T6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60, 72, and 75

[OAR-2002-0056; FRL-]

RIN 2060-AJ65

Supplemental Notice for the Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Supplemental Notice of Proposed Rulemaking (SNPR).

SUMMARY: Today's action is a SNPR to a notice of proposed rulemaking (NPR) published on January 30, 2004 (69 FR 4651). The NPR proposed to: set national emission standards for hazardous air pollutants (NESHAP) pursuant to section 112 of the Clean Air Act (CAA); alternatively, to revise the regulatory finding EPA made by notice dated December 20, 2000 (65 FR 79825) pursuant to CAA section 112(n)(1)(A); and if the December 2000 finding is revised as proposed, to set standards of performance, under CAA section 111, for mercury (Hg) for new and existing coal-fired electric utility steam generating units (Utility Units), as defined in CAA section 112(a)(8), and for nickel (Ni) for new and existing oil-fired Utility Units. Thus, regardless of whether it would base its action on section 111 or 112, EPA intends to require reductions in the emissions of Hg and Ni from coal-

and oil-fired utility units, respectively.

Today's SNPR includes proposed rule language for the action proposed in the NPR published on January 30, 2004, proposed state plan approvability criteria, and a proposed model cap-and-trade rule. EPA is also proposing to revise regulations to establish methodologies to measure mercury (Hg) emissions from new and existing coal-fired electric utility steam generating units. Today's SNPR and the associated NPR are part of a broader effort to issue a coordinated set of emissions limitations for the power sector.

DATES: Comments. Submit comments on or before [INSERT DATE 45 DAYS AFTER PUBLICATION FOR THE PROPOSED RULE IN THE FEDERAL REGISTER].

Public Hearing. The EPA will hold a public hearing. The details of the public hearing, including the time, date, and location, will be provided in a future Federal Register notice and announced on EPA's web site for this rulemaking http://www.epa.gov/interstateairquality.

ADDRESSES: Comments. Comments may be submitted by mail (in duplicate, if possible) to EPA Docket Center (Air Docket), U.S. EPA West (6102T), Room B-108, 1200 Pennsylvania Ave., NW, Washington, DC 20460, Attention Docket ID No. OAR-2002-0056. By hand delivery/courier, comments may be submitted (in duplicate, if possible) to EPA Docket Center, Room B-108, U.S. EPA West, 1301 Constitution Ave., NW, Washington, DC 20460, Attention Docket ID No. OAR-2002-0056. Also, comments may be submitted electronically according to the detailed instructions as provided in the SUPPLEMENTARY INFORMATION section.

Docket. The official public docket is available for public viewing at the EPA Docket Center, EPA West, Room B-108, 1301 Constitution Ave., NW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: For general information on today's SNPR and specific information on today's action under CAA section 112, contact William Maxwell, Combustion Group (mail stop C439-01), Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541-5430, fax number (919) 541-5450, electronic mail (e-mail) address, maxwell.bill@epa.gov. For information on section 111 Hg Model Trading Rule contact Mary Jo Krolewski, U.S. EPA, 1200 Pennsylvania Ave (MC 6204J), Washington, DC 20460, telephone number (202) 343-9847, fax number (202) 343-2358, electronic mail (e-mail) address, krolewski.maryjo@epa.gov. For information on the part 75 Hg monitoring requirements contact Ruben Deza, U.S. EPA, 1200 Pennsylvania Ave (MC 6204J), Washington, DC 20460, telephone number (202) 343-3956, fax number (202) 343-2358, electronic mail (e-mail) address, deza.ruben@epa.gov.

SUPPLEMENTARY INFORMATION: Regulated Entities. Categories and entities potentially regulated by this action include the following:

Category	NAICS code[1]	Examples of potentially regulated entities
Industry	221112	Fossil fuel-fired electric utility steam generating units.
Federal government	22112[2]	Fossil fuel-fired electric utility steam generating units owned by the Federal government.
State/local/tribal government	22112[2]	Fossil fuel-fired electric utility steam generating units owned by municipalities.
	921150	Fossil fuel-fired electric utility steam generating units in Indian Country.

[1] North American Industry Classification System.

[2] Federal, State, or local government-owned and operated establishments are classified according to the activity in which they are engaged.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities EPA is now aware could potentially be regulated by this action. Other types of entities not listed could also be affected. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should examine the applicability criteria in §63.9981 of the proposed rule or §§60.45a and 60.46a of the proposed NSPS amendments. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section.

Docket. The EPA has established an official public docket for this action including both Docket ID No. OAR-2002-0056 and Docket ID No. A-92-55. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Not all items are listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they are aware of all materials relevant to the proposed rule. The official public docket is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B-108, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this Federal Register document electronically through the Internet under the "Federal Register" listings at http://www.epa.gov/fedrgstr/.

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

Certain types of information will not be placed in EPA Dockets. Information claimed as confidential business information (CBI) and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA’s electronic public docket. The EPA’s policy is that copyrighted material will not be placed in EPA’s electronic public docket but will be available only in printed paper form in the official public docket. To the extent feasible, publicly available docket materials will be made available in EPA’s electronic public docket. When a document is selected from the index list in EPA Dockets, the system will identify whether the document is available for viewing in EPA’s electronic public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the EPA Docket Center.

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

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

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

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

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

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at http://www.epa.gov/edocket and follow the online instructions for submitting comments. To access EPA's electronic public docket from the EPA Internet home page, select “Information Sources,” “Dockets,” and “EPA Dockets.” Once in the system, select “search,” and then key in Docket ID No. OAR-2002-0056. The system is an anonymous access system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

Comments may be sent by e-mail to a-and-r-docket@epa.gov, Attention Docket ID No. OAR-2002-0056. In contrast to EPA’s electronic public docket, EPA’s e-mail system is not an anonymous access system. If you send an e-mail comment directly to the Docket without going through EPA’s electronic public docket, EPA’s e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA’s e-mail system are included as part of the comment that is placed in the official public docket and made available in EPA’s electronic public docket.

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

By Mail. Send your comments (in duplicate if possible) to EPA Docket Center (Air Docket), U.S. EPA West (6102T), Room

B-108, 1200 Pennsylvania Ave., NW, Washington, DC, 20460, Attention Docket ID No. OAR-2002-0056. The EPA requests a separate copy also be sent to the contact person listed above (see FOR FURTHER INFORMATION CONTACT).

By Hand Delivery or Courier. Deliver your comments (in duplicate, if possible) to EPA Docket Center, Room B-102, U.S. EPA West, 1301 Constitution Ave., NW, Washington, DC, 20460, Attention Docket ID No. OAR-2002-0056. Such deliveries are only accepted during the Docket's normal hours of operation as identified above.

By Facsimile. Fax your comments to (202) 566-1741, Attention Docket ID No. OAR-2002-0056.

CBI. Do not submit information that you consider to be CBI electronically through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: Mr. William Maxwell, c/o OAQPS Document Control Officer (Room C404-2), U.S. EPA, Research Triangle Park, 27711, Attention Docket ID No. OAR-2002-0056. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD-ROM, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

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

Public Hearing. Persons interested in presenting oral testimony should contact Ms. Kelly Hayes, Combustion Group (C439-01), Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, North Carolina 27711, telephone (919) 541-5578, at least 2 days in advance of the public hearing. If no requests to present oral testimony are received by this date, EPA will cancel the hearing and announce the cancellation on the web-site for this rulemaking, http://www.epa.gov/interstateairquality.

The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning the proposed rule. If a public hearing is requested and held, EPA will ask clarifying questions during the oral presentation but will not respond to the presentations or comments. Written statements and supporting information will be considered with the same weight as any oral statement and supporting information presented at a public hearing.

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

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I. Background

A. Summary of January 30, 2004 NPR

In a notice of proposed rulemaking (NPR) published on January 30, 2004 (69 FR 4651), EPA proposed: (1) set national emission standards for hazardous air pollutants (NESHAP) pursuant to section 112 of the Clean Air Act (CAA); (2) alternatively, to revise the regulatory finding that it made on December 20, 2000 (65 FR 79825) pursuant to CAA section 112(n)(1)(A) (December 2000 Finding); and (3) if the December 2000 finding is revised as proposed, to set standards of performance pursuant to CAA section 111 for both mercury (Hg) for new and existing coal-fired electric utility steam generating units (Utility Units), as defined in CAA section 112(a)(8); and nickel (Ni) for new and existing oil-fired Utility Units . Thus, regardless of whether it would base its actions on section 111 or 112, EPA intends to require reductions in the emissions of Hg and Ni from coal- and oil-fired utility units, respectively. The January 30, 2004 NPR, and today's SNPR, are part of a broader effort to issue a coordinated set of emissions limitations for the power sector.

The December 2000 Finding consisted of a finding, pursuant to CAA section 112(n)(1)(A), that regulation of coal- and oil-fired Utility Units under CAA section 112 is appropriate and necessary. The section 112 “MACT” rule proposed in the January 30, 2004 NPR would require coal- and oil-fired Utility Units to meet hazardous air pollutant (HAP) emissions standards reflecting the application of the maximum achievable control technology (MACT) determined pursuant to the procedures set forth in CAA section 112(d). In the January 30, 2004 NPR, EPA also co-proposed and solicited comment on implementing a cap-and-trade program under section 112, similar to that proposed under section 111 of the CAA.

The proposed NPR CAA section 112 MACT rule would limit emissions of Hg from coal-fired EGUs and Ni from oil-fired EGUs. Exposure to Hg or Ni above identified thresholds has been demonstrated to cause a variety of adverse health effects. The NPR also proposed an alternative to regulate Hg from coal-fired EGUs and Ni from oil-fired EGUs under Section 111.

In the January 30, 2004 NPR, EPA also proposed, in the alternative, standards of performance under CAA section 111 to establish a mechanism by which Hg emissions from new and existing coal-fired Utility Units would be capped at specified, nation-wide levels. A first phase cap would become effective in 2010 and a second phase cap would become effective in 2018. Facilities would demonstrate compliance with the standard by holding one "allowance" for each ounce of Hg emitted in any given year. Allowances would be readily transferrable among all regulated facilities. EPA believes that such a "cap and trade" approach to limiting Hg emissions is the most cost effective way to achieve the reductions in Hg emissions from the power sector that are needed to protect human health and the environment.

The added benefit of this cap-and-trade approach is that it dovetails well with the sulfur dioxide (SO_2) and nitrogen oxides (NO_x) Interstate Air Quality Rule (IAQR) that was also proposed through a notice January 30, 2004 (69 FR 4565). That proposed rule would establish a broadly-applicable cap and trade program that would significantly limit SO_2 and NO_x emissions from the power sector. The advantage of regulating Hg at the same time and using the same regulatory mechanism as for SO_2 and NO_x is that significant Hg emissions reductions can and will be achieved by the air pollution controls designed and installed to reduce SO_2 and NO_x. In other words, significant Hg emissions reductions can be obtained as a "co-benefit" of controlling emissions of SO_2 and NO_x. Thus, the coordinated regulation of Hg, SO_2, and NO_x allows Hg reductions to be achieved in a cost effective manner. This is consistent with Congress' intent expressed in CAA section 112(n), that EPA would regulate HAP emissions from Utility Units only after taking into account compliance with other CAA programs.

B. Overview of Today's Action

Today's action is a SNPR augmenting EPA's January 30, 2004 NPR. This SNPR includes proposed rule language for the action proposed in the NPR and proposed state plan approvability criteria. This SNPR also includes a model cap-and-trade rule, including the proposed CFR rule language for the basic elements of the proposed Hg Budget Trading Program. The rule language is located at the end of the preamble.

In today's SNPR, EPA is proposing that each state impose control requirements that demonstrate it will meet its statewide Hg emissions budget, proposed in the NPR. States may join the trading program by adopting or referencing the model trade rule in State regulations or adopting regulations that mirror the necessary components of the model trading rule. Today's SNPR identifies the necessary common components of state rule rules and identifies EPA and state responsibilities for administering a Hg trading program. Today's notice also discusses the program elements of the model trading program, including applicability, allowance allocations, banking, compliance, and enforcement.

EPA is also proposing to revise Parts 72 and 75 to establish methodologies to measure mercury (Hg) emissions from new and existing coal-fired electric utility steam generating units. In today's proposed rule, EPA would add subpart I to Part 75. Subpart I would provide mercury monitoring requirements that could be adopted by State agencies (or, if necessary, by EPA) as part of any regulatory requirements included in the final rules. Proposed Subpart I sets forth general procedures for measuring total vapor phase mercury mass emissions from fossil fuel-fired electric generating units, using continuous emission monitoring systems or sorbent trap monitoring systems. In addition to adding Subpart I to Part 75, today's proposed rule would revise the regulatory language at several places in Parts 72 and 75 to include specific mercury monitoring definitions and provisions.

II. Standard of Performance Requirements

A. Introduction

The January 30, 2004 NPR explained that under the section 111 co-proposal each State would be required to submit a state plan demonstrating "that each State will meet the assigned statewide mercury emission budget.” Each state plan should include fully-adopted State rules for the mercury reduction strategy with compliance dates providing for controls by 2010 and 2018.

The purpose of this section is to identify criteria for determining approvability of a State submittal in response to the performance standard requirements. In addition, this section describes the actions the Agency intends to take if a State fails to submit a satisfactory plan.

B. Performance Standard Approvability Criteria

As discussed in the NPR, Section 111 (a) and (d)(1) authorizes EPA to promulgate a “standard of performance” that States must apply to existing sources through a State plan. As also discussed in the NPR, EPA is interpreting the term “standard of performance”, as applied to existing sources, to include a cap-and-trade program.

The State budgets are not an independently enforceable requirement. Rather, each State must impose control requirements that the State demonstrates will limit state-wide emissions from affected new and existing sources to the amount of the budget. EPA believes that the best way to assure this emission limitation is for the State to assign to each affected source - new and existing - an amount of allowances that sum to the state budget. Therefore, EPA proposes that all regulatory requirements be in the form of a maximum level of emissions - that is, a cap - for the sources. Also, consistent with the IAQR, EPA is proposing that States may meet their Statewide emission budget by allowing their sources to participate in a national cap-and-trade program. That is, a State may authorize its affected sources to buy and sell allowances out of state, so that any difference between the State's budget and the total amount of statewide emissions will be offset in another State (or States).

EPA notes that the January 30, 2004 NPR stated that States not participating in the trading program would be required to make the individual source allocations specified in the NPR (as noted above) as the basis for the Statewide budget. In today's supplemental notice, EPA is proposing that each State must submit a demonstration that it will meet its assigned Statewide emission budget, but that regardless of whether the State participates in a trading program, the State may allocate its allowances by its own methodology rather than following the method used by EPA to derive the state emissions budgets. This alternative approach is consistent with the approach in the IAQR (see 69 FR 4565).

Moreover, States remain authorized to require emissions reductions beyond those required by the State budget, and nothing in today's SNPR or the associated NPR would preclude the States from requiring such stricter controls.

In addition, EPA proposes today that sources would be required to comply with the 40 CFR part 75 requirements proposed today. EPA believes that compliance with these requirements are necessary to demonstrate compliance with a mass emissions limit.

If a State fails to submit a State plan as proposed to be required in the January 30, 2004 NPR and today's SNPR, EPA would prescribe a Federal plan for that State, under CAA section 111(d)(2)(A). EPA proposes today's model rule as that Federal plan. By the same token, as discussed below, EPA proposes today's model rule (with some changes) as the regulatory requirements under section 112(n)(1)(A), as co-proposed in the NPR as the basis for Hg regulation.

C. Best Demonstrated Technology - Activated Carbon Injection

Mercury-specific air pollution control device development has made major strides since the EPA announced it's Information Collection Request in 1998. Currently, there are a broad range of technologies under consideration, consistent with the view that the EPA believes a portfolio approach is required to adequately and effectively implement significant reductions in mercury emissions from coal-fired power plants. In selecting a Hg emissions control technology approach, there are temporal relationships between research and development projects, technology demonstration projects, and commercial deployment of new technologies, which must be taken into consideration when designing and proposing long-term regulatory development programs similar to the section 111 Trading Program of this proposal.

1. Mercury Control Technologies

Ongoing Hg Research and Development (R&D) programs recognize that conventional air pollution control technologies (e.g., scrubbers, SCRs and fabric filters) remove about one-third of the potential Hg emissions from today's coal-fired power plants. EPA's Office of Research and Development (ORD) has published an excellent report that describes these technologies and their effectiveness in reducing Hg emissions.[1] Additionally, they have recently completed a memo which updates the status of Hg control technologies relative to coal-fired power plants.[2] These

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[1] See Control of Mercury Emissions from Coal-fired Electric Utility Boilers: Interim Report, EPA-600/R-01-109, April 2002.

[2] See "Control of Mercury Emissions from Coal-fired Electric Utility Boilers", U.S. EPA, Office of Research and

existing criteria pollutant control technologies are commercially deployed today, but generally show inconsistent levels of mercury control from plant to plant. These R&D programs focus on ways to make these existing technologies more effective and more consistent at controlling Hg emissions, and on altogether new approaches for Hg emissions control. The Department of Energy (DOE) is committed to an aggressive R&D program in support of EPA's commitment to significantly reduce Hg emissions from coal-fired power plants.[3]

There are two overarching goals for the DOE R&D program: (1) to develop control technologies capable of 50-70% Hg capture for commercial demonstration at bituminous coal-fired power plants by 2005, and at lower rank coal-fired power plants by 2007 and (2) to develop lower cost control technologies capable of 90% Hg capture for commercial demonstration by 2010. The DOE R&D program takes technologies from a conceptual level through bench scale and pilot scale proof of concept. For the more promising technologies, defined in terms of performance and cost, full-scale field tests are conducted to generate the

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Development memorandum, February 2004.

[3] See Mercury Control Technologies, U.S. Department of Energy memorandum, January 8, 2004.

information necessary for a multi-year demonstration project. In addition to funding for the Hg R&D program, DOE is also provided funds by Congress to conduct such full-scale technology demonstrations under the Clean Coal Power Initiative.

Several categories of technologies are now under development and evaluation at DOE and ORD, which EPA has considered in proposing regulations for Hg emissions from coal-fired power plants. These include sorbent injection technologies, technologies that enhance the Hg capture of traditional pollutant controls, such as SO_2 “scrubbers” and electrostatic precipitators (ESPs), multi-pollutant control technologies, and novel concepts.

a. Sorbent Injection Technologies. DOE and ORD have supported sorbent injection projects at the bench, pilot, and commercial-scale. This type of technology has the greatest promise for taking Hg control beyond the performance of conventional (non-Hg) technologies in the near-term. During short-term tests, these technologies have achieved emissions reductions as high as 90% of inlet Hg levels on bituminous coals. Performance on subbituminous coals has been as high as 65% reduction. In addition, systems with supplemental fabric filters have been more effective than those with ESPs. Although full scale sorbent injection tests have focused on activated carbon injection, DOE is also sponsoring pilot scale research on lower cost sorbents. DOE is now engaged in longer-term studies of sorbent injection technologies in order to gain the information needed to conduct multi-year commercial demonstrations of this technology. Given the differences in the effectiveness of this technology on coals of different rank and chlorine content, it is likely that several demonstration projects will be necessary to establish predictable cost and performance for this type of Hg control.

b. Enhanced Conventional Technologies. Air pollution systems designed to capture emissions of sulfur dioxide (SO_2) and particulate matter (PM) generally capture some Hg emissions as well. DOE is investigating methods to enhance the performance of such systems on Hg emissions capture. In general, these systems seek to increase the oxidized fraction of Hg present in the power plant's flue gas, and decrease the fraction of elemental Hg, which is more difficult to capture. DOE has had mixed results from injecting chemicals to enhance the Hg removal by wet scrubbers designed for SO_2 capture. URS Corporation is working with DOE to develop catalytic approaches to oxidizing elemental Hg in flue gases. This program began in

2001 and will continue through 2004.

c. Multi-Pollutant Capture Technologies. Multi-pollutant approaches have potential synergies which could increase pollution reduction and lower control costs. Work with the Electro-catalytic oxidation process under development by Powerspan Corporation was initiated in 2001 and will continue through 2004. Early pilot-scale results have been encouraging, but the inlet Hg for these tests was much lower in elemental Hg than levels expected at many commercial sites. Additional elemental Hg is being added to the test system to simulate removal at other sites.

