to account for all emissions (as a result of the removal of data substitution requirements and the addition of the 75% monitor availability requirement, for example).

c) Prohibitions.

1) No owner or operator of an affected unit or a non-affected unit under Section 1.16(b)(2)(B) of this Appendix will use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emission monitoring system without having obtained prior written approval in accordance with paragraph (f) of this Section.

2) No owner or operator of an affected unit or a non-affected unit under Section 1.16(b)(2)(B) of this Appendix will operate the unit so as to discharge, or allow to be discharged emissions of mercury to the atmosphere without accounting for ~~all~~ such emissions in accordance with the applicable provisions of this Appendix.

37. The Agency proposes amending Appendix B, Section 1.14(c)(4)(C) to reflect the removal of the term "designated representative."

4) No owner or operator of an affected unit or a non-affected unit under Section 1.16(b)(2)(B) will retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this Appendix, except under any one of the following circumstances:

***

C) The owner or operator ~~designated representative~~ submits notification of the date of certification testing of a replacement monitoring system in accordance with Part 225.240(d).

38. The Agency proposes amending Appendix B, subsections 1.14(f)(1) and (f)(3) to reflect the removal of the term "designated representative."

f) Petitions.

1) The owner or operator ~~designated representative~~ of an affected unit that is also subject to the Acid Rain Program may submit a petition to the Agency requesting an alternative to any requirement of Sections 1.14 through 1.18 of this Appendix. Such a petition must meet the requirements of 40 CFR 75.66, incorporated by reference in Section 225.140, and any additional requirements established by Part 225, Subpart B. Use of an alternative to any requirement of Sections 1.14 through 1.18 of this Appendix is in accordance with Sections 1.14 through 1.18 of this Appendix and with Part 225, Subpart B only to the extent that the petition is approved in writing by the Agency.

2) Notwithstanding paragraph (f)(1) of this Section, petitions requesting an alternative to a requirement concerning any additional CEMS required solely to meet the common stack provisions of Section 1.16 of this Appendix must be submitted to the Agency and will be governed by paragraph (f)(3) of this Section. Such a petition must meet the requirements of 40 CFR 75.66, incorporated by reference in Section 225.140, and any additional requirements established by Part 225, Subpart B.

3) The owner or operator ~~designated representative~~ of an affected unit that is not subject to the Acid Rain Program may submit a petition to the Agency requesting an alternative to any requirement of Sections 1.14 through 1.18 of this Appendix. Such a petition must meet the requirements of 40 CFR 75.66, incorporated by reference

in Section 225.140, and any additional requirements established by Part 225, Subpart B. Use of an alternative to any requirement of Sections 1.14 through 1.18 of this Appendix is in accordance with Sections 1.14 through 1.18 of this Appendix only to the extent that it is approved in writing by the Agency.

39. The Agency proposes amending Appendix B, subsections 1.16(b)(2)(A) and (C) to reflect the removal of the term "designated representative."

b) Unit utilizing common stack with nonaffected unit(s). When one or more affected units utilizes a common stack with one or more nonaffected units, the owner or operator must either:

1) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the mercury emission testing described in Section 1.15(a) or Section 1.15(b) of this Appendix in the duct to the common stack from each affected unit; or

2) Install, certify, operate, and maintain the monitoring systems described in Section 1.15(a) of this Appendix in the common stack; and

A) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the mercury emission testing described in Section 1.15(a) or Section 1.15(b) of this Appendix in the duct to the common stack from each non-affected unit. The owner or operator ~~designated representative~~ must submit a petition to the Agency to allow a method of calculating and reporting the mercury mass emissions from the affected units as the difference between mercury mass emissions measured in the common stack and mercury mass emissions measured in the ducts of the non-affected units, not to be reported as an hourly value less than zero. The Agency may approve such a method whenever the owner or operator ~~designated representative~~ demonstrates, to the satisfaction of the Agency, that the method ensures that the mercury mass emissions from the affected units are not underestimated; or

B) Count the combined emissions measured at the common stack as the mercury mass emissions for the affected units, for recordkeeping and compliance purposes, in accordance with paragraph (a) of this Section; or

C) Submit a petition to the Agency to allow use of a method for apportioning mercury mass emissions measured in the common stack to each of the units using the common stack and for reporting the mercury mass emissions. The Agency may approve such a method whenever the owner or operator ~~designated representative~~ demonstrates, to the satisfaction of the Agency, that the method ensures that the mercury mass emissions from the affected units are not underestimated.

40. The Agency proposes amending Appendix B, Section 1.18(a) to require five years for record retention so as to be consistent with Section 225.290(a)(6).

Section 1.18 Recordkeeping and reporting

a) General recordkeeping provisions. The owner or operator of any affected unit must maintain for each affected unit and each non-affected unit under Section 1.16(b)(2)(B) of this Appendix a file of all measurements, data, reports, and other information required by this part at the source in a form suitable for inspection for at least 5 ~~3~~ years from the date of each record. Except for the certification data required in Section 1.11(a)(4) of this Appendix and the initial submission of the monitoring plan required in Section 1.11(a)(5) of this Appendix, the data must be collected beginning with the earlier of the date of provisional certification or the compliance deadline in Section 1.14(b) of this Appendix. The certification data required in Section 1.11(a)(4) of this Appendix must be collected beginning with the date of the first certification test performed. The file must contain the following information:

41. The Agency proposes amending Appendix B, subsections 1.18(d)(1), (2), (3), (4) and (5) and subsection (e) to reflect the removal of the term "designated representative."

d) General reporting provisions.

1) The owner or operator of ~~designated representative for~~ an affected unit must comply with all reporting requirements in this Section and with any additional requirements set forth in 35 Ill. Adm. Code Part 225.

2) The owner or operator of ~~designated representative for~~ an affected unit must submit the following for each affected unit or group of units monitored at a common stack and each non-affected unit

under Section 1.16(b)(2)(B) of this Appendix:

A) Monitoring plans in accordance with paragraph (e) of this Section; and

B) Quarterly reports in accordance with paragraph (f) of this Section.

3) Other petitions and communications. The owner or operator of ~~designated representative for~~ an affected unit must submit petitions, correspondence, application forms, and petition-related test results in accordance with the provisions in Section 1.14(f) of this Appendix.

4) Quality assurance RATA reports. If requested by the Agency, the owner or operator ~~designated representative~~ of an affected unit must submit the quality assurance RATA report for each affected unit or group of units monitored at a common stack and each non-affected unit under Section 1.16(b)(2)(B) of this Appendix by the later of 45 days after completing a quality assurance RATA according to Section 2.3 of Exhibit B to this Appendix or 15 days of receiving the request. The owner or operator ~~designated representative~~ must report the hardcopy information required by Section 1.13(a)(9) of this Appendix to the Agency.

5) Notifications. The owner or operator of ~~designated representative for~~ an affected unit must submit written notice to the Agency according to the provisions in 40 CFR 75.61, incorporated by reference in Section 225.140, for each affected unit or group of units monitored at a common stack and each non-affected unit under Section 1.16(b)(2)(B) of this Appendix.

e) Monitoring plan reporting.

The owner or operator ~~designated representative~~ of an affected unit must submit all of the hardcopy information required under Section 1.10 of this Appendix, for each affected unit or group of units monitored at a common stack and each non-affected unit under Section 1.16(b)(2)(B) of this Appendix, to the Agency prior to initial certification. Thereafter, the owner or operator ~~designated representative~~ must submit hardcopy information only if that portion of the monitoring plan is revised. The owner or operator ~~designated representative~~ must submit the required hardcopy information as follows: no later than 21 days prior to the commencement of initial certification testing; with any certification or recertification application, if a hardcopy monitoring

plan change is associated with the recertification event; and within 30 days of any other event with which a hardcopy monitoring plan change is associated, pursuant to Section 1.10(b) of this Appendix.

42. In response to comments received from USEPA, the Agency proposes amending Exhibit A, Section 2.1.3.4 to add an option to certify additional calibration points rather than ordering new calibration materials.

2.1.3.4 Adjustment of Span and Range

For each affected unit or common stack, the owner or operator must make a periodic evaluation of the MPC, MEC, span, and range values for each mercury monitor (at a minimum, an annual evaluation is required) and must make any necessary span and range adjustments, with corresponding monitoring plan updates. Span and range adjustments may be required, for example, as a result of changes in the fuel supply, changes in the manner of operation of the unit, or installation or removal of emission controls. In implementing the provisions in paragraphs (a) and (b) of this Section, data recorded during short-term, non-representative process operating conditions (e.g., a trial burn of a different type of fuel) must be excluded from consideration. The owner or operator must keep the results of the most recent span and range evaluation on-site, in a format suitable for inspection. Make each required span or range adjustment no later than 45 days after the end of the quarter in which the need to adjust the span or range is identified, except that up to 90 days after the end of that quarter may be taken to implement a span adjustment if the calibration gas concentrations currently being used for calibration error tests, system integrity checks, and linearity checks are unsuitable for use with the new span value and new calibration materials must be ordered or additional Hg generator calibration points must be certified.

43. The Agency proposes amending the title of Exhibit A, Section 3.2 to include system integrity checks. Language was also added to this Section to change linearity error to measurement error and add language to include system integrity checks in the definition for measurement error. In addition, a minor error in the capitalization of the word "low" was corrected. The changes were made in response to USEPA comments.

3.2 Linearity and System Integrity Checks

For CO_2 or O_2 monitors (including O_2 monitors used to measure CO_2 emissions or percent moisture):

(a) The error in linearity for each calibration gas concentration (low-, mid-, and high-levels) must not exceed or deviate from the reference value by more than 5.0 percent as calculated using Equation A-4 of this Exhibit; or

(b) The absolute value of the difference between the average of the monitor

response values and the average of the reference values, R-A in Equation A-4 of this Exhibit, must be less than or equal to 0.5 percent CO_2 or O_2, whichever is less restrictive.

(c) For the linearity check and the 3-level system integrity check of a mercury monitor, which are required, respectively, under Section 1.4(c)(1)(B) and (c)(1)(E) of this Appendix, the measurement error must not exceed 10.0 percent of the reference value at any of the three gas levels. To calculate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., $|R-A|$ in Equation A-4 of this Exhibit, does not exceed 0.8 µg/m^3. The principal and alternative performance specifications in this Section also apply to the single-level system integrity check described in Section 2.6 of Exhibit B to this Appendix.

$$ME = \frac{|R-A|}{R} \times 100 \qquad \text{(Equation A-4)}$$

where,

~~L~~ME = Percentage ~~Linearity~~measurement error, for a linearity check or system integrity check, based upon the reference value.

R = Reference value of ~~L~~low-, mid-, or high-level calibration gas introduced into the monitoring system.

A = Average of the monitoring system responses.

44. The Agency proposes amending Exhibit A, Section 4 to eliminate references to electronic submission of data, and to require hardcopy recordkeeping. In addition, the Agency removed references to the bias adjustment factor.

4. Data Acquisition and Handling Systems

Automated data acquisition and handling systems must read and record the full range of pollutant concentrations and volumetric flow from zero through span and provide a continuous, permanent record of all measurements and required information as ~~an ASCII flat~~a computer data file capable of ~~transmission both by direct computer-to-computer electronic transfer via modem and EPA-provided software and by an IBM-compatible personal computer diskette~~being reproduced in a readable hard copy format. These systems also must have the capability of interpreting and converting the individual output signals from a flow monitor, a CO_2 monitor, an O_2 monitor, a moisture monitoring system, a mercury concentration monitoring system, and a

sorbent trap monitoring system, to produce a continuous readout of pollutant emission rates or pollutant mass emissions (as applicable) in the appropriate units (e.g., lb/hr, lb/MMBtu, ounces/hr, tons/hr). These systems also must have the capability of interpreting and converting the individual output signals from a flow monitor to produce a continuous readout of pollutant mass emission rates in the units of the standard. Where CO_2 emissions are measured with a continuous emission monitoring system, the data acquisition and handling system must also produce a readout of CO_2 mass emissions in tons.

Data acquisition and handling systems must also compute and record monitor calibration error; ~~any bias adjustments to mercury pollutant concentration data,~~ flow rate data, or mercury emission rate data.

45. *In response to comments received from USEPA, the Agency proposes amending Exhibit A, Sections 5.2.1 – 5.2.4 to include mercury monitors in span requirements for various concentrations.*

5.2.1 Zero-level Concentration

0.0 to 20.0 percent of span, including span for high-scale or both low- and high-scale for Hg, CO_2 and O_2 monitors, as appropriate.

5.2.2 Low-level Concentration

20.0 to 30.0 percent of span, including span for high-scale or both low- and high-scale for Hg, CO_2 and O_2 monitors, as appropriate.

5.2.3 Mid-level Concentration

50.0 to 60.0 percent of span, including span for high-scale or both low- and high-scale for Hg, CO_2 and O_2 monitors, as appropriate.

5.2.4 High-level Concentration

80.0 to 100.0 percent of span, including span for high-scale or both low-and high-scale for Hg, CO_2 and O_2 monitors, as appropriate.

46. *The Agency proposes amending Exhibit A, Section 6.2(h) to include chlorine in mercury monitor linearity checks. Also, language was deleted because it was considered inaccurate. Both changes were in response to USEPA comments.*

(h) For mercury concentration monitors, if moisture and/or chlorine is added to the calibration gas during the required linearity checks or system integrity checks, the dilution effect of the moisture and/or chlorine addition on~~content of~~ the calibration gas concentration must be accounted for in an appropriate manner. ~~Under these circumstances, the dry basis concentration of the calibration gas must~~

~~be used to calculate the linearity error or measurement error (as applicable).~~

47. The Agency proposes amending Exhibit A, Section 6.3.1 to include chlorine in mercury monitor calibration error tests. Also, language was deleted because it was considered inaccurate. Both changes were in response to USEPA comments.