Calcium-based sorbents and oxidizing agents are being evaluated under a cooperative agreement between DOE and the Southern Research Institute. These systems could remove both SO_2 and Hg, and could be helpful particularly with lower rank coals.

d. Novel Approaches to Mercury Control. It has long been observed that poorly tuned coal burners generate higher levels of unburned carbon in coal ash than properly tuned burners. This unburned carbon, although undesirable from an efficiency perspective, can function like activated carbon injection and adsorb Hg emissions. DOE has patented a process to take advantage of this phenomenon by extracting partially combusted coal from the furnace, and reinjecting it in the flue gas after the air preheater. Pilot-scale tests have been very promising.

DOE is also investigating the ability of a specific wavelength of ultraviolet light to oxidize elemental Hg to a form more easily captured by conventional air pollution control equipment.

2. Longer-Term Field Tests

In contrast to most of DOE’s short-term Hg R&D projects, in September 2003, DOE initiated a series of eight longer-term, large-scale field tests that will investigate the potential for improvements and more wide-spread applicability of Hg control using one or more of the approaches outlined above. The actual testing varies by project, but generally will begin in early 2004 and last for several months. Technologies to be evaluated include both sorbent-based approaches, like activated carbon injection, as well as oxidation-based approaches intended to improve Hg collection by more traditional air pollution control technologies.

3. Initial Mercury Demonstration Projects

As discussed above, the DOE and ORD R&D programs are complemented by a demonstration program within the Clean Coal Power Initiative. In January 2003, DOE announced the first awards under this program[4], including the following two projects that would demonstrate Hg emissions reduction technologies:

Wisconsin Electric Power Company's Presque Isle plant will evaluate the TOXECON process combined with chemical additives as an integrated Hg, particulate matter, SO_2, and NO_x emissions control system. In this project, sorbents, including powdered activated carbon for Hg control and chemicals for NO_x and SO_2 control, will be injected into flue gas for subsequent reaction with pollutants and collection in a pulse-jet baghouse that is installed downstream of the existing particulate control device. The TOXECON configuration allows for separate treatment or disposal of the ash collected in the primary particulate control device. The duration of the project is estimated to be 5 years, and its overall cost is $75 million.

The City of Colorado Springs is teaming with Foster Wheeler to demonstrate an advanced circulating fluidized bed combustor, with integrated pollution controls expected to reduce Hg emissions by over 90 percent. This 6-year project carries a total cost of just over $300 million.

These projects evidence the commitment of project

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4 See http://www.fe.doe.gov/news/techlines/03/tl_ccpi_2003sel.html .

participants, including DOE and ORD, to invest the resources needed to bring promising Hg control concepts to commercial readiness. We believe the nature of the Hg control challenge is so complex that a number of additional demonstration projects will be needed, but we are confident that resources will be made available to pursue those projects and solutions will be developed that have broad application.

4. The Timing of Technology Development and Commercialization

The normal flow of development of new technologies is R&D at the bench scale and pilot scale (typically 2 to 4 years), followed by large scale testing (typically one year under a range of operating conditions and technology configurations at a facility), followed by one or more cycles of full-scale demonstrations (typically 6 years each).

In implementing the Clean Coal Technology Program, DOE has gained extensive experience with the process of demonstrating emerging air pollution control technologies. Based on SO_2 and NO_x retrofit technology demonstrations, the typical project required a little over 6 years from selection of the project to reports on its technical performance. This time period excluded the administrative time needed to solicit and evaluate proposals. In addition, the actual project duration was truncated for one-half of these projects to exclude unusually lengthy reporting periods following completion of the technology testing period.

Although pursuit is continuing on some Hg emissions control technologies at the bench and pilot scale, much work has already been completed at these smaller scales. However, some technologies, like sorbent injection, have entered the large scale field testing stage, and we have initiated a full-scale demonstration project for sorbent injection technology. It appears that these technologies, with at least 50-70% Hg emissions reduction, will be ready for broader full-scale demonstration on bituminous coal in 2005, and on subbituminous coal and lignite in 2007. If these demonstrations are successful, commercial deployment could occur on a large scale after 2010, or perhaps later. Assuming two years to permit and construct such commercial units, large scale operation of the technology is feasible by 2013 and 2015. It is important to note that reliable and predictable performance will be achieved only if such demonstration projects can be completed on a range of coal types with a range of characteristics (such as Hg, chlorine, and sulfur content), and at plants with a range of hardware

(ESPs of varying relative sizes; spray dryers on coals with low chlorine content). Additional technologies, perhaps much lower in costs, should follow in 2-4 additional years.

Greater Hg emissions reduction performance is an integral part of DOE's and ORD's Hg emissions control technology development programs. A second wave of technologies operating at 90% reduction should be ready for full-scale demonstration by 2010, leading to effective reductions after 2018. An important caveat to these time projections is that they could be extended if the same units being retrofit for Hg emissions must contemporaneously focus on installing separate pollution control systems for other pollutants. The significance of this potential problem will vary with the type of control technologies being installed.

Substantial progress in Hg control technology development has been achieved through a partnership between government (both ORD and DOE) and industry. A broad portfolio of technologies is beginning to emerge, and EPA is confident these technologies will most likely be able to provide 50 to 70% reduction of Hg emissions in the period after 2015, with up to 90% reduction of Hg emissions on many applications after 2018. Thus, EPA is proposing a Phase II cap of 15 tons in this supplemental notice, which will take full advantage of the emerging, demonstrated technologies that are outlined above. More details and actual demonstration data are available in the docket related to this rulemaking effort.

D. Compliance Date for Nickel Controls

In the January 30, 2004 NPR, EPA proposed that the compliance date for Ni controls under section 111(d) correspond to the 2010 compliance date for the Phase I Hg controls. EPA concluded that the compliance dates for the two sets of controls should be synchronized. The oil-fired unit population is limited (the number of existing units is approximately 130) and their primary use is in providing peak shaving power during periods of high electricity demand. Moreover, current industry guidance indicates that the viability of new oil-fired generation is extremely limited due to the economic and generation efficiencies afforded by natural gas-fired simple- and combine-cycle stationary combustion turbine units.

III. Emission Guidelines and Compliance Times for Coal-fired Electric Utility Steam Generating Units

In the January 30, 2004 NPR to reduce national mercury emissions, EPA stated that it would develop and administer a national Hg trading program to assist States in the achievement of these goals; today's notice proposes such a program. This program employs a cap on total emissions in order to ensure that emissions reductions are achieved, while providing the flexibility and cost effectiveness of a market-based system. This Section provides background information and a description of the Hg Budget Trading Program, as well as an explanation of how the trading program would interface with other State and Federal programs. In addition, a model rule for the trading program is proposed. States can voluntarily choose to participate in the Hg Budget Trading Program, and they may do so by adopting the model rule, which is a fully approvable control strategy for achieving emissions reductions required under the mercury reduction rulemaking. States may submit rules other than the model rule, but EPA will need to review such rules. States who do not adopt the model trading rule cannot participate in the inter-state trading program administered by EPA.

More specifically, States that choose to participate in the Hg Budget Trading Program must adopt all the provisions of the model rule, except that they have the flexibility with respect to the requirements for allocating allowances to their sources. The applicability of the model trading rule is discussed more fully below. EPA must review these State rules through notice-and-comment rulemaking, but this rulemaking will be expedited for, at the least, those State rules that mirror the model rule. If a State does not choose to participate in the Hg Budget Trading Program (that is, it does not wish to allow its sources to participate in inter-state trading, and it may or may not wish allow its sources to participate in intra-state trading), then the State may submit rules other than the model rule, and EPA will evaluate these rules in the regular course of notice-and-comment rulemaking.

A. Program Summary

As discussed in the January 30, 2004 NPR, the trading program establishes, for affected utility units, a first phase Hg cap at a level that reflects the Hg reductions expected as co-benefits accompanying the SO_2 and NO_x caps in the IAQR in 2010 and 2015 and a Phase II cap of 15 tons starting in 2018. The new trading program for Hg would require sources to hold allowances covering emissions beginning January 1, 2010. EPA is also proposing that the owner or operator must hold allowances for all the affected Utility Units at a facility at least equal to the total Hg emissions for those units during the year. Compliance with the requirement to hold allowances will thus be determined on a facility-wide basis. In the January 30, 2004 NPR, EPA proposed a methodology for unit allocations for existing units (see 69 FR 4651). New units will also be covered under the Hg cap of the trading program and will be required to hold allowances.

B. Hg Budget Trading Program

1. General Provisions

Today's proposed Hg Budget Trading Rule will be incorporated into the 40 CFR part 60 as a new subpart HHHH. The new sections in subpart HHHH of 40 CFR part 60 are described below. The provisions of 40 CFR part 60 subpart HHHH will become effective and apply to sources only if a State incorporates 40 CFR part 60 subpart HHHH by reference into the State's regulation or adopts regulations that are in accordance with 40 CFR part 60 subpart HHHH.

a. Overview and Purpose. Section 60.4100 through 60.4106 of today's proposed Hg Budget Trading Rule includes Sections describing: to whom the Hg trading program would apply; the standard requirements for participants in the program (permitting, Hg allowances, monitoring, excess emissions, and liability provisions); exemptions for retired units from the program requirements; definitions, measurements, and abbreviations; and computation of deadlines stated within the proposal.

b. Definitions, Measurements, Abbreviations, and Acronyms. Many of the definitions, measurements, abbreviations, and acronyms are the same as those used in 40

CFR part 60, in order to maintain consistency among programs. However, certain terms specific to the Hg Budget Trading Program, including Hg Budget unit (a unit subject to the emissions limitation under the Hg Budget Trading Program) and several others are added. Key definitions are discussed in relevant Sections below describing the rule.

c. Applicability. The EPA proposes that the Hg Budget Trading Rule be applicable to coal-fired Utility Units. The term “electric utility steam generating unit” means any fossil fuel fired combustion unit that serves a generator of more than 25 MW that produces electricity for sale. A unit that cogenerates steam and serves a generator that supplies more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale shall be considered an Utility Unit.

i. Monitoring. In general, sources that participate in a cap-and-trade program must have the ability to accurately and consistently account for their emissions. Accuracy is an important design parameter because it ensures that emissions for all sources covered by the trading program are within the cap. In addition, because each Hg allowance will have economic value, it is important to ensure that emissions (and thus allowances used) are accurately quantified. Consistency is an important feature because it ensures that accuracy is maintained from source to source and year to year. It also ensures that the sources in the trading program are treated equitably. Finally, consistency facilitates administration of the program for both the regulated community and State and Federal agencies.

Consistent and accurate quantification of emissions ensures the integrity of a Hg reduction program. The continuous emissions monitoring methods must incorporate rigorous quality assurance testing and substitute data provisions for times when monitors are unavailable because of planned and unplanned outages. In addition, there must be requirements for record keeping and electronic reporting. Provisions like these are contained in 40 CFR part 75, and are used in both the Acid Rain and NO_x SIP Call programs, for SO_2 and NO_x, but not currently for Hg.

As discussed further below, EPA is proposing revisions to 40 CFR part 75 to establish requirements for mercury emission monitoring, quality assurance, substitute data, record keeping, and reporting and to include a requirement for States to require year-round part 75 monitoring and reporting for all sources. EPA believes that emissions will then be consistently and accurately monitored and reported from unit to unit and from State to State.

ii. Responsible Party. Another critical element of a trading program is to be able to identify a responsible party for each regulated source. The responsible party for a source covered by the trading program would be required to demonstrate compliance with the provisions of the Hg Budget Trading Program. In general, the coal-fired electric Utility Units included in the proposed trading program have readily identifiable owners and operators that would serve as the responsible party.

d. Retired Unit Exemption. Section 60.4105 of today's proposal provides an exemption from Hg Budget Trading Program requirements for retired units. The purpose of this provision is to free retired Hg Budget units from unnecessary requirements (e.g., emissions monitoring and reporting). The EPA proposes an exemption beginning on the day the unit permanently retires, requiring no notice and comment period regarding the retirement. This provision proposes that the mercury authorized account representative (Hg AAR) (i.e., the person authorized by the owners and operators to make submissions and handle other matters) submit notification to the permitting authority of the Hg Budget unit's retirement within 30 days of the cessation of activity. In response, the permitting authority would amend the operating permit in accordance with the exemption and notify EPA of the unit's status as exempt. Criteria within this provision ensure that all program requirements prior to the exemption are fulfilled and records are kept on site to verify the non-emitting status of the retired unit. A retired unit could continue to hold Hg allowances previously allocated or be allocated Hg allowances in the future depending on the allocation provisions adopted by the State where the retired unit is located. The number of future year Hg allowances that a retired unit would be allocated would be dependent on the given State's allocation system. The Hg allowance allocations are discussed below in Section II.B.5 of this preamble.

In order to resume operation without violating program requirements (i.e., an exemption requires that the unit's permit language be changed to reflect that it would not emit any Hg emissions), the Hg AAR of the Hg Budget unit must submit a permit application to the permitting authority no less than 18 months (or less, if so specified by the applicable State permitting regulations) prior to the date on which the unit is first to resume operation, to allow the permitting authority time to review and approve the application for the unit's re-entry into the program. If a retired unit resumes operation, EPA proposes to automatically terminate the exemption under this part.

e. Standard Requirements. Today's proposal delineates, in proposed §60.4106, the standard requirements that Hg budget units and their owners, operators, and Hg AARs must meet under the Hg Budget Trading Program. This provision sets forth and provides references to other portions of the trading rule for the full range of program requirements: permits, monitoring, Hg emissions limitations, excess emissions, recordkeeping and reporting, liability, and effect on other authorities. For example, the permitting, monitoring, and emissions limit requirements are discussed in general and the relevant Sections of the trading rule are cited. The liability provisions state that the requirements of the trading program must be met, and any knowing violations or false statements are subject to enforcement under the applicable State or Federal law. Violations and the associated liability are established on a facility-wide basis. The provision addressing the effect on other authorities establishes that no provision of the trading program can be construed to exempt the owners or operators of a Hg Budget source from compliance with any other provision of the applicable SIP, any federally enforceable permit, or the CAA. This provision ensures, for example, that a State may set a binding source-specific Hg limitation and, regardless of how many allowances a Hg Budget source holds under the trading program, the emissions limit established in the SIP cannot be violated.

f. Computation of Time. Proposed §60.4107 clarifies how to determine the deadlines referenced in the proposal. For example, deadlines falling on a weekend or holiday are extended to the next business day. These are the same computation-of-time provisions as are in the regulation for the other emissions trading programs.

2. Hg Authorized Account Representative (AAR)

Sections 60.4110 through 60.4114 of today's proposed Hg Budget Trading Rule establishes the process for certifying the Hg AAR and describes his or her duties. A Hg AAR is the individual who is authorized to represent the owners and operators of each Hg Budget unit at a Hg Budget source in matters pertaining to the Hg Budget Trading Program. Because the Hg AAR is representing the owners and operators of all the Hg Budget units at a Hg Budget source, the Hg AAR must certify that he or she was selected by an agreement binding on all such owners and operators and is authorized to act on their behalf. The Hg AAR's responsibilities include: the submission of permit applications to the permitting authority, submission of monitoring plans and certification applications, holding and transferring Hg allowances, and submission of emissions data and compliance reports.

The Agency recognizes that the Hg AAR cannot always be available to perform his or her duties. Therefore, the rule proposes to allow for the appointment of one alternate Hg AAR (alternate Hg AAR) for a Hg Budget source. The alternate Hg AAR would have the same authority and responsibilities as the Hg AAR. Therefore, unless expressly provided to the contrary, whenever the term “Hg authorized account representative” is used in the rule, it should be read to apply to the alternate Hg AAR as well. While the alternate Hg AAR would have full authority to act on behalf of the Hg AAR, all correspondence from EPA, including reports, would be sent only to the Hg AAR.

Today’s proposal requires the completion and submission of the account certificate of representation form in order to certify a Hg AAR for a Hg Budget source and all Hg Budget units at the source. There would be one standard form which would be submitted by sources to EPA. The EPA would establish a compliance account for each source in the mercury allownce tracking system (MATS). The form would include: the plant name, State, and identifying number (ORIS or facility code); the identifying number of each Hg budget unit at the source; the Hg AAR name, the Hg AAR identification number (if already assigned), address, phone, fax, and e-mail (as well as similar information for the alternate Hg AAR, if applicable); the name of every owner and operator of the source and each Hg Budget unit at the source; and certification language and signature of the Hg AAR and alternate, if applicable.

In order to change the Hg AAR, alternate Hg AAR, or list of owners and operators, EPA is proposing that a new complete account certificate of representation be submitted. The EPA believes the Hg AAR requirements afford the regulated community with flexibility, while ensuring source accountability and simplifying the administration of the trading program. These submissions can be made electronically to EPA.

3. Permits

a. General Requirements. The EPA has attempted to minimize the number of new procedural requirements for Hg Budget permitting and to defer, whenever possible, to the permitting programs already established by the permitting authority. The proposed Hg Budget Trading Program regulations assume that the Hg Budget permit would be a portion of a federally enforceable permit issued to the Hg Budget source and administered through permitting vehicles such as operating permits programs established under title V of the CAA and 40 CFR part 70. The term “Hg Budget permit” throughout this preamble and the Hg Budget Trading Program regulations therefore refers to the Hg Budget Trading Program portion of the permit issued by the permitting authority to a Hg Budget source.

b. Hg Budget Permit Application Deadlines. The proposed rule sets the initial Hg Budget permit application deadlines for units in operation before January 1, 2007 so that the permits will be issued by January 1, 2010. January 1, 2010 is the beginning of the first control period for the Hg Budget Trading Program, and therefore also the date by which initial Hg Budget permits for existing units must be effective. Application submission deadlines are based on the permitting authority’s title V permitting regulations. For instance, if a permitting authority’s permitting regulations allowed 12 months for final action by the permitting authority on a permit application, the application deadline for units in operation before 2007 governed by the permitting rule would be January 1, 2009 (12 months prior to January 1, 2010). The same principle applies to Hg Budget units commencing operation on or after January 1, 2007, except that the application submission deadline is the later of the date the Hg Budget unit commences operation or January 1, 2010. The Hg Budget permit renewal application deadlines are the same as those that apply to permit renewal applications in general for sources under title V. For instance, if a permitting authority requires submission of a title V permit renewal application by a date which is 12 months in advance of a title V permit’s expiration, the same date would also apply to the Hg Budget permit application.

c. Hg Budget Trading Program Permit Application. The Hg Budget Trading Program requires that a Hg Budget permit application properly identify the source and include the standard requirements under proposed §60.4121. The Hg Budget Trading Program permit application should include all elements of the program (including the standard requirements). Such an approach allows the permitting authority to incorporate virtually all of the applicable Hg Budget Trading Program requirements into a Hg Budget permit by including as part of such permit the Hg Budget permit application submitted by the source. Directly incorporating the Hg Budget permit application into the Hg Budget permit and, thus, into the source’s operating permit or the overarching permit minimizes the administrative burden on the permitting authority of including the Hg Budget Trading Program applicable requirements.

d. Hg Budget Permit Issuance. As stated earlier, most of the procedures needed by a permitting authority to issue Hg Budget permits have already been established by the permitting authority through permitting vehicles such as operating permits programs under title V and 40 CFR part 70 or 71. Generally, the permits regulations promulgated by the permitting authority cover: permit application, permit application shield, permit duration, permit shield, permit issuance, permit revision and reopening, public participation, and State and EPA review. The proposed Hg Budget Trading Program permit regulations generally require use of the procedures under these other regulations and add some requirements such as Hg Budget permit application submission and renewal deadlines, Hg Budget permit application information requirements and permit content, and initial Hg Budget permit effective dates.

e. Hg Budget Permit Revisions. For revisions to the Hg Budget permit, the Hg Budget Trading Program again defers to the regulations addressing permits revisions promulgated by the permitting authority under title V and 40 CFR part 70 or 71. The proposal also provides that the allocation, transfer, or deduction of Hg allowances is automatically incorporated in the Hg Budget permit, and does not require a permit revision or reopening by the permitting authority. The Hg Budget permit must, however, expressly state that each source must hold enough Hg allowances to account for Hg emissions by the allowance transfer deadline for each control period. The EPA believes that requiring the permitting authority to revise or reopen a Hg Budget permit each time a Hg allowance allocation, transfer, or deduction is made would be burdensome and unnecessary.