6.3.1 Gas Monitor 7-day Calibration Error Test

Measure the calibration error of each mercury concentration monitor, and each CO_2 or O_2 monitor while the unit is combusting fuel (but not necessarily generating electricity) once each day for 7 consecutive operating days according to the following procedures. For mercury monitors, you may perform this test using either elemental mercury standards or a NIST-traceable source of oxidized mercury. Also for mercury monitors, if moisture and/or chlorine is added to the calibration gas, the dilution effect of the added moisture and/or chlorine on the calibration gas concentration must be accounted for in an appropriate manner~~and the dry-basis concentration of the calibration gas must be used to calculate the calibration error~~. (In the event that unit outages occur after the commencement of the test, the 7 consecutive unit operating days need not be 7 consecutive calendar days.) Units using dual span monitors must perform the calibration error test on both high- and low-scales of the pollutant concentration monitor. The calibration error test procedures in this Section and in Section 6.3.2 of this Exhibit must also be used to perform the daily assessments and additional calibration error tests required under Sections 2.1.1 and 2.1.3 of Exhibit B to this Appendix. Do not make manual or automatic adjustments to the monitor settings until after taking measurements at both zero and high concentration levels for that day during the 7-day test. If automatic adjustments are made following both injections, conduct the calibration error test such that the magnitude of the adjustments can be determined and recorded. Record and report test results for each day using the unadjusted concentration measured in the calibration error test prior to making any manual or automatic adjustments (i.e., resetting the calibration). The calibration error tests should be approximately 24 hours apart, (unless the 7- day test is performed over non-consecutive days).

48. In response to comments received from USEPA, the Agency proposes amending Exhibit A, Section 6.5.2 to remove references to operating levels. These operating levels are used strictly for non-EGUs.

6.5.2 Flow Monitor RATAs (Special Considerations)

(a) Except as otherwise provided in paragraph (b) of this Section, perform relative accuracy test audits for the initial certification of each flow monitor at three different exhaust gas velocities (low, mid, and high), corresponding to three different load levels ~~or operating levels~~ within the range of operation, as defined in Section 6.5.2.1 of this Exhibit. For a common stack/duct, the three different exhaust gas velocities may be obtained from frequently used unit/load or

operating level combinations for the units exhausting to the common stack. Select the three exhaust gas velocities such that the audit points at adjacent load or operating levels (i.e., low and mid or mid and high), in megawatts (or in thousands of lb/hr of steam production or in ft/sec, as applicable), are separated by no less than 25.0 percent of the range of operation, as defined in Section 6.5.2.1 of this Exhibit.

(b) For flow monitors on bypass stacks/ducts and peaking units, the flow monitor relative accuracy test audits for initial certification and recertification must be single-load tests, performed at the normal load, as defined in Section 6.5.2.1(d) of this Exhibit.

(c) Flow monitor recertification RATAs must be done at three load level(s) ~~(or three operating levels)~~, unless otherwise specified in paragraph (b) of this Section or unless otherwise specified or approved by the Agency.

(d) The semiannual and annual quality assurance flow monitor RATAs required under Exhibit B to this Appendix must be done at the load level(s) ~~(or operating levels)~~ specified in Section 2.3.1.3 of Exhibit B to this Appendix.

49. In response to comments received from USEPA, the Agency proposes amending Exhibit A, Sections 6.5.2.1 and 6.5.2.2 to remove numerous references to operating levels or thermal output pertaining only to non-EGUs.

6.5.2.1 Range of Operation and Normal Load ~~(or Operating)~~ Level(s)

(a) The owner or operator must determine the upper and lower boundaries of the "range of operation" as follows for each unit (or combination of units, for common stack configurations):

~~(1) For affected units that produce electrical output (in megawatts) or thermal output (in klb/hr of steam production or mmBtu/hr), t~~The lower boundary of the range of operation of a unit must be the minimum safe, stable loads for any of the units discharging through the stack. Alternatively, for a group of frequently-operated units that serve a common stack, the sum of the minimum safe, stable loads for the individual units may be used as the lower boundary of the range of operation. The upper boundary of the range of operation of a unit must be the maximum sustainable load. The "maximum sustainable load" is the higher of either: the nameplate or rated capacity of the unit, less any physical or regulatory limitations or other deratings; or the highest sustainable load, based on at least four quarters of representative historical operating data. For common stacks, the maximum sustainable load is the sum of all of the maximum sustainable loads of the individual units discharging through the stack, unless this load is unattainable in practice, in which case use the highest sustainable combined load for the units that discharge through the stack. Based on at least four quarters of representative historical operating data. The load values for the unit(s) must be expressed either

in units of megawatts of thousands of lb/hr of steam load or mmBtu/hr of thermal output.~~;or~~

(b) The ~~operating~~ load levels for relative accuracy test audits will, except for peaking units, be defined as follows: the "low" ~~operating~~load level will be the first 30.0 percent of the range of operation; the "mid" ~~operating~~load level will be the middle portion (>30.0 percent, but <=60.0 percent) of the range of operation; and the "high" ~~operating~~load level will be the upper end (>60.0 percent) of the range of operation. For example, if the upper and lower boundaries of the range of operation are 100 and 1100 megawatts, respectively, then the low, mid, and high ~~operating~~load levels would be 100 to 400 megawatts, 400 to 700 megawatts, and 700 to 1100 megawatts, respectively.

(c) The owner or operator must identify, for each affected unit or common stack, the "normal" load level or levels (low, mid or high), based on the operating history of the unit(s). To identify the normal load level(s), the owner or operator must, at a minimum, determine the relative number of operating hours at each of the three load levels, low, mid and high over the past four representative operating quarters. The owner or operator must determine, to the nearest 0.1 percent, the percentage of the time that each load level (low, mid, high) has been used during that time period. A summary of the data used for this determination and the calculated results must be kept on-site in a format suitable for inspection. For new units or newly-affected units, the data analysis in this paragraph may be based on fewer than four quarters of data if fewer than four representative quarters of historical load data are available. Or, if no historical load data are available, the owner or operator may designate the normal load based on the expected or projected manner of operating the unit. However, in either case, once four quarters of representative data become available, the historical load analysis must be repeated.

(d) Determination of normal load. ~~(or operating level)~~

Based on the analysis of the historical load data described in paragraph (c) of this Section, the owner or operator must~~, for units that produce electrical or thermal output,~~ designate the most frequently used load level as the normal load level for the unit (or combination of units, for common stacks). The owner or operator may also designate the second most frequently used load level as an additional normal load level for the unit or stack. If the manner of operation of the unit changes significantly, such that the designated normal load(s) or the two most frequently used load levels change, the owner or operator must repeat the historical load analysis and must redesignate the normal load(s) and the two most frequently used load levels, as appropriate. A minimum of two representative quarters of historical load data are required to document that a change in the manner of unit operation has occurred. Update the electronic monitoring plan whenever the normal load level(s) and the two most frequently-used load levels are redesignated.

(e) The owner or operator must report the upper and lower boundaries of the range of operation for each unit (or combination of units, for common stacks), in units of megawatts or thousands of lb/hr or mmBtu/hr of steam production ~~or ft/sec~~ (as applicable), in the electronic monitoring plan required under Section 1.10 of this Appendix.

6.5.2.2 Multi-Load ~~(or Multi-Level)~~ Flow RATA Results

For each multi-load ~~(or multi-level)~~ flow RATA, calculate the flow monitor relative accuracy at each ~~operating~~load level. If a flow monitor relative accuracy test is failed or aborted due to a problem with the monitor on any load level of a 2-~~level~~load (or 3-~~level~~load) relative accuracy test audit, the RATA must be repeated at that load ~~(or operating)~~ level. However, the entire 2-~~level~~load (or 3-~~level~~load) relative accuracy test audit does not have to be repeated unless the flow monitor polynomial coefficients or K-factor(s) are changed, in which case a 3-~~level~~load RATA is required.