4. Compliance Certification

Sections 60.4130 through 60.4131 of today's proposed Hg Budget Trading Rule sets forth the requirements concerning certification by the Hg AAR at the end of each control period that the Hg Budget units at the facility were in compliance with the emissions limitation and other requirements of the Hg Budget Trading Program. The Hg AAR must submit a compliance certification report for the Hg Budget units at each facility by March 1 following the control period, to both the permitting authority and the Administrator. This report must identify the Hg Budget units and the Hg Budget source, and include a compliance certification statement. The compliance certification statement must indicate whether all of the applicable requirements of the Hg Budget Trading Program, including the requirement to hold allowances greater than or equal to emissions and the requirement to monitor and report according to the provisions in §60.4106 of today's proposal, were met by the unit for the most recent control period. The report also allows the Hg AAR to specify which allowances (by serial number) should be deducted from the Hg Budget facility's compliance account.

5. Hg Allowance Allocations

Sections 60.4140 through 60.4142 of today's proposed model rule addresses the allocation of Hg allowances to Hg Budget units. Within each participating State, the Hg Budget Trading Program would establish a State trading program budget (i.e., a cap of annual Hg emissions for all units included in the program), which is the total number of Hg allowances that each State may allocate to its Hg Budget units for each control period. Section 60.4141 of today's proposed rule sets timing requirements for when the allocations should be completed by each State and submitted to EPA for inclusion into the MATS and provides an option for how States may allocate Hg allowances to the Hg Budget units. States have the flexibility to allocate their state budget to individual units however they choose.

a. State Trading Program Budget. The January 30, 2004 NPR proposed a formula for determining the total amount of emissions for the Budget Trading Program within a specific Sate for 2010, and, using that same mechanism, proposed the amount of emissions for the Program within each State for

2018. That formula is, in essence, the sum of the hypothetical allocations to each affected Utility Unit in the State, and that allocation, in turn, is based on the proportionate share of their baseline heat input to total heat input of all affected units. For purposes of this hypothetical allocation of the allowances, each unit's baseline heat input is adjusted to reflect the ranks of coal combusted by the unit during the baseline period. Adjustment factors of 1 for bituminous, 1.25 for subbituminous, and 3 for lignite coals were proposed in the NPR. These adjustment factors and the methodology for determining the state budgets are described in the memorandum entitled "Allocation Adjustment Factors for the Proposed Mercury Trading Rulemaking" in the docket. Alternatively, for purposes of this hypothetical allocation of allowances to Utility Units which where used to calculate the state budgets, EPA could have used the proposed MACT emission rate proposed in the NPR and the proportionate share of their baseline heat input to total heat input of all affected units. EPA solicits comment on this alternative to calculate State budgets. As noted above, the sum of the unit emission allowances in a State would comprise the State's emissions budget.

EPA proposes today that each State be required to submit a state plan under section 111(d) that assures that the State budget is met by capping emissions, through the allocation of allowances, from each affected Utility Unit. The State may allocate allowances to Utility Units in any manner it wishes, as long as the total number of allowances does not exceed the State budget. The State is not required to allocate allowances to each affected Utility Unit in accordance with the allocation option proposed in Section III.B.4.c below or the formula used to determine the State budget. Those unit-specific allocations are hypothetical and determined solely for accounting purposes.

EPA does, however, solicit comment on whether to require the State to allocate allowances to each affected Utility Unit in accordance with this hypothetical allocation. EPA recognizes that statements in the NPR may be read to propose a requirement that the State must allocate allowances to each affected Utility Unit in accordance with this hypothetical allocation. Today’s SNPR is proposing that the State may allocate allowances in accordance with its own methodology. EPA solicits comment on whether to authorize the State to have flexibility in the allowance allocation methodology, or whether to mandate that the State allocate allowances in accordance with the hypothetical allocation, depending on whether the State (i) authorizes its sources to participate in the interstate trading program, (ii) authorizes its sources to participate in only intra-state trading, or (iii) does not authorize its sources to trade allowances. Allocating allowances to sources using the hypothetical allocation methodology satisfies the requirements for States to meet the Standard of Performance required by section 111(d) because the hypothetical allocation is consistent with the State budgets and would ensure that the State budget and therefore the Standard of Performance is met. The docket for today's action includes a memorandum that describes in more detail the basis for EPA's proposed allocation methods.

Finally, it should be noted that the State may decide to allocate fewer total allowances to its sources than the amount of its budget.

b. Timing Requirements. Today's proposed rule sets minimum requirements for when a State would finalize Hg allowance allocations for each control period in the Hg Budget Trading Program and submit them to EPA for inclusion into the MATS. The proposed timing requirements ensure that all Hg Budget units would have sufficient time and the same minimum amount of time to plan for compliance for each control period and to trade Hg allowances. Finalizing allowances for less than three years in advance may restrict a Hg Budget unit’s ability to plan for compliance by creating uncertainty year to year about the amount of future allocations that the Hg Budget unit would receive. It would also prevent a Hg Budget unit from officially transferring future year allowances because the MATS only contains the very near term years’ allowances.

The timing requirements would also contribute to the efficient administration of the Hg Budget Trading Program. By establishing this schedule at the outset of the trading program, both the States and EPA would be able to develop internal procedures for effectively implementing the Hg allowance provisions of the trading program. This is particularly important for EPA with its role as administrator of the MATS for all participating States. The timing requirements would ensure that EPA would be able to record in the MATS the time sensitive Hg allowance allocations for the Hg Budget units in all participating States at the same time for each control period.

States may choose any of a number of options for the timing of issuing allowances, beyond the three year requirement, and that choice will interact to a great extent with the state’s choice of method for allocating allowances. The timing options generally range from: (1) year-by-year allocations, in which the Hg allowance allocations would be placed into the MATS on an annual basis for future control periods; (2) 5 to 10 year allocations where Hg allowance allocations would be periodically placed into the MATS for 5 to 10 consecutive control periods; and (3) a single, permanent allocation where the Hg allowance allocations would be set only once at the beginning of the trading program and recorded in the MATS for an extended, rolling block of time (e.g., a rolling 30-year period). These timing options can apply to both an auctioning and a permanent allocation mechanism.

Timing options which provide an opportunity to periodically update the allocation of Hg allowances to Hg budget units might have certain advantages. These advantages include that an allocation regime which is periodically updated would provide an opportunity to reallocate allowances based on changes in the electricity industry that may significantly affect the mix of electricity generators that produce electricity in the future. Depending on the formula that is used to allocate the allowances, trading programs that periodically update the allocations may provide an opportunity to reward energy efficiency improvements at specific Hg Budget units. They could also facilitate the introduction of more efficient, new generation.

Permanent allocations provide a long planning horizon for the Hg Budget units that receive an allocation. Permanent allocations would not create incentives for the owners or operators of high emitting units to continue operating only for the sake of continuing to receive allowances, but would result in retired units receiving allowances in perpetuity. Additionally, permanent allocations provide an incentive to improve a Hg Budget unit’s energy efficiency and require fewer resources to administer as compared to updating allocation systems. Nonetheless, these incentives would not affect the total emissions over time because the emissions are restricted by the cap, regardless of the allocation system. In a permanent allocation system, all allowances are allocated to Hg Budget units at the beginning of the trading program. New Hg Budget units that begin operations after the allocation of allowances would be required to obtain allowances from the market in order to comply with the trading program requirements (which may impede competition by hindering the entry of new units into the market), or there would need to be a new source set-aside that increased from year to year, coupled with a declining allocation to existing sources.

EPA is leaving the choice of timing of allocations largely up to the states, requiring only that they be finalized in the Hg Budget Trading Program and submitted to EPA for inclusion into the MATS three years in advance. This would ensure that all Hg Budget units would have sufficient time and the same minimum amount of time to plan for compliance for each control period and to trade Hg allowances. EPA is soliciting comments on this timing requirement.

A rolling annual updating system, determining allocations for a single control period six years in advance, has been developed in coordination with the example allocation approach provided in the subsequent section. The full example allocation approach is presented in the regulatory text. This example is offered as guidance and not as an implied requirement for the States to take part in the model trading program. At the start of the program, initial allocations would be made for the first five control periods of the program. Afterwards, annual updating would determine the allocations for the control period six years in advance. Consequently, units would always have in their accounts five years of allowances going forward, which would facilitate the operation of an efficient liquid allowance market and provide greater certainty to unit's compliance planning decisions, but might leave limited allowances in the near term for new units.

c. Options for Hg Allowance Allocation Methodology Recommendation. Allowance allocations decisions in a cap-and-trade program largely reflect distributional issues, as economic forces would be expected to result in economically efficient and environmentally similar outcomes (except in cases of market failure). Consequently, the EPA is proposing to give states the flexibility to choose an allocations method most appropriate for their particular circumstances.

States have many different possible options and combinations in the development of an allocations methodology. The key design differences are: 1) auction or free distribution of allowances; 2) permanent or updated allowances; and 3) allowances based on input-basis, output basis, or based on emission reductions. These options would differ in terms of the amount of allowances different sources receive, whether states generate revenue from the allowances, in their treatment of new coal-fired generation, in their difficulty of administration, and in their coordination with a safety valve mechanism.

Today’s proposal allows the state to decide whether it will allocate allowances to sources for free, or hold an auction to sell them to bidders. Auctions, at which allowances would be offered for sale, would ensure all parties access to allowances, and would be efficient since sources would bid their perceived value for allowances. The pool of allowances to be auctioned would be created by specified procedures, such as setting aside a fixed or incremented percentage of allocations each year, or auctioning all available allowances. For example, in the current Acid Rain Program, one percent of available allowances could be used for auctions. The auctions would be open to any person (including sources or third-party entities), who would submit bids according to auction procedures, a bidding schedule, a bidding means, and requirements for financial guarantees specified in the regulations. Winning bids, and required payments, for allowances would be determined in accordance with the regulations. Auctions could be held regularly for single compliance periods, or less frequently for a block of years at a time. An auctioning method of allocations would work well with a safety valve mechanism, where allocations would be reduced from future budgets to reflect allowances purchases via the safety-valve. Auctions would also eliminate any potential disadvantage to new units in the market for allowances. Responsibility for managing auctions would fall to the individual states, which would also have full discretion as to the use of auction revenues. EPA solicits comment on whether it would have authority to charge purchasers for allowances, in the case of Federal plans promulgated under 111(d)(2)(A) (if the State fails to submit a State plan under section 111(d)(1)) or 112(n)(1)(A) (if EPA concludes that this provision provides regulatory authority). Any amounts collected by EPA would be deposited in the general revenues under the Miscellaneous Receipts Act.

However, requiring controlled sources to both reduce emissions and pay for allowances for their remaining emissions could impose significant costs on the emitting sources. Allocating allowances for free could provide assistance to the entities incurring most of the costs of complying with the necessary mercury reductions, lessening the financial impact of the program on these sources. It would also give states the ability to determine who would be the initial allowance recipients.

If a state decided to allocate allowances for free, the state would need to decide between permanent and updating allocations. As mentioned above, permanent allocations provide a long planning horizon and would not create incentives for the owners or operators of high emitting units to continue operating. However, since they are based on a historic baseline period, permanent allocations would not reflect changes in the industry going forward and sources would continue to receive allowances even after they retire. Permanent allocations do not provide for allowances to new Hg Budget units that begin operations after the allocation of allowances and these units would be required to obtain allowances from the market in order to comply with the trading program requirements. This could inhibit the entry of new units into the market.

A new source set-aside (taking away allowances from existing sources) could be created if there is a desire to encourage new generation and concern about the availability of allowances on the market. Alternately, a portion of allowances could be set aside and sold through an auction to make these allowances accessible. A drawback of these approaches is that it can be difficult to forecast the amount of the new sources over time and thus the appropriate size of the set-aside. Allowance requests resulting from the entry of numerous new sources could, in time, exceed the amount of allowances set aside.

Updating allocations provide an opportunity to reallocate allowances based on changes in the industry that may significantly affect the mix of generators that produce electricity in the future. By updating allocations, states would periodically review their basis for allocations and reallocate allowances to sources. Updating would include new generating units as they enter service and develop baseline data (input or output) for calculation of allocations. However, updating might also provide a subsidy to all generation, rewarding units for generating by providing them allocations based on generation (either input or output). Slightly different incentives would be provided depending on whether the updating is input or output-based. This may result in a slight distortion in the price of electricity, and might also encourage older units not to retire, although the total number of allowances (and thus emissions) are capped either way. Any such effects would be less pronounced with the lengthening of the period of time between the base-line and the actual receipt of the allocations.

Updating may be done annually for a period in advance, or periodically, with updates for several years at a time. The less frequent the updating, the more this program becomes like a permanent allocation. Updating also works well with a safety valve mechanism, as it provides the opportunity to reduce allocations from a future budget before they are allocated to reflect allowances purchases via the safety-valve mechanism.

This SNPR proposes to allow states to decide the basis for their allocation decisions, whether allocating through a permanent or updating method. Generally, allocations have considered using a baseline heat input (mmBtu of coal burned) or baseline generating output (kWh). In a permanent allocation, this decision has consequences that are purely distributional, with the output method favoring more efficient existing plants. If states want to have allocations reflect the difficulty of controlling for mercury, they might consider multiplying baseline data by ratios based on coal type (1.0 for bituminous, 1.25 for subbituminous, 3.0 for lignite for a heat input basis), similar to the methodology proposed in the NPR for determining state budgets.

Finally, states may consider hybrid systems, combining various aspects of the general approaches outlined above, in their choice of plan. In summary, the EPA is providing states with the flexibility to develop a plan which is best suited to their circumstances.

Included below is an example (offered for informational guidance) of an allocations methodology that includes allowances for new generation, addresses the safety-valve mechanism, and is administratively straightforward. The method involves input-based allocations for existing coal units (with different ratios based on coal-type), with updating to take into account new coal generation on a modified output basis (without coal-type ratios). The method described for allocating to existing sources is also consistent with the hypothetical allocations relied on for determining the state budgets and described in the January 30, 2004 NPR and the memorandum entitled “Allocation Adjustment Factors for the Proposed Mercury Trading Rulemaking” in the docket.

Initial allocations for existing sources could be made for the first five control periods at the start of the program, on the basis of heat input and with different ratios based on coal-type. After the first 5 years, the budget will be distributed on an annual basis, taking into account data from new units.

As new units enter into service and establish a baseline, they begin to pick up allowances in relation to their generation. Allowances allocated to existing plants slowly decline as their share of total heat input decreases with the entry of new plants. In this EPA example methodology, existing units as a group would not update their heat input numbers. This would eliminate the potential generation subsidy (and efficiency loss) as well as an incentive for less efficient (and higher ratio) units to generate more. This methodology would also be easier to implement since it would not require the updating of existing units' baseline data. However, retiring units would continue to receive allowances indefinitely.

Through this EPA example methodology, new units as a group would only update their heat input numbers once - in the initial baseline period when they start operating. This would eliminate any potential generation subsidy and be easier to implement, since it would not require the collection and processing of data needed for regular updating.

EPA believes that allocating based on heat input data (rather than output data) for existing units is desirable because accurate protocols exist for monitoring this data and reporting it to EPA and several years of certified data are available for most of the affected sources. However, allocating on the basis of input for new sources would serve to subsidize less-efficient new generation. For a given generation capacity, the most efficient unit would have the lowest fuel input or heat input. Allocating to new units based on heat input may encourage the building of less efficient units since they would get more allowances than a efficient, lower heat input unit. The modified output approach, as described below, would encourage new clean generation and would not reward inefficient or high-emission new units.

Allowances would be allocated to new units on a modified output basis. Once new units have an adequate operating baseline (in the EPA example methodology, EPA proposes taking the average of the highest three years out of five years of operations), the total annual heat input of the affected units would be updated by adding the calculated new unit modified-output to the original existing coal-type-adjusted unit heat input. For purposes of including data from new units in the updated allocation calculation, new units would calculate their heat input by multiplying their gross output by a heat rate conversion factor of 8,000 btu/kWh. The 8,000 btu/kWh conversion factor was chosen as a mid-point between expected heat-rates for new pulverized coal plants and new IGCC coal plants as assumed in EPA's economic modeling analysis (IPM documentation at http://www.epa.gov/airmarkets/epa-ipm/attachment-h.pdf). This would create level benefits for new coal units based on their output and provide incentives for efficiency (rather than favoring higher heat-rate new units). A higher heat-rate conversion number would provide more incentive for new generation, and we are asking for comment as to the appropriate number. To calculate their modified output number, new coal-fired cogeneration units would add together their electric output and half of their equivalent electrical output energy in the unit's process steam and multiply this total by 8,000 btu/kWh. Allocations would be allocated to all units in proportion to their share of the updated, adjusted total heat input.

New units that have entered service, but have not yet established a baseline output and have not yet started receiving allowances through the update, could receive allowances each year from a new source set-aside. In the example methodology described in the model rule, EPA has proposed a new source set-aside representing two percent of the State's mercury trading program budget.

Allowances in the new source set-aside could be distributed in a number of different ways. For example, as described in today's model rule, the new source allowances could be distributed based on a unit's utilization/output and the unit's mercury emission NSPS rate limitation presented in the January 30, 2004 NPR. Because the proposed NSPS rates vary across coal types, this allocation method could provide new coal plant investors with varying incentives depending upon the coal type. While this set-aside would help new sources relative to no set-aside, because the demand for allowances for future sources is unknown, it is difficult to know beforehand what should be the appropriate size of the set-aside pool.

EPA is taking comment on a number of alternatives for distributing the new source set-aside in the example methodology. For example, a single emissions rate for all new coal plants may be used together with utilization/output levels to calculate allowance allocations for new coal units before they begin receiving allowances through the update. Alternatively, the lower of the NSPS rates for the respective coal types and a rate representing the proposed mercury cap in 2018 divided by projected 2018 total affected unit generation may be used to calculate allowance allocations for new coal units before they begin receiving allowances through the update. This alternative would ensure that new sources should receive allowances at the same rate as that applied to existing sources and no greater than their proposed NSPS. We ask for comment on these various proposals, and for any other alternatives commenters may wish to raise.

In today's proposed example allocation methodology, these new units would be granted allowances from the set-aside for the control period, initially based on the unit's full utilization rates. At the end of the year, the actual allowance allocation will be adjusted to account for actual unit utilization/output, and excess allowances will be returned and redistributed, first taking into account new unit requests that were not able to be addressed. Any subsequent unused set-aside allowances would be redistributed to existing units based on their existing allocations. An alternate method for allocating these allowances would provide new sources with allowances at the end of the relevant control period, based on their actual utilization. This would eliminate the need for returning and redistributing allowances, but would also deprive sources of the ability to trade those allowances during the course of the year. EPA is soliciting comment on the timing and method of allocating allowances from the set aside in the example methodology.

While EPA recognizes States' flexibility in choosing their allocations method and is proposing that States be allowed to determine their own method for allocating allowances to sources in their state, EPA is also asking for comment on all aspects of this example allocations proposal.

6. Safety Valve Provision

In the January 30, 2004 NPR, EPA is proposing a safety valve provision that sets the maximum cost purchasers must pay for Hg emissions allowances. This provision addresses some of the uncertainty associated with the cost of Hg control.

Under the safety valve mechanism, the price of allowances is effectively (although not legally) capped. Sources may purchase allowances from subsequent year budgets at the safety-valve price at any time. However, it is unlikely they would do so unless the market allowance price exceeded the safety valve price. EPA proposes a price of $2,187.50 for a Hg allowance (covering one ounce) and this price will be annually adjusted for inflation. The permitting authority will deduct corresponding allowances from future allowance budgets. EPA solicits comment on whether it would have authority to charge purchasers this amount for allowances, in the case of Federal plans promulgated under 111(d)(2)(A) (if the State fails to submit a State plan under section 111(d)(1)) or 112(n)(1)(A) (if EPA concludes that this provision provides regulatory authority). Any amounts collected by EPA would be deposited in the general revenues under the Miscellaneous Receipts Act.

The purpose of this provision is to minimize unanticipated market volatility and provide more market information that industry can rely upon for compliance decisions. The safety valve mechanism ensures the cost of control does not exceed a certain level, but also ensures that emissions reductions are achieved. The future year cap is reduced by the borrowed amount, ensuring the integrity of the caps.

The safety valve mechanism would need to be incorporated into a state’s chosen allocations methodology to ensure the availability of un-distributed allowances from which purchasers could borrow. Making allowances available through the safety valve without taking them away from future budgets would undermine the integrity of the cap. The safety valve mechanism would be easiest to incorporate into a system where allowances are periodically auctioned or updated because at least some portion of the State budgets would not have been previously allocated to individual units (which might not be the case in a permanent, historically based allocation method). Within EPA’s example allocations methodology, the safety valve allowances borrowed from future budgets would be taken out of the pool of allowances available for units that have been generating for at least five years (not from the new source set aside) in the subsequent updating calculation of allocations. Under this allocation methodology, the future budget for the State would be lowered by the amount borrowed through the safety valve mechanism for the control period six years in advance.

We ask for comment on the need for a safety valve and the viability of our example approach, and solicit suggestions for other viable approaches.

7. Hg Allowance Tracking System

Sections 60.4150 through 60.4157 of today's proposed trading rule covers the mercury allowance tracking system (MATS). The proposed rule is intended to be reasonably consistent with the allowance tracking systems developed for the NOx SIP Call and Acid Rain Program. Such consistency would help to allow the integration of the a mercury trading program with the existing trading programs under the NOx SIP Call and Acid Rain Program and possible other NOx and SO_2 trading programs (under the IAQR) in the future. It would also save industry and government the time and resources necessary to develop new tracking systems.

The MATS would be an automated system used to track Hg allowances held by Hg Budget units under the Hg Budget Trading Program, as well as those allowances held by other organizations or individuals. Specifically, the MATS would track the allocation of all Hg allowances, holdings of Hg allowances in accounts, deduction of Hg allowances for compliance purposes, and transfers between accounts. The primary role of MATS is to provide an efficient, automated means of monitoring compliance with the Hg Budget Trading

Program. The MATS would also provide the allowance market with a record of ownership of allowances, dates of allowance transfers, buyer and seller information, and the serial numbers of allowances transferred. Although today's proposal assigns each allowance a unique serial number, EPA requests comments on the necessity of serial numbers and on whether the administrative burden to allowance holders and EPA of tracking and reporting serial numbers outweighs the benefits of serial numbers for tax and accounting purposes.

The EPA is proposing that MATS contain two primary types of accounts: compliance accounts and general accounts. Compliance accounts are created for each Hg Budget source with one or more Hg Budget units, upon receipt of the account certificate of representation form. General accounts are created for any organization or individual upon receipt of a general account information form.

a. Compliance Accounts. As part of the implementation of the Hg Budget Trading Program, EPA is proposing to establish compliance accounts for each Hg Budget source upon receipt of the account certificate of representation form. These accounts would be identified by a 12-digit account number incorporating the plant's Office of Regulatory Information System's (ORIS) code or facility identification number. Allocations for the first six years (2010 2015), as prescribed by each State, would be transferred into these compliance accounts prior to the first control period in 2010. Prior to the second control period, in 2011, and each year thereafter, allocations for the new sixth year, as prescribed by each State, would be transferred into each compliance account (e.g., in 2011, year 2016 Hg allowances would be allocated). As for the deadline for transferring Hg allowances to cover emissions in the control period (i.e., the Hg allowance transfer deadline of midnight on March 1 following the control period), each compliance account must hold sufficient Hg allowances to cover the Hg Budget source’s Hg emissions for the prior year’s control period. Utility companies may use general accounts to hold surplus allowances (as has been done in the Acid Rain Program) for trading and banking. Brokers and other entities use general accounts to hold allowances that are intended to be traded.

b. Compliance. Once a control period has ended, Hg Budget source would have a window of opportunity (i.e., until the Hg allowance transfer deadline of midnight on March 1 following the control period) to evaluate their reported emissions and obtain any additional Hg allowances (including safety valve allowances) they may need to cover the emissions during the year. On March 1 following each control period, the Hg AAR must also submit a compliance certification report for each Hg Budget source. Should the Hg Budget source not obtain sufficient Hg allowances to offset emissions for the season, three Hg allowances for each ounce of excess emissions would be deducted from the source's compliance account for the following control period. EPA believes that it is important to set up this automatic offset deduction because it ensures that non-compliance with the Hg emission limitations of this part is a more expensive option than controlling emissions. EPA required the same offset deduction of three to one in the NOx SIP call, and is taking comment on the use of the same ratio is today's proposed rule. The automatic offset provisions do not limit the ability of the permitting authority or EPA to take enforcement action under State law or the CAA.

c. General Accounts. Today's proposal allows any person or group to open a general account in MATS. These accounts would be identified by the "9999" that would compose the first four digits of the MATS account number. Unlike compliance accounts, general accounts cannot be used for compliance but can be used for holding or trading Hg allowances (e.g., by Hg allowance brokers or owners of multiple Hg Budget units or sources). General accounts are currently used for both SO_2 allowances in the Acid Rain Program and NOx allowances in the NOx Budget Trading Program.

To open a general account, a person or group must complete the standard general account information form, which is similar to the account certificate of representation that precedes the opening of a compliance account and any overdraft account. The form would include: the Hg AAR name, phone, fax, and e-mail (as well as similar information for the Alternate Hg AAR, if applicable); Hg AAR mailing address; the names of all parties with an ownership interest with the respect to the Hg allowances in the account; and certification language and signatures of the Hg AAR and alternate, if applicable.

Revisions to information regarding an existing general account are made by submitting a new general account information form which would be sent to EPA in all cases, whether the form is used to open a new account, or revise information on an existing one. The EPA would notify the Hg AAR cited on the application of the establishment of his or her account in the MATS or of the registration of requested changes.

8. Banking

Banking is the retention of unused allowances from one control period for use in a later control period. Banking allows sources to create reductions beyond required levels and “bank” the unused allowances for use later. Generally speaking, banking has several advantages: it can encourage earlier or greater reductions than are required from sources, stimulate the market and encourage efficiency, and provide flexibility in achieving emissions reduction goals (e.g., by allowing for periodic increased generation activity that may occur in response to interruptions of power supply from non-Hg emitting sources). In addition, a banked allowance is one less ounce of pollutant emitted in a given year. On the other hand, banking may result in banked allowances being used to allow emissions in a given year to exceed a State’s trading program budget.

EPA is proposing that banking of allowances after the start of the Hg trading program be allowed with no restriction. Banking after a program starts and the budget is imposed allows sources to retain any allowances not surrendered for compliance at the end of each control period. Once the trading program budget is in place, sources may over-control for one or more seasons and withdraw from the bank in a later season. This type of banking provides the general advantages as described above (encourages early reductions, stimulates the market, and provides flexibility to sources), while also potentially causing Hg emissions in some control periods to be greater than the allowances allocated for those seasons.

9. Allowance Transfers

The EPA is proposing that once a Hg AAR is appointed and an account is established in the MATS, Hg allowances can be transferred to or from the accounts with the submission of an allowance transfer form to EPA. Transfers can occur between any accounts at any time of year with one exception: transfers of current and past year allowances into and out of compliance accounts are prohibited after the Hg allowance transfer deadline (March 1 following each control period) until EPA completes the annual reconciliation process by deducting the necessary allowances.

There would be one standard Hg allowance transfer form. This form would be submitted to the EPA in all cases. This form can be submitted electronically. The form would include: the transferror and transferee MATS account numbers; the transferror’s printed name, phone number, signature, and date of signature; and a list of allowances to be transferred, by serial number.

10. Emissions Monitoring and Reporting

Monitoring and reporting of an affected source’s emissions are integral parts of any cap-and-trade program.

Consistent and accurate measurement of emissions ensures that each allowance actually represents one ounce of emissions and that one ounce of reported emissions from one source is equivalent to one ounce of reported emissions from another source. This establishes the integrity of each allowance and instills confidence in the market mechanisms that are designed to provide sources with flexibility in achieving compliance.

Given the variability in the type, operation, and fuel mix of sources in the proposed Hg cap-and-trade program, EPA believes that emissions must be monitored continuously in order to ensure the precision, reliability, accuracy, and timeliness of emissions data that support the cap-and-trade program. The EPA is proposing to allow two methodologies for continuously monitoring mercury emissions: (1) mercury continuous emission monitoring systems (CEMS); and (2) sorbent trap monitoring systems. Based on preliminary evaluations, EPA believes it is reasonable to expect that both technologies will be well-developed by the time a mercury emissions trading program is implemented.

The EPA is proposing, and solicits comment on, two alternative approaches for the continuous monitoring of Hg emissions, as described below and discussed in more detail in section II.B of the Appendix A to this preamble.

In the first alternative, most sources would be required to use CEMS, with low-emitting sources having Hg emissions at or below a specified threshold value being allowed to use sorbent trap monitoring systems. The proposed threshold value is 9 lb (144 ounces) of Hg emissions per year (based on a 3-year average), although EPA is taking comment on three alternative thresholds of 29, 46, and 76 lb/yr.

Alternative 1 represents EPA's traditional approach to implementing an emissions trading program. The Acid Rain Program, as established by Congress in the 1990 Amendments to the Act, required the use of CEMS or an alternative monitoring system that is demonstrated to provide information with the same precision, reliability, accuracy, and timeliness as a CEMS. In implementing that program, as well as the NO_x Budget Trading Program, EPA has allowed alternatives to CEMS only where the emissions contributed by a particular category of affected sources are at a low level in comparison to the emissions cap for the program, or where an alternative monitoring system has been demonstrated, according to specified criteria, to meet the standard Congress set.

In the second alternative, all sources would be allowed to use either CEMS or sorbent trap monitoring systems. Those sources whose Hg emissions are above the specified emission threshold would choose between CEMS and sorbent trap monitoring with quality assurance (QA) procedures comparable to a CEMS, to ensure the accuracy of measurements made for program compliance.

The QA requirements for the Acid Rain Program mandated by Congress under the Act have been codified in Appendices A and B of the Acid Rain Continuous Monitoring Regulation (40 CFR part 75). Part 75 specifies that each CEMS must undergo rigorous initial certification testing and periodic quality assurance testing thereafter, including the use of relative accuracy test audits (RATAs). A standard set of data validation rules and substitute data procedures apply to all of the CEMS. These stringent requirements provide an accurate accounting of the mass emissions from each affected source, and provide prompt feedback if the monitoring system is not operating properly. This ensures a level playing field among the regulated sources with accurate accounting for every ton of emissions, which inspires confidence in the trading of allowances.

For the purposes of a Hg emissions trading program, EPA believes that the same high level of QA should be required for both CEMS and sorbent trap monitoring systems, particularly for the higher-emitting sources that are responsible for the bulk of the Hg emissions. To achieve this, proposed Alternative 2 would require that for the sources with Hg emissions above the specified threshold value, a minimum of one substantive QA test of each monitoring system would be performed each quarter. A quarterly linearity check of each CEMS would be required, as well as an annual RATA. For the sorbent trap systems, which cannot accept calibration gas and, therefore, cannot be tested for linearity, an annual RATA and three quarterly 3-run relative accuracy audits (RAAs) would be required. This general approach to quality-assurance of continuous monitoring systems is consistent with both Part 75, Appendix B, and with Appendix F to 40 CFR part 60. However, the EPA is willing to consider replacing the RAA requirement with another type of substantive quarterly QA test, if commenters who favor the use of sorbent trap systems are aware of, and can provide details of, any such test or procedure.

For affected sources with Hg emissions at or below the specified threshold value, Alternative 2 would still require quarterly linearity checks and annual RATA for Hg CEMS, but for the sorbent trap monitoring systems, only an annual RATA would be required – the quarterly RAA requirement would be dropped.

The use of sorbent trap monitoring systems as an alternative to CEMS for monitoring Hg emissions has been proposed by EPA for determining compliance under either of the alternative non-trading approaches in the NPR for regulating Hg emissions from coal-fired utility units. The proposed QA requirements for CEMS and sorbent trap systems in Alternative 2 above are more stringent than the proposed QA requirements for monitoring compliance with the non-trading compliance alternatives in the NPR. This difference in the level of required QA reflects a fundamental difference in the purposes of monitoring for an emissions trading program compared to monitoring for an emissions limitation program. Monitoring for the trading program requires frequent assessments of the accuracy of the measurement method, because each unit of emissions measured is tied to an allowance which is tradeable at any time throughout the year. It is important for source owners to know how much “money is in the bank” at any given time. This need was recognized by Congress when it required the use of CEMS in the Acid Rain Program, which serves as the model for both the NO_x Budget Trading program and the proposed Hg trading program. Monitoring for a non-trading standard may not require such frequent assessment of monitoring system performance, because the compliance determination is done on an annual or semi-annual basis, using data that has been collected over a long period of time, and is designed only to determine if the emission limit has been met. The amount that a unit is below or above a non-trading standard does not translate into a tradeable commodity which can be bought or sold throughout the year.

Consistent with the current requirements in Part 75 for the Acid Rain and the NOx SIP Call programs, the proposed rule would allow sources, under Section 60.4175 of Subpart HHHH of Part 60 and under Section 75.80(h) of Subpart I of Part 75, to petition for an alternative to any of the specified monitoring requirements in the rule. This provision provides sources with the flexibility to petition to use an alternative monitoring system under Subpart E of Part 75 or variations of the proposed ones as long as the requirements of existing Section 75.66 are met.   Proposed amendments to 40 CFR part 75 (Part 75), as summarized in Appendix A to this preamble, set forth the specific monitoring and reporting requirements for Hg mass emissions and include the additional provisions necessary for a cap and trade program. Part 75 is used in both the Acid Rain and the NO_x Budget Trading programs, and most sources affected by this rulemaking are already meeting the requirements of Part 75 for one or both of those programs.

In order to ensure program integrity, EPA proposes to require states to include year round Part 75 monitoring and reporting for Hg for all sources. Proposed deadlines for monitor certification and other details are specified in the model trading rule. EPA believes that emissions will then be accurately and consistently monitored and reported from unit to unit and from State to State.

Part 75 also specifies reporting requirements. As is currently required for sources subject to both the Acid Rain program and the NO_x Budget Trading program, EPA proposes to require year round reporting of emissions and monitoring data from each unit at each affected facility. As required for the Acid Rain program and the NO_x Budget Trading program, this data would be provided to EPA on a quarterly basis in a format specified by the Agency and submitted to EPA electronically using EPA provided software. We have found this centralized reporting requirement necessary to ensure consistent review, checking, and posting of the emissions and monitoring data at all affected sources, which contributes to the integrity and efficiency of the trading program.

11. Program Audits

The EPA would publish a report annually, commencing after the first year of compliance, that would contain, for each Hg budget unit, the control period Hg emissions and the number of Hg allowances deducted for all reasons. This would be done in order for States to track emissions and Hg allowance transaction activity in neighboring States.

12. Administration of Program

The administration of this program would be somewhat different from the administration of a typical State program. This is both because of the trading aspects of the program and because of the national nature of the trading program. In order for the market forces underlying the trading program to work, the sources that participate in the trading program must have confidence in the market. This confidence stems from a number of factors including: a belief that all of the sources included in the program are following the same set of rules, and a belief that trades can be made easily, quickly, and with a great deal of confidence that they will not be altered or denied. Several things can help to foster these beliefs and thus a confidence in the market. The first is to start with a consistent set of rules. This can be done by developing a model rule and having all States and sources that participate in the trading program abide by the ground rules set forth in the model rule. The second is to implement those rules in a consistent and efficient manner. Because of the multi-state nature of the program, it would be difficult for any individual State to do that by itself. Therefore, EPA is proposing that this program be implemented jointly by EPA and the States that choose to participate in the program. As part of this joint implementation, States would have specific roles, EPA would have specific roles, and there would be roles that States and EPA would perform jointly.

States would be responsible for developing and promulgating rules consistent with the model rule and for submitting those rules as part of the State plan States would also be responsible for identifying sources subject to the rule, issuing new or revised permits as appropriate, and determining Hg allowance allocations. In addition, they would be responsible for receiving, reviewing and, where appropriate, approving most monitoring plans and monitoring certification applications, observing monitor certification and ongoing quality assurance testing and performing audits. The final primary area of State responsibility would be enforcement of the trading program. If violations occur, the State would take the lead in pursuing enforcement action. However, once the rules are approved as part of the State plan , they would also become federally enforceable, and EPA could also take enforcement action.

The EPA would have two primary roles in administration of the program. The first role would be EPA's traditional role in the approval and oversight of the State plan . The second would be a more unique role for EPA, in which EPA would administer significant portions of the program.

In EPA's traditional role in the State plan process, EPA would be responsible for taking action to approve or disapprove the State plan revision once it was submitted to EPA. Once the State plan revision was approved, EPA would play an oversight role in ensuring that the State plan was properly implemented. This oversight role might include audits of the State program, or taking enforcement action, if EPA believed that sources were violating the State plan .

In EPA's more unique role as administrator of portions of the program, EPA would run both the system to receive, store program related data, and verify total emissions for the control period, and the MATS. The EPA would use the same system that it is currently using to track emissions data from the Acid Rain Program and the NO_x SIP Call. There are a number of advantages to the sources, States, and EPA to using this existing system. Since many units are already reporting to the system for purposes of the Acid Rain Program and NO_x Budget Trading Program, using this existing system will represent little change for many units and EPA.

This will help to reduce administrative costs for both units and EPA and will help to minimize startup problems associated with a new program. It also means that each State will not need to develop, maintain and operate such a system.

In addition to receiving the emissions data, quality assuring it, and providing reports to both States and units about the emissions data, EPA would have several other responsibilities as the administrator of the data system. The EPA would be involved in approval of any petitions for alternatives to the allowable monitoring methods. The EPA would also be involved in providing units and States assistance in using the data system. This assistance may include: answering individual questions from units and States, providing guidance documents and training for units and States, and providing software to assist in the submittal of program related data.

As the administrator of MATS, EPA would be responsible for receiving applications for Hg AARs, tracking all official transfers of Hg allowances, and using the end of control season emissions data and Hg allowance data to determine compliance for the control season. In order for EPA to play this role, each State would have to provide EPA with its Hg allowance allocations consistent with a prescribed schedule and format. The Hg AARs for individual sources would have to provide EPA with information about all official Hg allowance transfers in a prescribed format. The Hg AAR's would also have to provide EPA with an end of control period compliance certification. At the end of the control period, EPA would use all of this data to determine how many Hg allowances should be deducted from each source's compliance account. In the event that there were not enough Hg allowances to cover a source's emissions for a control period, EPA would notify the State and would automatically deduct Hg allowances for the next control period according to the emissions offset provisions set forth in the proposed trading rule.