50. In response to comments received from USEPA, the Agency proposes amending Exhibit A, Section 6.5.3 to remove a reference to bias adjustment.

Calculations

Using the data from the relative accuracy test audits, calculate relative accuracy ~~and bias~~ in accordance with the procedures and equations specified in Section 7 of this Exhibit.

51. The Agency proposes amending Exhibit A, Section 6.5.5.3 by including the term "RATA", for clarification purposes. In addition, language was added and deleted to reflect the proper units for some measurements and to substitute the "±" symbol for the less preferred "+-."

6.5.5.3 Stratification Test Results and Acceptance Criteria

(a) For each diluent gas RATA, the short reference method measurement line described in Section 8.1.3 of PS No. 2 may be used in lieu of the long measurement line prescribed in Section 8.1.3 of PS No. 2 if the results of a stratification test, conducted in accordance with Section 6.5.5.1 or 6.5.5.2 of this Exhibit (as appropriate; see Section 6.5.5(b)(3) of this Exhibit), show that the concentration at each individual traverse point differs by no more than ~~+~~±10.0 percent from the arithmetic average concentration for all traverse points. The results are also acceptable if the concentration at each individual traverse point differs by no more than ~~+~~±~~5ppm or +-~~0.5 percent CO_2 (or O_2) from the arithmetic average concentration for all traverse points.

(b) For each diluent gas RATA, a single reference method measurement point,

located at least 1.0 meter from the stack wall and situated along one of the measurement lines used for the stratification test, may be used for that diluent gas if the results of a stratification test, conducted in accordance with Section 6.5.5.1 of this Exhibit, show that the concentration at each individual traverse point differs by no more than ±~~+-~~5.0 percent from the arithmetic average concentration for all traverse points. The results are also acceptable if the concentration at each individual traverse point differs by no more than ~~+-3 ppm or +-~~±0.3 percent CO_2 (or O_2) from the arithmetic average concentration for all traverse points.

(c) The owner or operator must keep the results of all stratification tests on-site, in a format suitable for inspection, as part of the supplementary RATA records required under Section 1.13(a)(7) of this Appendix.

52. *In response to comments received from USEPA, the Agency proposes amending Exhibit A, Section 6.5.6 to refer to mercury monitoring systems more specifically than the previously more general "pollutant concentration monitor."*

6.5.6 Sampling Strategy

(a) Conduct the reference method tests so they will yield results representative of the pollutant concentration, emission rate, moisture, temperature, and flue gas flow rate from the unit and can be correlated with ~~the pollutant concentration~~mercury monitor, CO_2 (or O_2) ~~monitor~~, moisture, flow monitoring system, and mercury CEMS (or excepted monitoring system) measurements (as applicable). The minimum acceptable time for a gas monitoring system RATA run or for a moisture monitoring system RATA run is 21 minutes. For each run of a gas monitoring system RATA, all necessary pollutant concentration measurements, diluent concentration measurements, and moisture measurements (if applicable) must, to the extent practicable, be made within a 60-minute period. For flow monitor RATAs, the minimum time per run must be 5 minutes. Flow rate reference method measurements may be made either sequentially from port to port or simultaneously at two or more sample ports. The velocity measurement probe may be moved from traverse point to traverse point either manually or automatically. If, during a flow RATA, significant pulsations in the reference method readings are observed, be sure to allow enough measurement time at each traverse point to obtain an accurate average reading when a manual readout method is used (e.g., a "sight-weighted" average from a manometer). Also, allow sufficient measurement time to ensure that stable temperature readings are obtained at each traverse point, particularly at the first measurement point at each sample port, when a probe is moved sequentially from port-to-port. A minimum of one set of auxiliary measurements for stack gas molecular weight determination (i.e., diluent gas data and moisture data) is required for every clock hour of a flow RATA or for every three test runs (whichever is less restrictive). Alternatively, moisture measurements for molecular weight determination may be performed before and after a series of flow RATA runs at a particular load level (low, mid, or high), provided that the time interval between the two moisture

measurements does not exceed three hours. If this option is selected, the results of the two moisture determinations must be averaged arithmetically and applied to all RATA runs in the series. Successive flow RATA runs may be performed without waiting in-between runs. If an O_2-diluent monitor is used as a CO_2 continuous emission monitoring system, perform a CO_2 system RATA (i.e., measure CO_2, rather than O_2, with the reference method). For moisture monitoring systems, an appropriate coefficient, "K" factor or other suitable mathematical algorithm may be developed prior to the RATA, to adjust the monitoring system readings with respect to the reference method. If such a coefficient, K-factor or algorithm is developed, it must be applied to the CEMS readings during the RATA and (if the RATA is passed), to the subsequent CEMS data, by means of the automated data acquisition and handling system. The owner or operator must keep records of the current coefficient, K factor or algorithm, as specified in Section 1.13(a)(5)(F) of this Appendix. Whenever the coefficient, K factor or algorithm is changed, a RATA of the moisture monitoring system is required. For the RATA of a mercury CEMS using the Ontario Hydro Method, or for the RATA of a sorbent trap system (irrespective of the reference method used), the time per run must be long enough to collect a sufficient mass of mercury to analyze. For the RATA of a sorbent trap monitoring system, the type of sorbent material used by the traps must be the same as for daily operation of the monitoring system; however, the size of the traps used for the RATA may be smaller than the traps used for daily operation of the system. Spike the third section of each sorbent trap with elemental mercury, as described in Section 7.1.2 of Exhibit D to this Appendix. Install a new pair of sorbent traps prior to each test run. For each run, the sorbent trap data must be validated according to the quality assurance criteria in Section 8 of Exhibit D to this Appendix.

(b) To properly correlate ~~individual~~the mercury ~~CEMS data (in lb/MMBtu) and~~, volumetric flow rate, moisture, CO_2 (or O_2) monitoring system data with the reference method data, annotate the beginning and end of each reference method test run (including the exact time of day) on the individual chart recorder(s) or other permanent recording device(s).

53. *The Agency proposes amending Exhibit A, Section 6.5.8 to remove references to operating levels for reasons identical to errata item 48.*

6.5.8 Number of Reference Method Tests

Perform a minimum of nine sets of paired monitor (or monitoring system) and reference method test data for every required (i.e., certification, recertification, diagnostic, semiannual, or annual) relative accuracy test audit. For 2-~~level~~load and 3-~~level~~load relative accuracy test audits of flow monitors, perform a minimum of nine sets at each of the ~~operating~~load levels.

54. *In response to comments received from USEPA, the Agency proposes amending Exhibit A, Section 6.5.9 to allow appropriate reference method testing and to*

correct improper citation.