The main joint role that EPA and States would have is for the approval of alternatives to the allowable monitoring methods. This role is more fully discussed in Section V.C.9 of the preamble on monitoring.

C. Approvability of Trading Rule within a State Plan

1. Necessary Common Components of Trading Rule

The EPA intends to approve the portion of any State's plan submission that adopts the model rule, provided: (1) the State has the legal authority to adopt the model rule and implement its responsibilities under the model rule, and (2) the state plan submission accurately reflects the Hg reductions to be expected from the State’s adoption of the model rule. Provided a State meets these two criteria, then EPA intends to approve the model rule portion of the State’s plan submission.

State adoption of the model rule would ensure consistency in certain key operational elements of the program among participating States, while allowing each State flexibility in other important program elements. Uniformity of the key operational elements is necessary to ensure a viable and efficient trading program with low transaction costs and minimum administrative costs for sources, States, and EPA. Consistency in areas such as allowance management, compliance, penalties, banking, emissions monitoring and reporting and accountability are essential.

The EPA’s intent in issuing a model rule for the Hg Budget Trading Program is to provide States with a model program that serves as an approvable strategy for achieving the required reductions. States choosing to participate in the program will be responsible for adopting State regulations to support the Hg Budget Trading Program, and submitting those rules as part of the state plan. There are two alternatives for a State to use in joining the Hg Budget Trading Program: incorporate 40 CFR part 60, subpart HHHH by reference into the State's regulations or adopt State regulations that mirror 40 CFR part 60, subpart HHHH, but for the potential variations described below.

Some variations and omissions from the model rule are acceptable in a State rule. This approach provides States flexibility while still ensuring the environmental results and administrative feasibility of the program. EPA proposes that in order for a state plan to be approved for State participation in the Hg Budget Trading Program, the State rule should not deviate from the model rule except in the area of allowance allocation methodology. Allowances allocation methodology includes any updating system and any methodology for allocating to new units.

State plans incorporating a trading program that is not approved for inclusion in the Hg Budget Trading Program may still be acceptable for purposes of achieving some or all of a State's obligations provided the general criteria. However, only States participating in the Hg Budget Trading Program would be included in EPA's tracking systems for Hg emissions and allowances used to administer the multi-state trading program.

In terms of allocations, States must include an allocation section in their rule, conform to the timing requirements for submission of allocations to EPA that are described in this preamble, and allocate an amount of allowances that does not exceed their State trading program budget. However, States may allocate allowances to budget sources according to whatever methodology they choose. The EPA has included an optional allocation methodology but States are free to allocate as they see fit within the bounds specified above, and still receive state plan approval for purposes of the Hg Budget Trading Program.

2. Revisions to Regulations

Today's action proposes revisions to the regulatory provisions in 40 CFR 60.21 and 60.24 to make clear that a standard of performance for existing sources under section 111(d) may include an allowance program of the type described today.

D. Co-Proposal of Cap-and Trade Program under CAA Section 112(n)

In the January 30, 2004 NPR, EPA has taken comment on a proposal to promulgate, under section 112(n)(1)(A), a cap-and-trade program for Hg from coal-fired Utility Units. The model rule proposed here for Section 111 would serve as the Federal trading rule if the EPA decides to promulgate a cap-and-trade program under CAA Section 112. In general, a trading program under Section 112(n)(1)(A) would be federally implemented with the EPA serving as the permitting authority, unlike Section 111 which has the States serving as the permitting authority. Today’s proposed model trading rule would be implemented the same for each state with no opportunity for flexibility for certain operational aspects of the trading program (i.e., allocation methodologies) among different States.

In implementing this program under section 112(n), EPA would adopt caps and establish deadlines similar to those published on January 30, 2004 under the section 111 cap and trade proposal. EPA would allocate these cap levels of annual emissions across coal-fired units using the proposed MACT emission limits presented in the NPR and the proportionate share of their baseline heat input to total heat input of all affected units. Alternatively, EPA could allocate these cap levels of annual emissions across all coal-fired Utility Units in accordance with the allocation methodology identified in today’s section 111 cap-and-trade proposal. EPA is soliciting comment on this alternative proposal.

For new units under a section 112 trading program, EPA is proposing they would be covered under the cap and would use a similar new unit set-aside in combination with an updating allocation system discussed under today’s section 111 proposal and provided in today’s regulatory text. Since no NSPS would be required under section 112, EPA would also make adjustments to its new unit allocation methodology proposed under section 111. EPA is proposing that initially the new unit would receive allocation based on their utilization/output and MACT rate limitations proposed in the NPR, until the new unit establishes a baseline output and receives allowances through the updating mechanism.

EPA is also proposing the use of a safety valve of $2,187.50 per Hg allowance (covering one ounce) under a section 112 trading program. The safety valve would be implemented similarly to today's section 111 trading program, except that the funds would be collected to the U.S. Treasury and not the State. EPA is taking comment on the implementation of a safety valve under section 112 and EPA is taking comment on whether it has authority under a 112(n)(1)(A) to collect payment from the purchaser.

EPA would also require part 75 monitoring requirements identified in today's section 111 proposal. In addition, a trading program under section 112 would provide for administrative appeals at EPA of final agency actions under the program.

IV. Statutory and Executive Order Reviews

In the NPR, EPA provided its review of the statutory and executive order requirements under this rulemaking.

These orders include: (1) Executive Order 12866: Regulatory Planning and Review, (2) Paperwork Reduction Act, (3) Regulatory Flexibility Act, (4) Unfunded Mandates Reform Act of 1995, (5) Executive Order 13132: Federalism, (6) Executive Order 13175: Consultation and Coordination with Indian Tribal Governments, (7) Executive Order 13045: Protection of Children from Environmental Health and Safety Risks, (8) Executive Oder 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use, and (9) National Technology Transfer and Advancement Act.

The following provides a summary of EPA's conclusions. For Executive Order 12866: Regulatory Planning and Review, EPA concluded the proposed rule was an economically "significant regulatory action" because the annual cost may exceed $100 million dollars. For the Paperwork Reduction Act, EPA provided an analysis of the information collection requirements required by the proposed rule. For the Regulatory Flexibility Act, EPA determined that the proposed rule will not have a significant impact on a substantial number of small entities. For the Unfunded Mandates Reform Act of 1995, EPA determined that the proposed rule contains a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in aggregate, or the private sector in any one year; and accordingly, EPA prepared a written statement under section 202 of the UMRA which is summarized in the NPR. For Executive Order 13132 and Executive Order 13175, EPA concluded that the proposed rule did not have federalism or tribal implications. For Executive Order 1304, EPA concluded the strategies proposed in the NPR will further improve air quality and will further improve children’s health. For Executive Oder 13211, EPA concluded that the proposed rule was significant because the proposal had a greater than a 1% impact on the cost of electricity production and because it results in the retirement of greater than 500 MW of coal-fired generation. In this SNPR, EPA is not making changes to these statutory and executive order conclusions.

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Pub. L. No. 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action proposes a model cap-and-trade program including environmental monitoring and measurement provisions that States are encouraged to adopt as part of their SIPs. If States adopt those provisions, sources that participate in the cap-and-trade program would be required to meet the applicable monitoring requirements of part 75. Part 75 incorporates a number of voluntary consensus standards.

Further discussion of how EPA intends to adhere to the requirements of the NTTAA in this rulemaking is containing in a technical support document that will be placed in the e-docket by the date of publication of this notice.

List of Subjects

40 CFR Part 60

Administrative practice and procedure, Air pollution control, Environmental protection, Reporting and Recordkeeping requirements.

40 CFR Part 72 and 75

Air pollution control, carbon dioxide, Continuous emissions monitors, Electric utilities, Environmental protection, Incorporation by reference, Mercury, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur dioxide.

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Dated:

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Michael O. Leavitt
Administrator

Appendix A to the Preamble ---Proposed Changes to Parts 72 and 75

I. Summary of Proposed Changes

As required by Title IV of the Act, Part 75 contains requirements for continuously monitoring and reporting SO_2 mass emissions, CO_2 mass emissions, NO_x emission rate and heat input rate under the Acid Rain Program. Subpart H of Part 75 also provides NO_x mass emission monitoring guidelines that may be adopted for use under a State or Federal NO_x mass emission reduction program. (Subpart H has in fact been adopted under the NO_x Budget Trading Program established in response to the 1998 State Implementation Plan (SIP) Call by the Administrator.) However, Part 75 does not currently contain requirements for monitoring or reporting mercury mass emissions.

Today's proposed rule would add Subpart I (§§75.80 through 75.84) to Part 75. For mercury mass emissions monitoring, Subpart I would serve the same purpose as Subpart H does for NO_x mass emissions monitoring, in that it would provide the monitoring guidelines for a multi-state trading program. Subpart I would provide standard procedures for obtaining precise, reliable, accessible, and timely mercury mass emissions data under such a program.

If the proposed Subpart I monitoring provisions were to be adopted as part of a mercury mass emission reduction program, States would not have to develop their own mercury emission reduction strategies and industry would not have to become familiar with and implement multiple approaches to achieving the required emission reductions.

Today's proposed rule would add specific mercury monitoring provisions to Parts 72 and 75, in support of Subpart I. One definition in §72.2 would be revised and one new definition would be added. The proposal would add two new sections to Part 75 (§§75.38 and 75.39), and would revise §§75.2, 75.10, 75.15, 75.20, 75.21, 75.22, 75.24, 75.31, 75.32, 75.33, 75.37, 75.38, 75.39, 75.53, 75.57, 75.58, and 75.59. Revisions to Appendices A, B, and F of 40 CFR part 75 are also proposed. The proposed amendments to Parts 72 and 75 would only apply to sources in a State or Federal mercury mass emissions reduction program that adopts the monitoring provisions of Subpart I.

Today's proposed rule therefore encourages States to consider implementing a cap-and-trade program for mercury mass emissions reduction, using Part 75 monitoring. Having a standardized approach to emissions monitoring would greatly facilitate the administration of such a program. It would also establish a "level playing field" among the regulated sources, thereby ensuring the integrity of the commodity being traded (i.e., the emission allowances). These concepts have been convincingly demonstrated by the success of the EPA's Acid Rain Program.

II. Detailed Discussion of the Proposed Revisions

A. Monitoring Requirements for a Mercury Trading Program

Today's proposed rule would add emission monitoring requirements to Part 75 for a mercury mass emission reduction program. To achieve this, Subpart I, containing five new sections (§§75.80 through 75.84), would be added to the rule. Compliance with Subpart I would be required only if the mercury monitoring provisions of Subpart I were adopted as an element of a State or Federal mercury mass emissions reduction program.

Under proposed §75.80(a), the term "affected unit" would mean any coal-fired unit subject to such a program. The "permitting authority" would be the State or Federal authority under which the program is implemented, and the "designated representative" would be the party responsible to ensure that the affected unit compliance with the program requirements.

If an affected unit in the mercury mass emission reduction program were also subject to the Acid Rain Program or to other programs requiring the use of Part 75 monitoring (e.g., the NO_x Budget Trading Program), the owner or operator would have to comply with the mercury monitoring provisions in addition to the monitoring requirements of the other program(s). Compliance with the monitoring and reporting provisions of Subpart I would be required by the applicable deadline specified in the State or Federal regulations establishing the trading program.

Regarding the monitoring of mercury emissions, proposed §75.80(c) sets forth prohibitions similar to those outlined in the Acid Rain Program. Specifically, the use of any other alternative monitoring system, reference method, or continuous emission monitoring system without obtaining prior written approval from the permitting authority would be prohibited. In addition, the owner or operator of an affected unit would be prohibited from: (1) operating the unit so as to discharge mercury to the atmosphere without accounting for such emissions; (2) disrupting the continuous emission monitoring system or any other approved emission monitoring method to thereby avoid monitoring and recording mercury mass emissions; or (3) retiring or permanently discontinuing the use of the required continuous emission monitoring systems, or any other approved emission monitoring system(s) except in a few precisely defined circumstances.

Proposed §75.80(d) describes the initial certification, recertification, and quality-assurance (QA) requirements for the monitoring systems needed to quantify mercury mass emissions. In general, these requirements would be the same as or similar to the ones established for Acid Rain Program monitoring systems in §§75.20 and 75.21 and in Appendix B of 40 CFR part 75. Since most coal-fired electric generating units are subject to the Acid Rain Program and are familiar with the basic Part 75 monitor certification and QA procedures, EPA believes that this would facilitate compliance with the mercury monitoring requirements.

Section 75.80(f) of the proposed rule would require the owner or operator to report substitute data values for every unit operating hour in which a valid, quality-assured hour of mercury emissions data is not obtained with a certified monitoring system or a reference method. For uncertified monitoring systems, maximum potential concentrations or emission rates would be reported until all of the certification tests have been passed. After certification, special missing data algorithms would be used to provide the substitute data values. These missing data routines are discussed in greater detail below, in section II.C.6 of this appendix.

Proposed §75.80(h) would allow sources to petition for an alternative to any requirement of Subpart I. The petition would have to meet the requirements of §75.66 and any additional requirements established by the State or Federal mercury mass emission reduction program.

Proposed §75.81 sets forth the general requirements for monitoring mercury emissions and heat input for affected units with simple exhaust configurations (i.e., one unit, one stack). Note that although mercury compliance would be determined on a facility-wide basis, the emissions from each individual unit at the facility would be monitored, in the same manner as is done under the Acid Rain and NO_x Budget Programs. The owner or operator would be required to determine hourly mercury mass emissions in one of two ways: (1) by monitoring the mercury emission rate (lbs/10^{12} Btu), the unit heat input rate (mmBtu/hr), and the unit operating time (hr); or (2) measuring mercury concentration (μg/dscm), the stack gas flow rate (scfh), and the unit operating time (hr). In both cases, the hourly mercury mass emissions (in ounces) would be determined by multiplying the measured parameters together and using a conversion constant to obtain the desired units of measure.

To use the first mercury mass monitoring option (i.e., mercury emission rate times heat input rate), the owner or operator would be required to install a mercury-diluent CEMS (consisting of a mercury concentration monitor and an O_2 or

CO_2 diluent gas monitor), a flow rate monitoring system, and a continuous moisture monitoring system (or to use an appropriate default moisture value, either from §75.11 or §75.12, or a site-specific value approved by petition under §75.66).

If the source elected to use the second mercury mass monitoring option (i.e., mercury concentration multiplied by flow rate), a mercury concentration monitor or a sorbent trap monitoring system would be required, along with a flow rate monitoring system, a continuous moisture monitoring system (or approved default moisture value), and, if heat input monitoring is required under the trading program, the owner or operator would also have to certify an O_2 or CO_2 monitoring system. Regarding the use of sorbent trap monitoring systems, two versions of §75.81(b)(1) are being proposed, corresponding to two alternative approaches discussed in detail below, in section II.B.3 of this appendix. Under Alternative # 1, the use of sorbent trap systems would be restricted to affected units that emit less than 9 lbs (144 ounces) of mercury per year (i.e., on a 3-year average basis, for the same calendar years used to allocate the Hg allowances). Under Alternative # 2, this restriction does not appear in proposed §75.81(b)(1). Finally, note that under proposed §75.81(c), new units that commence commercial operation more than 6 months after the date of publication of the final rule implementing the trading program would be required to use mercury CEMS. For new coal-fired electric generating units, this is consistent with the monitoring requirements for other pollutants (e.g., SO_2 , NO_x) under NSPS and the Acid Rain Program.

Section 75.82 of the proposed Subpart I sets forth requirements for monitoring emissions from units with common stack or multiple stack exhaust configurations. While many power plants have simple one unit-one stack exhaust configurations with CEMS installed on the stack, other plants have more than one unit discharging through a common stack or have a unit that discharges through multiple stacks. The emission calculations for a single unit with a single stack are relatively simple, but complications can arise with the calculations for common or multiple stacks. These configurations sometimes require special monitoring and apportioning methodologies, as described in proposed §75.82. The provisions in §75.82 mirror, when appropriate, existing Part 75 provisions for monitoring SO_2 and NO_x mass emissions from similar units and groups of units.

Proposed §75.83 of Subpart I would establish the requirement to calculate mercury mass emissions and heat input rate in accordance with Appendix F of Part 75. For a detailed discussion of these calculations, see section II.C.12 of this appendix.

Finally, proposed §75.84 of Subpart I sets forth the general recordkeeping and reporting requirements associated with mercury mass emission monitoring. For the most part, proposed §75.84 refers to other sections of Part 75, where the specific recordkeeping and reporting requirements are found, although note that a few provisions in §75.84 are unique and appear only in that section.

B. Types of Mercury Monitoring Systems

1. Mercury CEMS

Today's proposed rule would expand the definition of "continuous emission monitoring system or CEMS" to include a "Hg concentration monitoring system" and a "Hg-diluent monitoring system". A mercury concentration monitoring system would consist of a mercury pollutant concentration monitor and an automated data acquisition and handling system (DAHS), and would provide a permanent, continuous record of mercury emissions in units of micrograms per dry standard cubic meter (μg/dscm).

A mercury-diluent monitoring system would consist of a mercury pollutant concentration monitor, a diluent gas (CO_2 or O_2) monitor, and an automated DAHS. The monitoring system would provide a permanent, continuous record of: mercury concentration in units of micrograms per dry standard cubic meter (μg/dscm); diluent gas concentration (in percent O_2 or CO_2); and mercury emission rate in units of pounds per trillion British thermal units (lb/10^{12} Btu).

2. Sorbent Trap Systems

Today's proposed rule would also add a new definition to §72.2, i.e., the definition of a "sorbent trap monitoring system". As set forth in the proposed definition in §72.2, a sorbent trap monitoring system would consist of a probe, a pair of sorbent traps (each containing a reagent such as iodinized carbon (IC)), a heated umbilical line, moisture removal components, an air-tight sample pump, a dry gas meter, and an automated data acquisition and handling system (DAHS). The monitoring system would sample the stack gas at a rate proportional to the stack gas volumetric flow rate. The sampling would be done as a batch process, with the sorbent traps being used for a data collection period ranging from hours to weeks, depending upon the mercury concentration in the stack. Using the sample volume measured by the dry gas meter during the data collection period and the results of laboratory analysis of the mercury captured in the sorbent traps, the mercury concentration in the stack gas would be determined in units of micrograms per dry standard cubic meter (μg/dscm). Mercury mass emissions for each hour in the sampling period would then be calculated using the higher of the two average mercury concentrations obtained with the paired sorbent traps for that period in conjunction with contemporaneous measurements of the stack gas flow rate.

3. Use of Mercury CEMS and Sorbent Trap Systems

In today's proposed rule, EPA solicits comment on two alternative approaches concerning the use of Hg CEMS and sorbent trap monitoring systems in a Hg mass emissions trading program. Proposed rule language for both alternatives is provided. The two alternatives are as follows:

Alternative 1: Under this approach, EPA would allow the use of sorbent trap systems for a subset of the affected units. The use of sorbent traps would be limited to low-emitting units, having estimated 3-year average Hg emissions of 144 ounces (9 lb) or less, for the same three calendar years used to allocate the Hg allowances. The threshold value of 9 lb per year is based on 1999 data gathered by EPA under an information collection request (ICR) that appeared in the Federal Register on April 9, 1998. Based solely on the 1999 ICR data, 228 of the 1120 coal-fired electrical generating units in the database (i.e., 20 percent of the units), representing 1 percent of the 48 tons of estimated nationwide emissions, would qualify to use sorbent trap monitoring systems.

This approach is consistent with the way that EPA has implemented the Acid Rain and NO_x Budget Programs. In both of these trading programs, the use of CEMS has been required with few exceptions. Alternatives to CEMS have only been allowed where either: (1) the emissions contributed by a particular category of affected sources are at a very low level in comparison to the emissions “cap” for the program (for example, oil and gas-fired units may use the procedures in Appendix D of Part 75 for SO_2 mass emissions accounting, and oil and gas-fired peaking units may use Appendix E for NO_x emissions accounting); or (2) an alternative monitoring system has been demonstrated, according to the criteria in Subpart E of Part 75, to be capable of generating data that has the same precision, reliability, accuracy, and timeliness as a CEMS.

This general approach to emissions monitoring has worked well in the Acid Rain and NO_x Budget Trading Programs. All required CEMS must undergo rigorous initial certification testing and periodic quality-assurance testing, and must conform to Part 75 performance specifications. Emissions data from the monitoring systems are reduced in a consistent manner that represent real-time conditions. A standard set of data validation rules and substitute data procedures apply to all of the CEMS. These stringent requirements provide an accurate accounting of the mass emissions from each affected unit and ensure a “level playing field” among the regulated sources. This in turn inspires confidence among the trading program participants in the integrity of the commodity being traded (i.e., the emission allowances).

Alternative 1 restricts the use of sorbent trap monitoring systems for the same reason that Part 75 restricts the use of Appendices D and E for SO_2 and NO_x emissions accounting, i.e., because the methodology represents a departure from traditional CEMS technology. Nevertheless, in light of recent field studies which have indicated that sorbent traps are capable of providing accurate measurements of mercury concentration that compare favorably to measurements made with mercury CEMS (Docket 2002-0056, Items 0023 through 0027), EPA is taking comment on the following alternative Hg emission thresholds, below which the sorbent trap systems could be used: 29 lb/year, 46 lb/year, and 76 lb/year. Based on the 1999 ICR data, these thresholds would represent, respectively, 5, 10, and 20 percent, respectively, of the estimated nationwide emissions, and would allow 39, 50, and 65 percent, respectively, of the affected units to use the sorbent trap systems.

Alternative 2: The EPA is also proposing a second continuous Hg monitoring alternative whereby any source could use either CEMS or sorbent traps, on the condition that quarterly relative accuracy testing of each sorbent trap system is performed. A full 9-run RATA would be required annually and a 3-run relative accuracy audit (RAA) would be required in each of the other quarters of the year in which the unit operates for at least 168 hours. For sources with annual Hg emissions below the specified threshold value, the QA requirements for sorbent trap monitoring systems would be less, with only an annual RATA being required.

The EPA believes that in order to extend the use of sorbent trap systems to the units that potentially account for 80 percent (or more) of the Hg emissions in the budget for an emissions trading program, an additional, substantive quarterly QA test should be required. This is consistent with the QA requirements of Parts 60 and 75, for monitors that are used for compliance determination. Both Part 60 and Part 75 require at least one such QA test to be performed each quarter. Appendix F of Part 60 requires affected facilities to perform a RATA in one calendar quarter of the year and to perform either a cylinder gas audit (CGA) or a RAA in the other three quarters. Under Appendix B of Part 75, quarterly linearity checks are required, in addition to semiannual or annual RATA. Because sorbent trap systems cannot be calibrated with cylinder gases, linearity checks and CGA are not feasible. Therefore, a RATA would be required in one quarter and an RAA in the other three quarters. However, note that the Agency is willing to consider replacing the RAA requirement with another type of substantive quarterly QA test, if commenters who favor the use of sorbent trap systems are aware of, and can provide details of, any such test or procedure.

C. Adapting Part 75 Monitoring to a Mercury Trading Program

Today’s proposed rule would amend the text and appendices of Part 75 to set forth requirements for the continuous monitoring and reporting of mercury mass emissions under a trading program that adopts Subpart I.

The proposed revisions include a number of changes that EPA believes would facilitate the implementation of such a program. These include, but are not limited to, special provisions for measuring mercury mass emissions with sorbent trap monitoring systems, quality assurance and quality control requirements for mercury CEMS and sorbent traps, missing data procedures for both mercury CEMS and sorbent trap systems, determination of monitor availability, recordkeeping and reporting provisions, and mathematical equations for quantifying mercury mass emissions.

The majority of the proposed changes are substantive, and are patterned after requirements already established for SO_2 and NO_x monitors. EPA believes that this would greatly assist the affected sources in becoming familiar with the new requirements and would maintain a consistency between the new rule requirements and those already established by Part 75. The proposed revisions would require mercury emissions data to be reported to EPA in electronic quarterly reports, in a format similar to the one currently used for SO_2 and NO_x emissions reporting.

1. Applicability

Today’s proposed rule would add paragraph (d) to §75.2, indicating that the mercury monitoring provisions of Part 75 would apply to sources subject to a State or Federal mercury mass emission reduction program only to the extent that Part 75 monitoring is adopted by such a program.

2. General Operating Requirements for Mercury Monitoring Systems

EPA proposes to amend §75.10 to include general operating requirements for mercury CEMS (i.e., mercury concentration monitoring systems and mercury-diluent monitoring systems). These revisions would require all data collected by the mercury CEMS to be reduced to hourly averages, in the same manner as is done for SO_2, NO_x, CO_2 and flow rate monitors. Mercury CEMS would also have the same minimum data capture requirements as other Part 75 CEMS to validate the hourly averages.

3. Special Operating Procedures for Sorbent Trap Monitoring Systems

EPA proposes to add text to §75.15 (previously reserved), to set forth special provisions for measuring mercury mass emissions with sorbent traps. For each monitoring system, the use of paired sorbent traps would be required. The use of redundant backup systems would be allowed, provided that each backup system uses paired sorbent traps. A stack flow monitor and a moisture monitoring system (or approved moisture constant) would be used in conjunction with the sorbent trap system to quantify mercury mass emissions.

Each sorbent trap monitoring system would be installed and operated in accordance with EPA Method 324. This method specifies the minimum quality assurance and quality control procedures necessary to ensure proper operation of the system. Mercury sampling would be proportional to the stack gas volumetric flow rate. In section 6.5.2.1 of Appendix A to Part 75, there is a standardized procedure for dividing the operating range of the affected unit into three load levels, i.e., low, mid, and high, and for identifying which of these load levels is normal. For the purposes of applying Method 324, an intermediate sampling rate of 0.3 to 0.5 liters per minute through each sorbent trap would be used when the unit is operating at the normal load level, whether low, mid, or high. The sampling rate would then be increased or decreased, as appropriate, by 0.1 liters/min when the unit operates at the other two load levels. EPA solicits comment on the appropriateness of this sample rate adjustment procedure.

After each sample collection period (the length of which would depend upon the expected mercury concentration in the stack gas), the mass of mercury adsorbed in the sorbent trap would be determined using Method 324. For each sorbent trap, the average mercury concentration (μg/dscm) for the collection period would be calculated by dividing the total mercury mass by the total volume of dry gas metered. For each pair of sorbent traps, the higher of the two average Hg concentrations would be used for reporting purposes. Finally, the mercury mass emissions for each hour of the collection period would be determined using the average mercury concentration in conjunction with the hourly flow rates recorded by the stack flow monitor.

All valid data from the primary sorbent trap monitoring system would be required to be reported in the electronic quarterly report under §75.84(f). When the primary monitoring system is non-operational or for hours in which data from that system are invalid (as determined using the quality control procedures in section 9.0 of Method 324), the owner or operator would have the option of reporting valid mercury concentration data from a certified redundant backup monitoring system or from the Ontario Hydro reference method. However, if for a particular hour no quality-assured mercury concentration data are available, the owner or operator would report the appropriate substitute data values, in accordance with proposed §75.39.

4. Certification and Recertification of Mercury Monitoring Systems

Proposed revisions to §75.20 would specify the required initial certification tests for mercury CEMS and sorbent trap monitoring systems. The mercury concentration and mercury-diluent CEMS would be required to undergo the same full battery of certification tests that is required for SO_2 and NO_x monitoring systems (i.e., 7-day calibration error tests, linearity checks, cycle time tests, and relative accuracy test audits (RATAs)). In addition, a 3-point check of the converter, using $HgCl_2$ standards, as described in sections 8.3 and 13.1 of proposed Performance Specification 12A, would be required. For sorbent trap monitoring systems, only a RATA would be required for initial certification, since the 7-day calibration error test, linearity check and cycle time test, all of which require calibration gas injection, cannot be performed on a sorbent trap system. Proposed revisions to §§75.21 and 75.22 would require the Ontario Hydro method to be used as the mercury concentration reference method for relative accuracy testing. Under the proposed revisions to §75.20(b), all three types of mercury monitoring systems would be subject to the same recertification requirements as the other Part 75 monitoring systems.

5. Bias Adjustment of Mercury Emissions Data

Today's proposed rule would amend §75.24 to require mercury emissions data to be adjusted for bias in the same manner as is done for SO_2, NO_x, and flow rate data. If the bias test performed on the relative accuracy data indicates that a mercury-diluent monitoring system, a mercury concentration monitoring system, or a sorbent trap monitoring system is biased low with respect to the reference method, the owner or operator would be required to either: (1) adjust the monitoring system to eliminate the cause of the bias and perform another RATA to verify that the bias has been eliminated; or (2) calculate a bias adjustment factor (BAF) and apply it to the subsequent mercury emissions data recorded by the monitoring system.

6. Missing Data Procedures for Mercury Monitoring Systems

For mercury concentration and mercury-diluent CEMS, proposed revisions to §75.31 would require the same initial missing data procedures that are used for SO_2 monitors to be applied until 720 hours of quality-assured mercury concentration or mercury emission rate data have been collected, following initial certification of the CEMS. That is, the hourly values of mercury concentration or mercury emission rate recorded immediately before and after the missing data event would be averaged and applied to each hour of the missing data period.

EPA proposes to amend §75.32 to require the percent monitor data availability (PMA) to be calculated and reported after 720 hours of quality-assured mercury concentration or mercury emission rate data have been collected following initial certification. At that point, the owner or operator would switch from using the initial missing data procedures to the proposed standard missing data procedures in §75.38. The proposed standard missing data procedures for mercury CEMS are modeled after the familiar SO_2 missing data algorithms in §75.33(b). EPA considered using the load-based NO_x missing data routines in §75.33(c) as the model for mercury, but this approach is not being proposed, in the absence of any data indicating that vapor phase mercury emissions are load-dependent. The Agency solicits comments on the proposed missing data approach.

For a unit equipped with a flue gas desulfurization (FGD) system that meaningfully reduces the concentration of mercury emitted to the atmosphere, or for a unit equipped with add-on mercury emission controls, the initial and standard mercury missing data procedures would apply only when the FGD or add-on controls are documented to be operating properly, in accordance with §75.58(b)(3). A certification statement from the designated representative verifying proper operation of the emission controls during the missing data periods would be required in each electronic quarterly report. For any hour in which the FGD or add-on controls are not operating properly, the maximum potential mercury concentration (MPC) or the maximum potential mercury emission rate (MER) would be the required substitute data value.

Also for units equipped with FGD systems or add-on mercury emission controls, proposed §75.38 would allow the owner or operator to petition to use the maximum *controlled* mercury concentration or emission rate in the 720-hour missing data lookback (in lieu of the maximum *recorded* value) when the PMA is less than 90.0 percent.

In proposed §75.39, EPA would add initial and standard missing data procedures for sorbent trap monitoring systems. Once a sorbent trap monitoring system has been certified, missing data would be substituted whenever a gas sample is not extracted from the stack, or when the results of the mercury analyses representing a particular period of unit operation are missing or invalid. In the latter case, the missing data period would begin when the sorbent traps for which the mercury analyses are missing or invalid were put into service and would end when valid mercury concentration data are first obtained with another pair of sorbent traps.

The initial missing data procedures would be applied from the hour of certification until 720 quality-assured hours of data have been collected with the sorbent traps. The initial missing data algorithm would require the owner or operator to average the mercury concentrations from all valid sorbent trap analyses to date, including data from the initial certification test runs, and to fill in this average concentration for each hour of the missing data period.

Once 720 quality-assured hours of mercury concentration data are collected, the owner or operator would begin reporting the percent monitor data availability (PMA) and would begin using the standard missing data algorithms. The standard missing data procedures for sorbent trap systems would follow a “tiered” approach, based on the PMA. For example, at high PMA ($\geq$ 95.0%), the substitute data value would be the average mercury concentration obtained from all valid sorbent trap analyses in the previous 12 months. At lower PMA values, the substitute data values would become increasingly conservative, until finally, if the PMA drops below 80.0%, the maximum potential mercury concentration (MPC) would be reported.

Similar to the proposed provision for mercury CEMS, if a unit that uses sorbent traps is equipped with an FGD system or add-on mercury emission controls, the initial and standard missing data procedures could only be applied for hours in which proper operation of the emission controls was documented. In the absence of such documentation, the mercury MPC would be reported.

7. Monitoring Plan Information for Mercury Monitoring Systems

EPA is proposing to amend §75.53 to require the owner or operator to provide essential information for each mercury monitoring system in the monitoring plan for the affected unit. The information to be provided would include the identification and description of each monitoring system component (e.g., the analyzer, DAHS, etc.). For each mercury CEMS, the maximum potential mercury concentration, the maximum expected concentration (if applicable), the maximum potential mercury emission rate (if applicable), span value(s), full-scale range(s), daily calibration units of measure, and other specified parameters would be defined in the monitoring plan. Appropriate formulas for calculating mercury emission rate (if applicable) and mercury mass emissions would also be included in the plan.

8. Recordkeeping and Reporting

Today’s proposed rule would amend §75.57 to add general recordkeeping provisions for mercury monitoring systems and the auxiliary monitors (flow, moisture, and O_2 or CO_2) needed to quantify mercury mass emissions and heat input. The owner or operator would be required to record data from these monitoring systems on an hourly average basis, and to report it electronically on a quarterly basis.

For mercury concentration CEMS, the owner or operator would record, for each operating hour, information such as the component-system identification codes, the date and hour, the average mercury concentration, the bias-adjusted mercury concentration (if a bias adjustment factor (BAF) is required), the method of determination codes for the mercury concentration, flow rate and moisture data, and the percent monitor data availability for each monitored parameter.

For mercury-diluent systems, the owner or operator would record hourly information such as the monitoring system and component identification codes, the date and hour, the average mercury and diluent gas concentrations, the average stack gas flow rate and moisture content, the average mercury emission rate, the bias-adjusted mercury emission rate (if a BAF is required), the percent monitor data availability for mercury emission rate, flow rate and moisture, the method of determination codes for the mercury emission rate, flow rate, percent moisture and diluent gas concentration, the identification codes for emissions formulas used to calculate the mercury emission rate and mercury mass emissions, and the F-factor used to convert mercury concentrations into emission rates.

For sorbent trap monitoring systems, the owner or operator would record hourly information such as component-system identification codes, date and hour, average mercury concentration, bias-adjusted mercury concentration (if a BAF is required), the method of determination codes and percent monitor data availability for mercury concentration, flow rate and moisture, the average flow rate of the stack gas sample through each sorbent trap, and the unit or stack operating load level.

Today's proposed rule would also amend §75.59, the quality-assurance and quality-control (QA/QC) recordkeeping section, to require that records be kept of all QA tests of mercury monitoring systems (e.g., calibrations, linearity checks, and RATAs). The proposed revisions to §75.59(a)(7) would further require the following data elements to be recorded for each RATA run using the Ontario Hydro reference method: the percentage of CO_2 and O_2 in the stack gas, the moisture content of the stack gas, the average stack temperature, the dry gas volume metered, the percent isokinetic, the particle-bound mercury collected by the filter, blank, and probe rinse, the oxidized mercury collected by the KCl impingers, the elemental mercury collected in the HNO_3 /H_2O_2 impinger and in the $KMnO_4$ /H_2SO_4 impingers, the total mercury including particle-bound mercury, and the total mercury excluding particle-bound mercury.

Finally, for each sorbent trap monitoring system, the owner or operator would be required to record information such as the ID number of the monitoring system in which the paired sorbent traps are used to collect mercury, the unique

ID number of each sorbent trap, the beginning and ending dates and hours of the data collection period, the two average mercury concentrations for the data collection period, and information documenting the results of the required Method 324 leak checks, quality control procedures, and laboratory analyses of the mercury collected by the sorbent traps.

9. Span and Range Values for Mercury Monitors

EPA proposes to amend section 2 of Appendix A to Part 75, by adding a new sub-section, 2.1.7, to address span and range issues for mercury CEMS.

Since the mercury content of different types of coal is variable, the maximum potential mercury concentration (MPC) depends upon which type of coal is combusted in the unit. For the initial MPC determination, today's proposed rule would provide the owner or operator with three options: (1) to use a fuel-specific default value of 9 μg/dscm for bituminous coal, 10 μg/dscm for sub-bituminous coal, 16 μg/dscm for lignite, and 1 μg/dscm for waste coal (if different coals are blended, the highest MPC value for any fuel in the blend would be used); (2) to determine the MPC based on the results of site-specific emission testing using the Ontario Hydro method (at least three 2-hour runs at normal load). This option would be allowed only if the unit does not have add-on mercury emission controls or a flue gas desulfurization system, or if the testing is done upstream of these control devices; or (3) to base the MPC on 720 or more hours of historical CEMS data, if the unit has a mercury CEMS that has been tested for relative accuracy against the Ontario Hydro method and has met a relative accuracy specification of 20.0% or less.

The terms “span” and “range” do not apply to sorbent trap monitoring systems; however, note that an MPC determination would be required for these monitoring systems for the purposes of missing data substitution. Also, for units using mercury-diluent monitoring systems, calculation of the maximum potential mercury emission rate (MER), in units of lb/10^{12} Btu, would be required for purposes of missing data substitution. To determine the MER, the owner or operator would use the appropriate emission rate equation from section 9 of appendix F, substituting into the equation the MPC value, the minimum expected CO_2 concentration or maximum expected O_2 concentration during normal operation (excluding unit startup, shutdown, and process upsets), the expected stack gas moisture content (if applicable), and the appropriate F-factor.

For units with FGD systems (including fluidized bed units that use limestone injection) and for units equipped with add-on mercury emission controls (e.g., carbon injection), a determination of the maximum expected mercury concentration (MEC) during normal, stable operation of the unit and emission controls would be required. To calculate the MEC, the previously-determined MPC value would be substituted into Equation A-2 in section 2.1.1.2 of Part 75, Appendix A. In applying Equation A-2, units using add-on mercury emission controls such as carbon injection would use a mercury removal efficiency obtained from design engineering calculations. For units with FGD systems, the owner or operator would use the best available estimate of the mercury removal efficiency of the FGD.

The span and range value(s) for each mercury monitor would be calculated as follows. A “high” span value would be determined by rounding the MPC value upward to the next highest multiple of 10 μg/dscm. If the affected unit is equipped with an FGD system or add-on mercury emission controls, and if the MEC value is less than 20 percent of the high span value and the high span value is 20 μg/dscm or greater, the owner or operator would be required to define a second, low span value of 10 μg/dscm.

If the owner or operator determines that only a high span value is required, the full-scale range of the mercury analyzer would be set greater than or equal to the span value. If two span values are required, the owner or operator could either use two separate (high and low) measurement scales, or quality-assure two segments of a single measurement scale.

The owner or operator would be required to make a periodic evaluation (at least annually of the MPC, MEC, span, and range values for each mercury monitor, to make any necessary span and range adjustments and corresponding monitoring plan updates, and to keep the results of the most recent span and range evaluation on-site, in a format suitable for inspection. Span and range adjustments might be required, for example, as a result of changes in the fuel supply, changes in the manner of operation of the unit, or with installation or removal of emission controls. Each required span or range adjustment would have to be made 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 would be allowed if the calibration gases currently being used for daily calibration error tests and linearity checks are unsuitable for use with the new span value.

If a full-scale range exceedance occurs during a quarter and is not caused by a monitor out-of-control period, for monitors with a single measurement scale, the owner or operator would report 200 percent of the full-scale range as the hourly mercury concentration until the readings come back on-scale. If over-scaling occurs, appropriate adjustments to the MPC, span, and range would be required to prevent future full-scale exceedances. For units with two separate measurement scales, no further action would be required if the low range is exceeded and the high range is available. However, if the high range is not able to provide quality assured data at any time during the continuation of a low-scale exceedance, then the MPC would be reported until the readings return to the low range or until the high range is able to provide quality-assured data.