6.5.9 Reference Methods

The following methods are from appendix A to 40 CFR 60, incorporated by reference in Section 225.140, or have been published by ASTM, and are the reference methods for performing relative accuracy test audits under this part: Method 1 or 1A in appendix A-1 to 40 CFR 60 for siting; Method 2 or its allowable alternatives in appendices A-1 and A-2 to 40 CFR 60 ~~or its allowable alternatives in appendix A to 40 CFR 60~~ (except for Methods 2B and 2E ~~in appendix A-1 to 40 CFR 60~~) for stack gas velocity and volumetric flow rate; Methods 3, 3A or 3B in appendix A-2 to 40 CFR 60 for O_2 and CO_2; Method 4 in appendix A-3 to 40 CFR 60 for moisture; and for mercury, either ASTM D6784-02 (the Ontario Hydro Method, ~~) (~~incorporated by reference under Section 225.140), or Method 29 ~~in appendix A-8 to 40 CFR 60~~, Method 30A, or Method 30B in appendix A-8 to 40 CFR 60.

55. The Agency proposes amending Exhibit A, Section 7.1 to amend the title to include system integrity checks, to change linearity error to measurement error, and to add language to include system integrity checks in the definition for measurement error. The changes were made in response to comments received from USEPA.

7.1 Linearity and System Integrity Checks

Analyze the linearity check data for ~~pollutant concentration~~ Hg, CO_2, and O_2 monitors and the system integrity check data for Hg CEMS as follows. Calculate the percentage measurement error ~~in linearity~~ based upon the reference value at the low-level, mid-level, and high-level concentrations specified in Section 6.2 of this Exhibit. Perform this calculation once during the certification test. Use the following equation to calculate the measurement error ~~in linearity~~ for each reference value.

$$ME = \frac{|R - A|}{R} \times 100 \qquad \text{(Equation A-4)}$$

where,

~~L~~ME=Percentage ~~Linearity~~measurement error, based upon the reference value.

R=Reference value of ~~L~~low-, mid-, or high-level calibration gas introduced into the monitoring system.

A=Average of the monitoring system responses.

56. In response to comments received from USEPA, the Agency proposes amending Exhibit B, Section 2.1.3(b) to remove the word "tag," as it is not appropriate in this context.

(b) Routine calibration adjustments of a monitor are permitted after any successful calibration error test. These routine adjustments must be made so as to bring the monitor readings as close as practicable to the known ~~tag~~ values of the calibration gases or to the actual value of the flow monitor reference signals. An additional calibration error test is required following routine calibration adjustments where the monitor's calibration has been physically adjusted (e.g., by turning a potentiometer) to verify that the adjustments have been made properly. An additional calibration error test is not required, however, if the routine calibration adjustments are made by means of a mathematical algorithm programmed into the data acquisition and handling system. It is recommended that routine calibration adjustments be made, at a minimum, whenever the daily calibration error exceeds the limits of the applicable performance specification in Exhibit A to this Appendix for the pollutant concentration monitor, CO_2 or O_2 monitor, or flow monitor.

57. The Agency proposes amending Exhibit B, Section 2.1.4 to correct an erroneous citation.

2.1.4 Data Validation

(a) An out-of-control period occurs when the calibration error of a CO_2 or O_2 monitor (including O_2 monitors used to measure CO_2 emissions or percent moisture) exceeds 1.0 percent CO_2 or O_2, or when the calibration error of a flow monitor or a moisture sensor exceeds 6.0 percent of the span value, which is twice the applicable specification of Exhibit A to this Appendix. Notwithstanding, a differential pressure-type flow monitor for which the calibration error exceeds 6.0 percent of the span value will not be considered out-of-control if $|R - A|$, the absolute value of the difference between the monitor response and the reference value in Equation A-6 of Exhibit A to this Appendix, is < 0.02 inches of water. For a mercury monitor, an out-of-control period occurs when the calibration error exceeds 5.0% of the span value. Notwithstanding, the mercury monitor will not be considered out-of-control if $|R - A|$ in Equation ~~A-6~~A-5 does not exceed 1.0 µg/scm. The out-of-control period begins upon failure of the calibration error test and ends upon completion of a successful calibration error test. Note, that if a failed calibration, corrective action, and successful calibration error test occur within the same hour, emission data for that hour recorded by the monitor after the successful calibration error test may be used for reporting purposes, provided that two or more valid readings are obtained as required by Section 1.2 of this Appendix. Emission data must not be reported from an out-of-control monitor.

58. The Agency proposes amending Exhibit B, Section 2.2.1 to remove an exception for linearity checks that would only apply to SO_2 and NO_x monitors.

2.2.1 Linearity Check

~~Unless a particular monitor (or monitoring range) is exempted under this paragraph or under Section 6.2 of Exhibit A to this Appendix, p~~Perform a linearity check, in accordance with the procedures in Section 6.2 of Exhibit A to this Appendix, for each primary and redundant backup, mercury, ~~pollutant concentration~~ monitor and each primary and redundant backup CO_2 or O_2 monitor (including O_2 monitors used to measure CO_2 emissions or to continuously monitor moisture) at least once during each QA operating quarter, as defined in 40 CFR 72.2, incorporated by reference in Section 225.140. For mercury monitors, perform the linearity checks using elemental mercury standards. Alternatively, you may perform 3-level system integrity checks at the same three calibration gas levels (i.e., low, mid, and high), using a NIST-traceable source of oxidized mercury. If you choose this option, the performance specification in Section 3.2(c) of Exhibit A to this part must be met at each gas level. For units using both a low and high span value, a linearity check is required only on the range(s) used to record and report emission data during the QA operating quarter. Conduct the linearity checks no less than 30 days apart, to the extent practicable. The data validation procedures in Section 2.2.3(e) of this Exhibit must be followed.

59. *The Agency proposes amending Exhibit B, Section 2.2.5 to correct several cross-referencing errors.*

2.2.5 Flow-to-Load Ratio or Gross Heat Rate Evaluation

(a) Applicability and methodology. Unless exempted from the flow-to-load ratio test under Section ~~7.8 to Appendix A to 40 CFR Part 75~~ 7.6 of Exhibit A to this Appendix, the owner or operator must, for each flow rate monitoring system installed on each unit, common stack or multiple stack, evaluate the flow-to-load ratio quarterly, i.e., for each QA operating quarter (as defined in 40 CFR 72.2, incorporated by reference in Section 225.140). At the end of each QA operating quarter, the owner or operator must use Equation B-1 to calculate the flow-to-load ratio for every hour during the quarter in which: the unit (or combination of units, for a common stack) operated within +-10.0 percent of L_{avg}, the average load during the most recent normal-load flow RATA; and a quality assured hourly average flow rate was obtained with a certified flow rate monitor. Alternatively, for the reasons stated in paragraphs (c)(1) through (c)(6) of this Section, the owner or operator may exclude from the data analysis certain hours within +-10.0 percent of L_{avg} and may calculate R_h values for only the remaining hours.

$$R_h = \frac{Q_h}{L_h} \times 10^{-5} \qquad \text{(Equation B-1)}$$

where,

R_h = Hourly value of the flow-to-load ratio, scfh/megawatts, scfh/1000 lb/hr of steam, or scfh/(mmBtu/hr thermal output).

Q_h = Hourly stack gas volumetric flow rate, as measured by the flow rate monitor, scfh.

L_h = Hourly unit load, megawatts, 1000 lb/hr of steam, or mmBtu/hr thermal output; must be within + 10.0 percent of L_{avg} during the most recent normal-load flow RATA.