Whenever changes are made to the MPC, MEC, full-scale range, or span value of the mercury monitor, the new settings, MPC or MEC, and calculations of the adjusted span value(s) would be represented in an updated monitoring plan. The monitoring plan update would be made in the quarter in which the changes become effective. Whenever a span adjustment is made, the owner or operator would be required to ensure that the new span value is reflected in the records for the daily calibration error tests and quarterly linearity checks. For mercury monitors, a diagnostic linearity check would be required when a span value is changed, using calibration gases consistent with the new span value.

10. Performance Specifications for Mercury Monitoring Systems

Today’s proposed rule would amend section 3 of Appendix A to Part 75 by setting forth performance specifications for the initial certification of mercury monitoring systems. In particular, specifications for 7-day calibration error tests, linearity checks, cycle time tests, converter checks, and RATAs are proposed. A bias test of each mercury monitoring system would also be required and a bias adjustment factor would have to be applied to the subsequent data generated by any monitoring system found to have a low bias. For the 7-day calibration error tests, linearity checks and cycle time tests, proposed section 5.1.9 of Appendix A would require the use of elemental mercury calibration gas standards. For converter checks, the use of $HgCl_2$ standards would be required.

For each day of the 7-day calibration error test, the monitor would not be permitted to deviate from the zero or upscale reference calibration gas by more than 5.0 percent of the span value. As an alternative, if the span value is 10 μg/dscm (i.e., the lowest allowable span for a mercury monitor), the calibration error test results would also be acceptable if the absolute value of the difference between the monitor response value and the reference value (i.e., |R-A| in Equation A-5 of Appendix A), is less than or equal to 1.0 µg/dscm.

Linearity checks would be required for all mercury CEMS. For dual-span units, the test would be required on both measurement scales (or at two distinct segments of a single measurement scale). The maximum allowable linearity error at any gas injection level (low, mid, or high) would be 10.0% of the reference gas tag value. Alternatively, the results would be acceptable if the absolute difference between the reference gas value and the average analyzer response (i.e., |R-A| in Equation A-4 of Appendix A) does not exceed 1.0 µg/dscm.

A cycle time test of each mercury CEMS would be required. For this test, however, EPA is not proposing any new performance specification. The pass/fail criterion for the cycle time test of a mercury concentration or mercury-diluent monitoring system would be the same as for a Part 75 gas monitoring system (i.e., 15 minutes).

A 3-point check of the converter would be required for each mercury monitor, using $HgCl_2$ standards. The test would be performed as described in section 8.3 of proposed Performance Specification 12A (PS-12A) and at each gas level, the monitor would have to meet the 5.0% of span specification in section 13.1 of proposed PS-12A.

Relative accuracy testing of all three types of mercury monitoring systems, i.e., mercury concentration CEMS, mercury-diluent CEMS, and sorbent trap monitoring systems, would be required. The proposed relative accuracy specification for these monitoring systems is 20.0 percent. Alternatively, for low-emitting sources, where the average of the reference method measurements of mercury concentration during the relative accuracy test audit is less than 5.0 μg/dscm, or where the average mercury emission rate measured by the reference method is less than 5.5 lb/10^{12} Btu during the RATA, the test results would be acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 μg/dscm or 1.1 lb/10^{12} Btu (as applicable), in cases where the relative accuracy specification of 20.0 percent is not achieved. Also, for low-emitting sources that pass the RATA but fail the bias test, proposed revisions to section 7.6.5(b) of Appendix A would allow the use of a default BAF “cap” value of 1.250, if the calculated BAF exceeds 1.250.

Finally, EPA proposes to revise sections 6.5(a) and 6.5.7 of Appendix A to require that the RATAs of mercury monitoring systems be performed while the unit is combusting coal. The minimum acceptable time for each test run using the Ontario Hydro reference method would be 2 hours. For sorbent trap monitoring systems, a new pair of sorbent traps would be required to be used for each RATA run.

11. On-Going Quality-Assurance of Mercury Monitoring Systems

Today’s proposed rule would revise sections 1 and 2 of Appendix B to Part 75 to add specific quality-assurance and quality control requirements for mercury monitoring systems.

First, for sorbent trap monitoring systems, EPA proposes to add a new section 1.5 to Appendix B to set forth the minimum acceptable elements of a QA/QC program for these monitoring systems. As previously noted, sorbent traps differ from traditional CEMS, in that daily calibration checks and quarterly linearity checks cannot be performed on these systems. Thus, the on-going quality of the data from a sorbent trap system depends vitally on the manner of operation of the system and the care with which the sorbent traps are handled. In view of this, EPA is proposing that the QA plan for sorbent trap systems include the following elements: (1) an explanation of the procedures for inscribing and tracking a unique identification number on each sorbent trap; (2) an explanation of the leak check procedures used and other QA procedures used to ensure system integrity and data quality (e.g., dry gas meter calibrations, verification of moisture removal, verifying air-tight pump operation; (3) the data acceptance and quality-control criteria in section 9.0 of Method 324; (4) documentation of the procedures used to transport and analyze the sorbent traps; (5) documentation that the laboratory performing the sorbent trap analyses is certified by the International Organization for Standardization (ISO) to have a proficiency that meets the requirements of ISO 9000; and (6) the rationale used to justify the minimum acceptable data collection time for each sorbent trap. Proposed section 1.5 also requires records to be kept of the procedures and details associated with the RATA testing of the sorbent trap monitoring systems.

For mercury CEMS, revised section 2.1.1 of Appendix B would require the same daily calibration error tests to be performed on mercury monitors as are done on other Part 75 monitors. Each mercury monitor would be required to meet a daily calibration error specification of either 7.5 percent of the span value or an absolute difference of $\leq$ 1.5 μg/dscm between the reference gas and the analyzer response (whichever is less restrictive).

A monthly 3-point check of the converter would be required for each mercury monitor, using $HgCl_2$ standards (see proposed section 2.6 and proposed revisions to Figure 1 in Appendix B). This test would be done according to section 8.3 of proposed Performance Specification 12A and the monitor would be required to meet an error specification of 5.0% of span at each gas level. The test would only be required for months in which the unit operates for 168 hours or more.

Revised section 2.2.1 of Appendix A would require quarterly linearity checks to be performed on each mercury monitor. Elemental mercury standards would be used for these tests. Revised sections 2.3.1.2 and 2.3.1.3 of Appendix B would require an annual RATA and bias test of each mercury concentration monitoring system, each mercury-diluent monitoring system, and each sorbent trap monitoring system. The RATAs would be performed at the normal load level. If any monitoring system fails the bias test, the owner or operator would calculate a bias adjustment factor and apply it to the subsequent hourly data recorded by that system.

Regarding sorbent trap monitoring systems, note that two versions of the amended regulatory language and Figures in section 2 of Part 75, Appendix B are presented, corresponding to Alternatives # 1 and # 2, previously discussed in section II.B.3 of this appendix. Under

Alternative # 1, only an annual RATA would be required in addition to the Method 324 QA/QC procedures. Under Alternative # 2, the annual RATA would be required for all sorbent trap monitoring systems, and additional quarterly 3-run relative accuracy audits (RAAs) would be required if the unit's average Hg emissions exceed 9 lbs/yr for the same calendar years used to allocate the Hg allowances. The RAAs would be required in every QA operating quarter (i.e., quarters with at least 168 unit or stack operating hours) following initial certification, except for quarters in which a full RATA is performed.

EPA believes that the proposed performance specifications for the initial certification tests and on-going quality-assurance tests are reasonable and achievable, in view of the results of recent field evaluations of mercury CEMS and sorbent traps (Docket 2002-0056, Items # 0023 through 0027). The Agency solicits comment on the appropriateness of the proposed specifications.

12. Calculation of Mercury Mass Emissions

Today's proposed rule would add section 9 to Appendix F of Part 75. Proposed section 9 would provide the necessary equations for calculating the hourly, quarterly, and year-to-date mercury mass emissions. Three new equations, F-28, F-29, and F-30, would be added to Appendix F.

Equation F-28 would be used to determine the hourly mercury mass emissions (in ounces, rounded to one decimal place), when the mercury concentration (in µg/dscm)is measured with a mercury concentration CEMS or with a sorbent trap system. For units using mercury-diluent CEMS, proposed section 9.1.2 of Appendix F would require the measured hourly emission rate (in lb/10^{12} Btu) to be determined using a modified version of Equation F-5 or F-6 in Appendix F of Part 75 (when the diluent gas is measured on a dry basis) or a modified version of Equation 19-5 or 19-9 from EPA Method 19 in Appendix B of Part 60 (when the diluent gas is measured on a wet basis). Then, the mercury emission rate would be substituted into proposed Equation F-29 to determine the hourly mercury mass emissions (in ounces, rounded to one decimal place). The quarterly and year-to-date mercury mass emissions (in ounces) would be calculated using proposed Equation F-30.

Finally, where heat input monitoring is required, proposed section 9.3 of Appendix F would instruct the owner or operator to follow the heat input rate apportionment and summation procedures in sections 5.3, 5.6 and 5.7 of Appendix F.

Appendix B to the Preamble - Units Allocations

Unit level allocations used to develop the phase II state emissions budgets are presented below. For further discussion of the methodology used to develop these units level allocations see the memorandum entitled “Allocation Adjustment Factors for the Proposed Mercury Trading Rulemaking” in the docket. The same methodology described in the docket memo and used below would be used to develop the 2010 unit level allocations and state budgets.

STATE	**FACILITY NAME**	**Plant ID**	**UNITID**	**Phase II Hg Allocation (ounces)**
AK	Healy	6288	2	65
AL	Gadsden	7	2	60
AL	Gadsden	7	1	73
AL	Charles R Lowman	56	1	112
AL	Widows Creek	50	1	132
AL	Widows Creek	50	4	135
AL	Widows Creek	50	5	144
AL	Gorgas	8	7	145
AL	Widows Creek	50	3	151
AL	Widows Creek	50	2	156
AL	Widows Creek	50	6	162
AL	Gorgas	8	6	166
AL	Barry	3	1	185
AL	Barry	3	2	193
AL	Colbert	47	3	229
AL	Colbert	47	4	231
AL	Colbert	47	1	237
AL	Colbert	47	2	239
AL	Gorgas	8	9	241
AL	Gorgas	8	8	244
AL	Charles R Lowman	56	3	316
AL	E C Gaston	26	4	321
AL	Charles R Lowman	56	2	327
AL	Barry	3	3	331
AL	E C Gaston	26	1	349
AL	E C Gaston	26	2	356
AL	Greene County	10	1	358
AL	Greene County	10	2	363
AL	E C Gaston	26	3	369
AL	Barry	3	4	508
AL	Colbert	47	5	508
AL	Widows Creek	50	7	580

AL	Widows Creek	50	8	607
AL	Gorgas	8	10	884
AL	Barry	3	5	972
AL	E C Gaston	26	5	1022
AL	James H Miller Jr	6002	1	1152
AL	James H Miller Jr	6002	2	1155
AL	James H Miller Jr	6002	3	1218
AL	James H Miller Jr	6002	4	1249
AR	Flint Creek Power Plant	6138	1	925
AR	White Bluff	6009	2	1325
AR	Independence	6641	1	1342
AR	White Bluff	6009	1	1383
AR	Independence	6641	2	1485
AZ	Irvington	126	4	150
AZ	Cholla	113	1	213
AZ	Apache Station	160	2	350
AZ	Apache Station	160	3	355
AZ	Cholla	113	3	505
AZ	Cholla	113	2	521
AZ	Cholla	113	4	680
AZ	Springerville	8223	2	707
AZ	Springerville	8223	1	720
AZ	Coronado Generating Station	6177	U2B	732
AZ	Coronado Generating Station	6177	U1B	741
AZ	Navajo Generating Station	4941	1	1145
AZ	Navajo Generating Station	4941	2	1220
AZ	Navajo Generating Station	4941	3	1223
CA	Rio Bravo Jasmin	10768	gen 1	59
CA	Port Of Stockton District Energy Facility (Posdef)	54238	STG	60
CA	Rio Bravo Poso	10769	Gen 1	60
CA	Mt. Poso Cogeneration Plant	54626	27805-89	64
CA	Stockton Cogen Company	10640	GEN1	108
CA	Ace Cogeneration Plant	10002	10002	161
CO	Arapahoe	465	2	61
CO	Cameo	468	2	80
CO	Martin Drake	492	5	86
CO	Arapahoe	465	1	91
CO	Arapahoe	465	3	106
CO	Martin Drake	492	6	156
CO	Cherokee	469	1	160
CO	Nucla	527	1	163
CO	Cherokee	469	2	176
CO	Arapahoe	465	4	202
CO	Cherokee	469	3	217
CO	Martin Drake	492	7	252
CO	Valmont	477	5	257
CO	Hayden	525	H1	336
CO	Ray D Nixon	8219	1	393
CO	Cherokee	469	4	431
CO	Hayden	525	H2	454

CO	Rawhide Energy Station	6761	101	571
CO	Comanche (470)	470	1	586
CO	Comanche (470)	470	2	621
CO	Craig	6021	C3	732
CO	Craig	6021	C2	831
CO	Craig	6021	C1	845
CO	Pawnee	6248	1	1071
CT	AES Thames	10675	UNITA	131
CT	AES Thames	10675	UNITB	142
CT	Bridgeport Harbor Station	568	BHB3	454
DE	Indian River	594	1	87
DE	Indian River	594	2	94
DE	Edge Moor	593	3	116
DE	Indian River	594	3	161
DE	Edge Moor	593	4	188
DE	Indian River	594	4	290
FL	Scholz Electric Generating Plant	642	1	39
FL	Scholz Electric Generating Plant	642	2	45
FL	Crist Electric Generating Plant	641	4	81
FL	Crist Electric Generating Plant	641	5	103
FL	F J Gannon	646	GB01	127
FL	Cedar Bay Generating Company L.P.	10672	GEN 1B	129
FL	Cedar Bay Generating Company L.P.	10672	GEN 1C	131
FL	Cedar Bay Generating Company L.P.	10672	GEN 1A	132
FL	F J Gannon	646	GB02	136
FL	Central Power And Lime, Inc.	10333	GEN 1	177
FL	F J Gannon	646	GB03	186
FL	Northside	667	1A	187
FL	F J Gannon	646	GB04	210
FL	F J Gannon	646	GB05	228
FL	Northside	667	2A	231
FL	Lansing Smith	643	1	231
FL	Polk	7242	**1	237
FL	Lansing Smith	643	2	282
FL	Deerhaven	663	B2	287
FL	Indiantown Cogeneration Facility	50976	GEN 1	292
FL	Crist Electric Generating Plant	641	6	320
FL	F J Gannon	646	GB06	416
FL	Crystal River	628	1	457
FL	Big Bend	645	BB03	477
FL	Big Bend	645	BB01	489
FL	C D McIntosh	676	3	534
FL	Big Bend	645	BB02	534
FL	Stanton Energy	564	1	583
FL	Stanton Energy	564	2	593
FL	Crystal River	628	2	619
FL	Crist Electric Generating Plant	641	7	638
FL	Big Bend	645	BB04	651
FL	Seminole (136)	136	2	954
FL	Crystal River	628	4	957
FL	St. Johns River Power	207	2	962
FL	Seminole (136)	136	1	968
FL	St. Johns River Power	207	1	1004

FL	Crystal River	628	5	1076
GA	Arkwright	699	1	17
GA	Arkwright	699	2	18
GA	Mitchell	727	2	24
GA	Arkwright	699	4	24
GA	Arkwright	699	3	26
GA	Mitchell	727	1	29
GA	Kraft	733	2	51
GA	Kraft	733	1	55
GA	Yates	728	Y3BR	75
GA	Yates	728	Y1BR	87
GA	Yates	728	Y2BR	94
GA	Mitchell	727	3	104
GA	Yates	728	Y4BR	108
GA	Hammond	708	1	110
GA	Yates	728	Y5BR	117
GA	Kraft	733	3	118
GA	Hammond	708	2	118
GA	Hammond	708	3	119
GA	McIntosh (6124)	6124	1	200
GA	Harllee Branch	709	1	254
GA	Jack McDonough	710	MB1	301
GA	Harllee Branch	709	2	309
GA	Yates	728	Y7BR	322
GA	Yates	728	Y6BR	333
GA	Jack McDonough	710	MB2	336
GA	Harllee Branch	709	3	499
GA	Harllee Branch	709	4	508
GA	Hammond	708	4	511
GA	Bowen	703	2BLR	859
GA	Bowen	703	1BLR	879
GA	Wansley (6052)	6052	2	903
GA	Scherer	6257	1	952
GA	Wansley (6052)	6052	1	965
GA	Scherer	6257	2	1052
GA	Bowen	703	3BLR	1073
GA	Bowen	703	4BLR	1079
GA	Scherer	6257	3	1284
GA	Scherer	6257	4	1549
HI	Aes Hawaii, Inc.	10673	B	147
HI	Aes Hawaii, Inc.	10673	A	149
IA	Lansing	1047	1	1
IA	Lansing	1047	2	2
IA	Dubuque	1046	6	2
IA	Earl F Wisdom	1217	1	11
IA	Streeter Station	1131	7	14
IA	Pella	1175	6	14
IA	Pella	1175	7	15
IA	Sixth Street	1058	4	23
IA	Sixth Street	1058	3	29
IA	Ames	1122	7	29
IA	Sixth Street	1058	2	32
IA	Lansing	1047	3	35

IA	Dubuque	1046	5	38
IA	Sixth Street	1058	5	50
IA	Fair Station	1218	2	50
IA	Dubuque	1046	1	55
IA	Sutherland	1077	1	64
IA	Sutherland	1077	2	64
IA	Council Bluffs	1082	1	81
IA	Prairie Creek	1073	3	83
IA	Ames	1122	8	101
IA	Council Bluffs	1082	2	128
IA	Muscatine	1167	8	138
IA	Sutherland	1077	3	156
IA	Riverside (1081)	1081	9	169
IA	George Neal North	1091	1	226
IA	Prairie Creek	1073	4	229
IA	Milton L Kapp	1048	2	274
IA	Muscatine	1167	9	296
IA	Burlington (IA)	1104	1	333
IA	Lansing	1047	4	376
IA	George Neal North	1091	2	435
IA	George Neal North	1091	3	847
IA	George Neal South	7343	4	1076
IA	Louisa	6664	101	1143
IA	Council Bluffs	1082	3	1236
IA	Ottumwa	6254	1	1243
IL	Meredosia	864	03	20
IL	Meredosia	864	01	22
IL	Grand Tower	862	07	25
IL	Grand Tower	862	08	26
IL	Meredosia	864	02	26
IL	Meredosia	864	04	27
IL	Lakeside	964	7	31
IL	Marion	976	2	32
IL	Lakeside	964	8	32
IL	Marion	976	1	33
IL	Marion	976	3	35
IL	Hutsonville	863	05	63
IL	Hutsonville	863	06	71
IL	Vermilion	897	1	82
IL	Grand Tower	862	09	90
IL	Dallman	963	32	96
IL	Dallman	963	31	98
IL	Hennepin	892	1	101
IL	Wood River	898	4	106
IL	Vermilion	897	2	112
IL	E D Edwards	856	1	130
IL	Waukegan	883	17	167
IL	Meredosia	864	05	191
IL	Will County	884	2	210
IL	Will County	884	1	222
IL	Dallman	963	33	259
IL	Crawford	867	7	268
IL	Marion	976	4	270