(1) In Equation B-1, the owner or operator may use either bias-adjusted flow rates or unadjusted flow rates, provided that all of the ratios are calculated the same way. For a common stack, L_h will be the sum of the hourly operating loads of all units that discharge through the stack. For a unit that discharges its emissions through multiple stacks or that monitors its emissions in multiple breechings, Q_h will be either the combined hourly volumetric flow rate for all of the stacks or ducts (if the test is done on a unit basis) or the hourly flow rate through each stack individually (if the test is performed separately for each stack). For a unit with a multiple stack discharge configuration consisting of a main stack and a bypass stack, each of which has a certified flow monitor (e.g., a unit with a wet SO_2 scrubber), calculate the hourly flow-to-load ratios separately for each stack. Round off each value of R_h to two decimal places.

(2) Alternatively, the owner or operator may calculate the hourly gross heat rates (GHR) in lieu of the hourly flow-to-load ratios. The hourly GHR must be determined only for those hours in which quality assured flow rate data and diluent gas (CO_2 or O_2) concentration data are both available from a certified monitor or monitoring system or reference method. If this option is selected, calculate each hourly GHR value as follows:

$$(GHR)_h = \frac{(HeatInput)_h}{L_h} \times 1000 \qquad \text{(Equation B-1a)}$$

where,

$(GHR)_h$ = Hourly value of the gross heat rate, Btu/kwh, Btu/lb steam load, or 1000 mmBtu heat input/mmBtu thermal output.

$(HeatInput)_h$ = Hourly heat input, as determined from the quality assured flow rate and diluent data, using the applicable equation in Exhibit C to this Appendix, mmBtu/hr.

L_h = Hourly unit load, megawatts, 1000 lb/hr of steam, or mmBtu/hr thermal output; must be within + 10.0 percent of L_{avg} during the most recent normal-load flow RATA.

(3) In Equation B-1a, the owner or operator may either use bias-adjusted flow rates or unadjusted flow rates in the calculation of $(HeatInput)_h$, provided that all of the heat input values are determined in the same manner.

(4) The owner or operator must evaluate the calculated hourly flow-to-load ratios (or gross heat rates) as follows. A separate data analysis must be performed for each primary and each redundant backup flow rate monitor used to record and report data during the quarter. Each analysis must be based on a minimum of 168 acceptable recorded hourly average flow rates (i.e., at loads within +- 10 percent of L_{avg}). When two RATA load levels are designated as normal, the analysis must be performed at the higher load level, unless there are fewer than 168 acceptable data points available at that load level, in which case the analysis must be performed at the lower load level. If, for a particular flow monitor, fewer than 168 acceptable hourly flow-to-load ratios (or GHR values) are available at any of the load levels designated as normal, a flow-to-load (or GHR) evaluation is not required for that monitor for that calendar quarter.

(5) For each flow monitor, use Equation B-2 in this Exhibit to calculate E_h, the absolute percentage difference between each hourly R_h value and R_{ref}, the reference value of the flow-to-load ratio, as determined in accordance with Section ~~7.7 to Appendix A to 40 CFR Part 75~~7.5 of Exhibit A to this Appendix. Note that R_{ref} must always be based upon the most recent normal-load RATA, even if that RATA was performed in the calendar quarter being evaluated.

$$E_h = \frac{\left|R_{ref} - R_h\right|}{R_{ref}} \times 100 \qquad \text{(Equation B-2)}$$

where:

E_h = Absolute percentage difference between the hourly average flow-to-load ratio and the reference value of the flow-to-load ratio at normal load.

R_h = The hourly average flow-to-load ratio, for each flow rate recorded at a load level within +-10.0 percent of L_{avg}.

R_{ref} = The reference value of the flow-to-load ratio from the most recent normal-load flow RATA, determined in accordance with Section ~~7.7 to Appendix A to 40~~

~~CFR Part 75~~7.5 of Exhibit A to this Appendix.

(6) Equation B-2 must be used in a consistent manner. That is, use R_{ref} and R_h if the flow-to-load ratio is being evaluated, and use (GHR)ref and (GHR) h if the gross heat rate is being evaluated. Finally, calculate E_f, the arithmetic average of all of the hourly E_h values. The owner or operator must report the results of each quarterly flow-to-load (or gross heat rate) evaluation, as determined from Equation B-2, in the electronic quarterly report required under 40 CFR 75.64, incorporated by reference in Section 225.140.

60. *In response to comments received from USEPA, the Agency proposes amending Exhibit B, Section 2.3.1.1 to specify that each moisture monitor must undergo a RATA.*

2.3.1.1 Standard RATA Frequencies

(a) Except for mercury monitoring systems, and as otherwise specified in Section 2.3.1.2 of this Exhibit, perform relative accuracy test audits semiannually, i.e., once every two successive QA operating quarters (as defined in 40 CFR 72.2, incorporated by reference in Section 225.140) for each primary and redundant backup flow monitor, CO_2 or O_2 diluent monitor used to determine heat input, and each moisture monitoring system. For each primary and redundant backup mercury concentration monitoring system and each sorbent trap monitoring system, RATAs must be performed annually, i.e., once every four successive QA operating quarters (as defined in 40 CFR 72.2). A calendar quarter that does not qualify as a QA operating quarter must be excluded in determining the deadline for the next RATA. No more than eight successive calendar quarters must elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted. If a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a 720 unit (or stack) operating hour grace period (as provided in Section 2.3.3 of this Exhibit) following the end of the eighth successive elapsed calendar quarter, or data from the CEMS will become invalid.

61. *The Agency proposes amending Exhibit B, Section 2.3.1.3 to remove numerous references to operating levels for reasons identical to those in errata item 48.*

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

(a) For CO_2 or O_2 diluent monitors used to determine heat input, mercury concentration monitoring systems, sorbent trap monitoring systems, moisture monitoring systems, the required semiannual or annual RATA tests must be done at the load level ~~(or operating level)~~ designated as normal under Section 6.5.2.1(d) of Exhibit A to this Appendix. If two load levels ~~(or operating levels)~~ are designated as normal, the required RATA(s) may be done at either load level ~~(or~~

~~operating level)~~.

(b) For flow monitors installed and bypass stacks all required semiannual or annual relative accuracy test audits must be single-load ~~(or single-level)~~ audits at the normal load~~(or operating level)~~, as defined in Section 6.5.2.1(d) of Exhibit A to this Appendix.

(c) For all other flow monitors, the RATAs must be performed as follows:

(1) An annual 2-load ~~(or 2-level)~~ flow RATA must be done at the two most frequently used load levels ~~(or operating levels)~~, as determined under Section 6.5.2.1(d) of Exhibit A to this Appendix. Alternatively, a 3-load ~~(or 3-level)~~ flow RATA at the low, mid, and high load levels~~(or operating levels)~~, as defined under Section 6.5.2.1(b) of Exhibit A to this Appendix, may be performed in lieu of the 2-load ~~(or 2-level)~~ annual RATA.

(2) If the flow monitor is on a semiannual RATA frequency, 2-load ~~(or 2-level)~~ flow RATAs and single-load ~~(or single-level)~~ flow RATAs at the normal load level ~~(or normal operating level)~~ may be performed alternately.

(3) A single-load ~~(or single-level)~~ annual flow RATA may be performed in lieu of the 2-load ~~(or 2-level)~~ RATA if the results of an historical load data analysis show that in the time period extending from the ending date of the last annual flow RATA to a date that is no more than 21 days prior to the date of the current annual flow RATA, the unit (or combination of units, for a common stack) has operated at a single load level ~~(or operating level)~~ (low, mid, or high), for ≥85.0 percent of the time. Alternatively, a flow monitor may qualify for a single-load ~~(or single-level)~~ RATA if the 85.0 percent criterion is met in the time period extending from the beginning of the quarter in which the last annual flow RATA was performed through the end of the calendar quarter preceding the quarter of current annual flow RATA.

(4) A 3-load ~~(or 3-level)~~ RATA, at the low-, mid-, and high-load levels ~~(or operating levels)~~, as determined under Section 6.5.2.1 of Exhibit A to this Appendix, must be performed at least once every twenty consecutive calendar quarters, except for flow monitors that are exempted from 3-load ~~(or 3-level)~~ RATA testing under Section 6.5.2(b) ~~or 6.5.2(e)~~ of Exhibit A to this Appendix.

(5) A 3-load ~~(or 3-level)~~ RATA is required whenever a flow monitor is ~~re-linearized~~re-characterized, i.e., when its polynomial coefficients or K factor(s) are changed, except for flow monitors that are exempted from 3-load ~~(or 3-level)~~ RATA testing under Section 6.5.2(b) ~~or 6.5.2(e)~~ of Exhibit A to this Appendix. For monitors so exempted under Section 6.5.2(b), a single-load flow RATA is required.

(6) For all multi-level flow audits, the audit points at adjacent load levels or at

adjacent operating levels (e.g., mid and high) must be separated by no less than 25.0 percent of the "range of operation," as defined in Section 6.5.2.1 of Exhibit A to this Appendix.

(d) A RATA of a moisture monitoring system must be performed whenever the coefficient, K factor or mathematical algorithm determined under Section 6.5.6 of Exhibit A to this Appendix is changed.

62. *The Agency proposes amending Exhibit B, Section 2.3.2(b)(2) to include the full citation to the appropriate Section of Appendix B, which was previously omitted.*

(2) The RATA may be done after performing only the routine or non-routine calibration adjustments described in Section 2.1.3 of this Exhibit at the zero and/or upscale calibration gas levels, but no other corrective maintenance, repair, re-linearization or reprogramming of the monitoring system. Trial RATA runs may be performed after the calibration adjustments and additional adjustments within the allowable limits in Section 2.1.3 of this Exhibit may be made prior to the RATA, as necessary, to optimize the performance of the CEMS. The trial RATA runs need not be reported, provided that they meet the specification for trial RATA runs in Section 1.4(b)(3)(G)(v) of this Appendix. However, if, for any trial run, the specification in Section 1.4(b)(3)(G)(v) of this Appendix is not met, the trial run must be counted as an aborted RATA attempt.

63. *The Agency proposes amending Exhibit B, subsection 2.3.2(d) and (f) to remove references to operating levels for reasons identical to errata item 48. Additionally, the Agency proposes replacing the word "re-linearize" with the more appropriate "re-characterize." Changes were made in response to USEPA comments.*

(d) For single-load ~~(or single-level)~~ RATAs, if a daily calibration error test is failed during a RATA test period, prior to completing the test, the RATA must be repeated. Data from the monitor are invalidated prospectively from the hour of the failed calibration error test until the hour of completion of a subsequent successful calibration error test. The subsequent RATA must not be commenced until the monitor has successfully passed a calibration error test in accordance with Section 2.1.3 of this Exhibit. Notwithstanding these requirements, when ASTM D6784-02 (incorporated by reference under Section 225.140) or Method 29 in appendix A-8 to 40 CFR 60, incorporated by reference in Section 225.140, is used as the reference method for the RATA of a mercury CEMS, if a calibration error test of the CEMS is failed during a RATA test period, any test run(s) completed prior to the failed calibration error test need not be repeated; however, the RATA may not continue until a subsequent calibration error test of the mercury CEMS has been passed. For multiple-load ~~(or multiple-level)~~ flow RATAs, each load level ~~(or operating level)~~ is treated as a separate RATA (i.e., when a calibration error test is failed prior to completing the RATA at a particular load level ~~(or operating level)~~, only the RATA at that load level ~~(or operating level)~~ must be repeated; the results

of any previously-passed RATA(s) at the other load level(s) ~~(or operating level(s))~~ are unaffected, unless re-characterization~~re-linearization~~ of the monitor is required to correct the problem that caused the calibration failure, in which case a subsequent 3-load ~~(or 3-level)~~ RATA is required), except as otherwise provided in Section 2.3.1.3(c)(5) of this Exhibit.

(f) For a 2-~~level~~load or 3-~~level~~load flow RATA, if, at any load level ~~(or operating level)~~, a RATA is failed or aborted due to a problem with the flow monitor, the RATA at that load level ~~(or operating level)~~ must be repeated. The flow monitor is considered out-of-control and data from the monitor are invalidated from the hour in which the test is failed or aborted and remain invalid until the passing of a RATA at the failed load level ~~(or operating level)~~, unless the option in paragraph (b)(3) of this Section to use the data validation procedures and associated timelines in Section 1.4(b)(3)(B) through (b)(3)(I) of this Appendix has been selected, in which case the beginning and end of the out-of-control period must be determined in accordance with Section 1.4(b)(3)(G)(i) and (ii) of this Appendix. Flow RATA(s) that were previously passed at the other load level(s) ~~(or operating levels(s))~~ do not have to be repeated unless the flow monitor must be ~~re-linearized~~re-characterized following the failed or aborted test. If the flow monitor is ~~re-linearized~~re-characterized, a subsequent 3-load ~~(or 3-level)~~ RATA is required, except as otherwise provided in Section 2.3.1.3(c)(5) of this Exhibit.

64. *The Agency proposes amending Exhibit B, Section 2.4(b) to provide a minor clarification of RATA frequency requirements. Also, language was deleted to remove references to operating levels, consistent with errata item 48.*

(b) Except for Hg monitoring systems~~as provided in Section 2.3.3 of this Exhibit~~ (which always have an annual RATA frequency), whenever a passing RATA of a gas monitor is performed, or a passing 2-load ~~(or 2-level)~~ RATA or a passing 3-load ~~(or 3-level)~~ RATA of a flow monitor is performed (irrespective of whether the RATA is done to satisfy a recertification requirement or to meet the quality assurance requirements of this Exhibit, or both), the RATA frequency (semi-annual or annual) must be established based upon the date and time of completion of the RATA and the relative accuracy percentage obtained. For 2-load ~~(or 2-level)~~ and 3-load ~~(or 3-level)~~ flow RATAs, use the highest percentage relative accuracy at any of the loads ~~(or levels)~~ to determine the RATA frequency. The results of a single-load ~~(or single-level)~~ flow RATA may be used to establish the RATA frequency when the single-load ~~(or single-level)~~ flow RATA is specifically required under Section 2.3.1.3(b) of this Exhibit or when the single-load ~~(or single-level)~~ RATA is allowed under Section 2.3.1.3(c) of this Exhibit for a unit that has operated at one load level ~~(or operating level)~~ for ~~>=~~≥85.0 percent of the time since the last annual flow RATA. No other single-load ~~(or single-level)~~ flow RATA may be used to establish an annual RATA frequency; however, a 2-load or 3-load ~~or a 2-level or 3-level)~~ flow RATA may be performed at any time or in place of any required single-load ~~(or single-level)~~ RATA, in order to establish an annual RATA frequency.

65. In response to comments received from USEPA, the Agency proposes amending Exhibit B, Section 2.5 to include an alternative to an additional audit test that is successful.

2.5 Other Audits

Affected units may be subject to relative accuracy test audits at any time. If a monitor or continuous emission monitoring system fails the relative accuracy test during the audit, the monitor or continuous emission monitoring system will be considered to be out-of-control beginning with the date and time of completion of the audit, and continuing until a successful audit test is completed following corrective action. Alternatively, the conditional data validation procedures and associated timelines in Sections 1.4(b)(3)(B) through (I) of this Appendix may be used following the corrective actions.

66. The Agency proposes amending Exhibit C, Sections 2.3.1 and 2.3.2 to clarify Equations F-18a and F-18b. The changes are inconsequential to the calculations, and were made in response to USEPA comments.

2.3.1

Calculate total quarterly heat input for a unit or common stack using a flow monitor and diluent monitor to calculate heat input, using the following equation:

$$HI_q = \sum_{hour=1}^{n} HI_i t_i \qquad \text{(Equation F-18a)}$$

Where:

HI_q = Total heat input for ~~the~~ quarter "q", mmBtu.

HI_i = ~~Hourly h~~Heat input rate for hour "i" during unit operation, using Equation F-15, F-16, F-17, or F-18, mmBtu/hr.

t_i = Hourly operating time for the unit or common stack, hour or fraction of an hour (in equal increments that can range from one hundredth to one quarter of an hour, at the option of the owner or operator).

n = Number of unit operating hours in the quarter.

2.3.2

Calculate total cumulative (year-to-date) heat input for a unit or common stack using a flow monitor and diluent monitor to calculate heat input, using the

following equation:

$$HI_c = \sum_{q=1}^{the\_current\_quarter} HI_q \qquad \text{(Equation F-18b)}$$

Where:

HI_c = Total heat input for the year to date, mmBtu.

HI_q = Total heat input for ~~the~~ quarter "q", mmBtu.

67. The Agency proposes amending Exhibit C, Sections 4.1.1 and 4.1.2 by replacing a "µ" symbol, correcting a capitalization error, moving the "(hr)" unit indicator in two instances, and specifying two instances where an incorporation by reference was not previously specified.

4.1.1

To determine the hourly mercury mass emissions when using a mercury concentration monitoring system that measures on a wet basis and a flow monitor, use the following equation:

$$M_h = KC_hQ_ht_h \qquad \text{(Equation F-28)}$$

Where:

M_h = Mercury mass emissions for the hour, rounded off to three decimal places, (ounces).

K = Units conversion constant, 9.978 x 10^{-10} oz-scm/µg-scf

C_h = Hourly mercury concentration, wet basis-(µg/wscm).

Q_h = Hourly stack gas volumetric flow rate (scfh)

t_h = Unit or stack operating time (hr), as defined in 40 CFR 72.2, ~~(hr)~~incorporated by reference in Section 225.140.

4.1.2

To determine the hourly mercury mass emissions when using a mercury concentration monitoring system that measures on a dry basis or a sorbent trap monitoring system and a flow monitor, use the following equation:

$M_h = KC_hQ_ht_h(1 - B_{ws})$ (Equation F-29)

Where:

M_h = ~~m~~Mercury mass emissions for the hour, rounded off to three decimal places, (ounces).

K = Units conversion constant, 9.978 x 10^{-10} oz-scm/~~<<mu>>~~µg-scf

C_h = Hourly mercury concentration, dry basis (µg/dscm). For sorbent trap systems, a single value of C_h (i.e., a flow-proportional average concentration for the data collection period), is applied to each hour in the data collection period, for a particular pair of traps.

Q_h = Hourly stack gas volumetric flow rate (scfh).

B_{ws} = Moisture fraction of the stack gas, expressed as a decimal (equal to %H_2O/ 100)

t_h = Unit or stack operating time (hr), as defined in 40 CFR 72.2, ~~(hr)~~incorporated by reference in Section 225.140.

68. *In response to comments received from USEPA, the Agency proposes amending Exhibit D, Section 2.0 to remove language that has subsequently been removed from 40 CFR Part 75.*

2.0 Principle.

Known volumes of flue gas are extracted from a stack or duct through paired, in-stack, pre-spiked sorbent media traps at an appropriate nominal flow rate. Collection of mercury on the sorbent media in the stack mitigates potential loss of mercury during transport through a probe/sample line. Paired train sampling is required to determine measurement precision and verify acceptability of the measured emissions data.
The sorbent traps are recovered from the sampling system, prepared for analysis, as needed, and analyzed by any suitable determinative technique that can meet the performance criteria. A section of each sorbent trap is spiked with Hg^0 prior to sampling. ~~This section is analyzed separately and the recovery value is used to correct the individual mercury sample for measurement bias.~~

69. *The Agency proposes amending Exhibit D, Section 8.0 Table K-1 Footnote FN** to remove language involving multiplying factor of 1.11 for single trap data. When one trap fails to meet QA requirements the valid trap may be used. The change was made in response to industry comments.*

[FN**] Note: If both traps fail to meet the acceptance criteria, the data from the pair of traps are invalidated. However, if only one of the paired traps fails to meet this particular acceptance criterion and the other sample meets all of the applicable QA criteria, the results of the valid trap may be used for reporting under this part~~, provided that the measured Hg concentration is multiplied by a factor of 1.111~~. When the data from both traps are invalidated and quality-assured data from a certified backup monitoring system, reference method, or approved alternative monitoring system are unavailable, missing data substitution must be used.

70. *In response to comments received from USEPA, the Agency proposes amending Exhibit D, Section 11.7 to correct two erroneous references.*

11.7 Calculation of Mercury Mass Emissions.

To calculate mercury mass emissions, follow the procedures in Section 4.1.2 of Exhibit C to this Appendix. Use the average of the two mercury concentrations from the paired traps in the calculations, except as provided in Section ~~2.2.3(h)~~1.3(h) of Exhibit ~~B~~A to this Appendix or in Table K-1.

71. *The Agency proposes amending Section 225.250(a)(3)(D)(iv) to correct an erroneous citation.*

iv) Audit Decertification. The Agency may issue a notice of disapproval of the certification status of a monitor in accordance with Section 225.260(c~~b~~).

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

/s Charles Matoesian
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) **SS**
)
COUNTY OF SANGAMON)

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state that I have served electronically the attached the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S THIRD ERRATA SHEET TO ITS PROPOSAL TO AMEND 35 ILL. ADM. CODE 225, upon the following person:

John Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601

and mailing it by first-class mail from Springfield, Illinois, with sufficient postage affixed to the following persons:

SEE ATTACHED SERVICE LIST

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

By: /s_ Charles E. Matoesian_____
Charles E. Matoesian
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