IL	E D Edwards	856	2	299
IL	Hennepin	892	2	314
IL	Joliet 29	384	71	324
IL	Coffeen	861	01	332
IL	Wood River	898	5	334
IL	Joliet 29	384	81	335
IL	Joppa Steam	887	4	354
IL	Joppa Steam	887	3	358
IL	Joppa Steam	887	6	362
IL	Joppa Steam	887	5	364
IL	Joppa Steam	887	1	366
IL	E D Edwards	856	3	366
IL	Joppa Steam	887	2	370
IL	Will County	884	3	378
IL	Crawford	867	8	382
IL	Joliet 29	384	82	409
IL	Fisk	886	19	410
IL	Joliet 29	384	72	422
IL	Duck Creek	6016	1	440
IL	Joliet 9	874	5	441
IL	Havana	891	9	479
IL	Waukegan	883	7	482
IL	Waukegan	883	8	529
IL	Powerton	879	61	530
IL	Powerton	879	52	535
IL	Powerton	879	51	536
IL	Powerton	879	62	545
IL	Will County	884	4	584
IL	Coffeen	861	02	589
IL	Kincaid	876	1	670
IL	Baldwin	889	2	705
IL	Baldwin	889	1	713
IL	Kincaid	876	2	714
IL	Newton	6017	2	772
IL	Baldwin	889	3	819
IL	Newton	6017	1	898
IN	Noblesville	1007	3	26
IN	Noblesville	1007	2	26
IN	Noblesville	1007	1	28
IN	Edwardsport	1004	8-1	40
IN	F B Culley Generating Station	1012	1	44
IN	Whitewater Valley	1040	1	45
IN	Edwardsport	1004	7-2	45
IN	Edwardsport	1004	7-1	50
IN	Eagle Valley (H T Pritchard)	991	3	59
IN	Eagle Valley (H T Pritchard)	991	5	61
IN	Eagle Valley (H T Pritchard)	991	4	65
IN	Dean H Mitchell	996	4	84
IN	Whitewater Valley	1040	2	97
IN	Wabash River	1010	2	99
IN	Wabash River	1010	3	102
IN	Eagle Valley (H T Pritchard)	991	6	120
IN	Wabash River	1010	5	122

IN	Harding Street Station (EW Stout)	990	60	125
IN	Dean H Mitchell	996	5	133
IN	Wabash River	1010	4	134
IN	F B Culley Generating Station	1012	2	136
IN	Harding Street Station (EW Stout)	990	50	139
IN	Dean H Mitchell	996	11	143
IN	R Gallagher	1008	1	146
IN	R Gallagher	1008	2	148
IN	R Gallagher	1008	4	153
IN	Tanners Creek	988	U1	158
IN	Dean H Mitchell	996	6	159
IN	R Gallagher	1008	3	159
IN	Tanners Creek	988	U2	164
IN	Frank E Ratts	1043	1SG1	166
IN	Frank E Ratts	1043	2SG1	169
IN	Wabash River	1010	1	174
IN	Tanners Creek	988	U3	218
IN	Bailly	995	7	224
IN	State Line Generating Station (IN)	981	3	288
IN	A B Brown Generating Station	6137	1	302
IN	Clifty Creek	983	6	308
IN	Clifty Creek	983	4	309
IN	Clifty Creek	983	1	313
IN	Clifty Creek	983	2	315
IN	Clifty Creek	983	5	316
IN	Clifty Creek	983	3	322
IN	A B Brown Generating Station	6137	2	334
IN	Petersburg	994	1	341
IN	Wabash River	1010	6	372
IN	Bailly	995	8	394
IN	State Line Generating Station (IN)	981	4	410
IN	F B Culley Generating Station	1012	3	419
IN	Warrick	6705	4	436
IN	R M Schahfer	6085	17	459
IN	Harding Street Station (EW Stout)	990	70	471
IN	R M Schahfer	6085	18	476
IN	Tanners Creek	988	U4	556
IN	R M Schahfer	6085	14	599
IN	Petersburg	994	2	601
IN	Michigan City	997	12	604
IN	Cayuga	1001	2	606
IN	Cayuga	1001	1	650
IN	Gibson	6113	3	717
IN	Petersburg	994	4	734
IN	Gibson	6113	2	742
IN	Merom	6213	1SG1	757
IN	Petersburg	994	3	764
IN	R M Schahfer	6085	15	787
IN	Merom	6213	2SG1	790
IN	Gibson	6113	1	815
IN	Gibson	6113	4	866
IN	Gibson	6113	5	871
IN	Rockport	6166	MB1	2321

IN	Rockport	6166	MB2	2327
KS	Riverton	1239	39	54
KS	Riverton	1239	40	79
KS	Quindaro	1295	1	105
KS	Lawrence Energy Center	1250	3	120
KS	Tecumseh Energy Center	1252	9	142
KS	Quindaro	1295	2	170
KS	Lawrence Energy Center	1250	4	225
KS	Tecumseh Energy Center	1252	10	245
KS	Nearman Creek	6064	N1	471
KS	Lawrence Energy Center	1250	5	535
KS	Holcomb	108	SGU1	643
KS	La Cygne	1241	1	1092
KS	Jeffrey Energy Center	6068	1	1182
KS	Jeffrey Energy Center	6068	2	1284
KS	La Cygne	1241	2	1304
KS	Jeffrey Energy Center	6068	3	1352
KY	Green River	1357	3	10
KY	Henderson I	1372	6	10
KY	Green River	1357	2	11
KY	Green River	1357	1	11
KY	Pineville	1360	3	35
KY	Tyrone	1361	5	70
KY	Robert Reid	1383	R1	80
KY	William C. Dale	1385	3	92
KY	Green River	1357	4	92
KY	William C. Dale	1385	4	99
KY	Green River	1357	5	118
KY	John S. Cooper	1384	1	126
KY	E W Brown	1355	1	128
KY	Shawnee	1379	10	156
KY	E W Brown	1355	2	186
KY	Shawnee	1379	6	190
KY	Shawnee	1379	1	195
KY	Shawnee	1379	4	196
KY	Shawnee	1379	2	197
KY	Shawnee	1379	5	200
KY	Shawnee	1379	9	206
KY	Coleman	1381	C3	208
KY	Cane Run	1363	5	210
KY	Coleman	1381	C1	211
KY	Shawnee	1379	3	211
KY	Coleman	1381	C2	215
KY	Shawnee	1379	7	215
KY	Shawnee	1379	8	216
KY	Cane Run	1363	4	217
KY	Elmer Smith	1374	1	224
KY	HMP&L Station 2	1382	H1	224
KY	HMP&L Station 2	1382	H2	234
KY	Cane Run	1363	6	251
KY	John S. Cooper	1384	2	251
KY	R D Green	6639	G2	338
KY	R D Green	6639	G1	343

KY	Big Sandy	1353	BSU1	347
KY	Elmer Smith	1374	2	393
KY	Mill Creek	1364	2	402
KY	Mill Creek	1364	1	408
KY	H L Spurlock	6041	1	411
KY	E W Brown	1355	3	481
KY	Mill Creek	1364	3	541
KY	Mill Creek	1364	4	568
KY	Ghent	1356	2	593
KY	Ghent	1356	4	622
KY	Ghent	1356	3	628
KY	Trimble County	6071	1	709
KY	Ghent	1356	1	710
KY	D B Wilson	6823	W1	722
KY	East Bend	6018	2	864
KY	Paradise	1378	1	869
KY	H L Spurlock	6041	2	903
KY	Paradise	1378	2	931
KY	Big Sandy	1353	BSU2	1087
KY	Paradise	1378	3	1187
LA	Rodemacher	6190	2	856
LA	R S Nelson	1393	6	942
LA	Big Cajun 2	6055	2B3	1035
LA	Big Cajun 2	6055	2B2	1035
LA	Big Cajun 2	6055	2B1	1053
LA	Dolet Hills	51	1	2621
MA	Salem Harbor	1626	1	118
MA	Salem Harbor	1626	2	132
MA	Somerset	1613	8	163
MA	Salem Harbor	1626	3	206
MA	Mount Tom	1606	1	222
MA	Brayton Point	1619	1	329
MA	Brayton Point	1619	2	331
MA	Brayton Point	1619	3	729
MD	R P Smith	1570	9	15
MD	AES Warrior Run	10678	001	20
MD	R P Smith	1570	11	94
MD	Herbert a Wagner	1554	2	190
MD	Dickerson	1572	1	212
MD	Dickerson	1572	2	219
MD	Dickerson	1572	3	223
MD	C P Crane	1552	1	223
MD	C P Crane	1552	2	259
MD	Herbert a Wagner	1554	3	415
MD	Chalk Point	1571	2	420
MD	Chalk Point	1571	1	424
MD	Morgantown	1573	1	690
MD	Morgantown	1573	2	706
MD	Brandon Shores	602	2	919
MD	Brandon Shores	602	1	928
ME	S.D. Warren Company #2	50447	#21	17
MI	Marysville	1732	9	10
MI	Marysville	1732	11	11

MI	Marysville	1732	12	12
MI	Marysville	1732	10	13
MI	Presque Isle	1769	2	16
MI	Wyandotte	1866	8	25
MI	James De Young	1830	5	39
MI	Eckert Station	1831	3	41
MI	Eckert Station	1831	1	43
MI	Eckert Station	1831	2	46
MI	Wyandotte	1866	7	46
MI	Harbor Beach	1731	1	55
MI	J B Sims	1825	3	75
MI	Presque Isle	1769	3	76
MI	Presque Isle	1769	4	77
MI	Endicott Generating	4259	1	85
MI	Trenton Channel	1745	18	86
MI	Shiras	1843	3	89
MI	Trenton Channel	1745	19	89
MI	Trenton Channel	1745	17	90
MI	Trenton Channel	1745	16	94
MI	Tes Filer City Station	50835	GEN 1	104
MI	Eckert Station	1831	5	113
MI	Eckert Station	1831	4	119
MI	Presque Isle	1769	6	128
MI	Presque Isle	1769	5	131
MI	Eckert Station	1831	6	145
MI	Presque Isle	1769	7	147
MI	Presque Isle	1769	9	153
MI	Presque Isle	1769	8	153
MI	J R Whiting	1723	1	154
MI	J R Whiting	1723	2	156
MI	Erickson	1832	1	177
MI	J R Whiting	1723	3	186
MI	St. Clair	1743	2	206
MI	St. Clair	1743	4	231
MI	St. Clair	1743	1	232
MI	St. Clair	1743	3	239
MI	J C Weadock	1720	7	245
MI	B C Cobb	1695	5	259
MI	B C Cobb	1695	4	265
MI	J C Weadock	1720	8	268
MI	J H Campbell	1710	1	359
MI	Dan E Karn	1702	1	368
MI	River Rouge	1740	2	372
MI	Dan E Karn	1702	2	376
MI	River Rouge	1740	3	376
MI	St. Clair	1743	6	416
MI	J H Campbell	1710	2	452
MI	St. Clair	1743	7	584
MI	Trenton Channel	1745	9A	631
MI	Monroe	1733	2	943
MI	Monroe	1733	3	970
MI	Monroe	1733	4	1076
MI	Monroe	1733	1	1105

MI	Belle River	6034	2	1152
MI	J H Campbell	1710	3	1199
MI	Belle River	6034	1	1223
MN	Minnesota Valley	1918	4	1
MN	Black Dog	1904	2	3
MN	Black Dog	1904	1	3
MN	High Bridge	1912	3	25
MN	High Bridge	1912	4	32
MN	Northeast Station	1961	NEPP	33
MN	Taconite Harbor Energy Center	10075	1	38
MN	Silver Lake	2008	4	43
MN	Taconite Harbor Energy Center	10075	3	53
MN	Taconite Harbor Energy Center	10075	2	55
MN	Syl Laskin	1891	2	95
MN	Syl Laskin	1891	1	97
MN	Hoot Lake	1943	2	102
MN	Clay Boswell	1893	1	112
MN	Clay Boswell	1893	2	115
MN	Riverside (1927)	1927	6	126
MN	Riverside (1927)	1927	7	128
MN	Hoot Lake	1943	3	128
MN	High Bridge	1912	5	146
MN	Black Dog	1904	3	146
MN	High Bridge	1912	6	246
MN	Black Dog	1904	4	267
MN	Riverside (1927)	1927	8	399
MN	Clay Boswell	1893	3	593
MN	Allen S King	1915	1	794
MN	Clay Boswell	1893	4	1010
MN	Sherburne County	6090	2	1178
MN	Sherburne County	6090	1	1215
MN	Sherburne County	6090	3	1586
MO	Columbia	2123	6	9
MO	Columbia	2123	7	12
MO	Blue Valley	2132	3	33
MO	Chamois	2169	2	77
MO	James River	2161	3	84
MO	Sibley	2094	2	84
MO	Sibley	2094	1	89
MO	James River	2161	4	94
MO	Lake Road	2098	6	156
MO	James River	2161	5	182
MO	Meramec	2104	2	186
MO	Meramec	2104	1	187
MO	Meramec	2104	3	231
MO	Montrose	2080	1	271
MO	Montrose	2080	2	280
MO	Montrose	2080	3	295
MO	Asbury	2076	1	312
MO	Thomas Hill	2168	MB1	345
MO	Meramec	2104	4	384
MO	Southwest	6195	1	394
MO	Sikeston	6768	1	509

MO	Thomas Hill	2168	MB2	549
MO	Sibley	2094	3	585
MO	Sioux	2107	1	618
MO	Sioux	2107	2	638
MO	Hawthorn	2079	5A	809
MO	Labadie	2103	4	895
MO	Rush Island	6155	1	904
MO	Labadie	2103	1	930
MO	Rush Island	6155	2	931
MO	New Madrid	2167	1	948
MO	Labadie	2103	2	958
MO	Labadie	2103	3	1002
MO	New Madrid	2167	2	1031
MO	Iatan	6065	1	1134
MO	Thomas Hill	2168	MB3	1303
MS	R D Morrow	6061	2	259
MS	R D Morrow	6061	1	263
MS	Watson Electric Generating Plant	2049	4	325
MS	Red Hills Generation Facility	55076	AA002	329
MS	Red Hills Generation Facility	55076	AA001	355
MS	Watson Electric Generating Plant	2049	5	677
MS	Daniel Electric Generating Plant	6073	2	712
MS	Daniel Electric Generating Plant	6073	1	738
MT	Colstrip Energy Limited Partnership	10784	GEN 1	96
MT	Lewis & Clark	6089	B1	253
MT	J E Corette	2187	2	288
MT	Colstrip	6076	1	620
MT	Colstrip	6076	2	651
MT	Colstrip	6076	3	1342
MT	Colstrip	6076	4	1475
NC	Elizabethtown Power	10380	UNIT2	11
NC	Elizabethtown Power	10380	UNIT1	11
NC	Lumberton Power	10382	UNIT1	13
NC	Lumberton Power	10382	UNIT2	21
NC	Buck	2720	6	23
NC	Buck	2720	5	24
NC	Cliffside	2721	1	25
NC	Buck	2720	7	25
NC	Cliffside	2721	2	26
NC	Cliffside	2721	4	36
NC	Cliffside	2721	3	41
NC	Dwayne Collier Battle Cogeneration Facility	10384	1B	43
NC	Dwayne Collier Battle Cogeneration Facility	10384	2A	44
NC	Dan River	2723	1	44
NC	Dwayne Collier Battle Cogeneration Facility	10384	2B	44
NC	W H Weatherspoon	2716	2	46
NC	W H Weatherspoon	2716	1	46
NC	Dan River	2723	2	46
NC	Dwayne Collier Battle Cogeneration	10384	1A	47

	Facility			
NC	Tobaccoville	50221	GEN 1	50
NC	Tobaccoville	50221	GEN 2	50
NC	Westmoreland-Lg&E Partners Roanoke Valley Ii	54755	2	70
NC	W H Weatherspoon	2716	3	73
NC	Riverbend	2732	8	75
NC	Lee	2709	2	78
NC	Lee	2709	1	79
NC	Riverbend	2732	7	79
NC	L V Sutton	2713	1	80
NC	L V Sutton	2713	2	84
NC	Dan River	2723	3	112
NC	Buck	2720	8	132
NC	Riverbend	2732	10	132
NC	Riverbend	2732	9	134
NC	Cape Fear	2708	5	142
NC	Buck	2720	9	152
NC	G G Allen	2718	2	154
NC	G G Allen	2718	1	156
NC	Cape Fear	2708	6	172
NC	Westmoreland-Lg&E Partners Roanoke Valley I	54035	1	201
NC	Asheville	2706	2	238
NC	Lee	2709	3	249
NC	Asheville	2706	1	255
NC	G G Allen	2718	5	259
NC	G G Allen	2718	3	271
NC	G G Allen	2718	4	278
NC	L V Sutton	2713	3	372
NC	Roxboro	2712	4B	376
NC	Roxboro	2712	4A	405
NC	Roxboro	2712	3A	424
NC	Roxboro	2712	3B	426
NC	Roxboro	2712	1	427
NC	Marshall	2727	1	448
NC	Marshall	2727	2	464
NC	Mayo	6250	1B	479
NC	Mayo	6250	1A	501
NC	Cliffside	2721	5	616
NC	Marshall	2727	3	752
NC	Marshall	2727	4	753
NC	Roxboro	2712	2	793
NC	Belews Creek	8042	2	1408
NC	Belews Creek	8042	1	1430
ND	Stanton	2824	10	267
ND	R M Heskett	2790	B2	327
ND	Stanton	2824	1	538
ND	Leland Olds	2817	1	1003
ND	Milton R Young	2823	B1	1167
ND	Coyote	8222	B1	1974
ND	Leland Olds	2817	2	1985
ND	Antelope Valley	6469	B2	2192

ND	Antelope Valley	6469	B1	2210
ND	Milton R Young	2823	B2	2317
ND	Coal Creek	6030	2	2755
ND	Coal Creek	6030	1	2926
NE	Lon D Wright Power Plant	2240	8	99
NE	North Omaha	2291	1	120
NE	Gerald Whelan Energy Center	60	1	147
NE	North Omaha	2291	3	158
NE	North Omaha	2291	2	168
NE	Platte	59	1	172
NE	Sheldon	2277	1	200
NE	Sheldon	2277	2	203
NE	North Omaha	2291	4	212
NE	North Omaha	2291	5	283
NE	Nebraska City	6096	1	1093
NE	Gerald Gentleman Station	6077	2	1210
NE	Gerald Gentleman Station	6077	1	1216
NH	Schiller	2367	6	65
NH	Schiller	2367	5	71
NH	Schiller	2367	4	74
NH	Merrimack	2364	1	182
NH	Merrimack	2364	2	418
NJ	Carneys Point	10566	1002	89
NJ	Deepwater	2384	8	94
NJ	Carneys Point	10566	1001	105
NJ	B L England	2378	1	136
NJ	Logan Generating Plant	10043	1001	162
NJ	B L England	2378	2	167
NJ	Mercer Generating Station	2408	2	277
NJ	Mercer Generating Station	2408	1	291
NJ	Hudson	2403	2	600
NM	Four Corners	2442	1	362
NM	Four Corners	2442	2	369
NM	Four Corners	2442	3	457
NM	Prewitt Escalante Generating Statio	87	1	492
NM	San Juan	2451	1	637
NM	San Juan	2451	2	650
NM	San Juan	2451	3	990
NM	San Juan	2451	4	1014
NM	Four Corners	2442	4	1346
NM	Four Corners	2442	5	1375
NV	Reid Gardner	2324	3	185
NV	Reid Gardner	2324	1	186
NV	Reid Gardner	2324	2	192
NV	North Valmy	8224	1	324
NV	Reid Gardner	2324	4	395
NV	North Valmy	8224	2	407
NV	Mohave	2341	1	910
NV	Mohave	2341	2	971
NY	AES Hickling	2529	2	9
NY	AES Hickling	2529	1	10
NY	AES Jennison	2531	2	10
NY	AES Jennison	2531	1	10

NY	S A Carlson	2682	11	11
NY	S A Carlson	2682	10	12
NY	S A Carlson	2682	9	14
NY	AES Jennison	2531	3	17
NY	AES Jennison	2531	4	17
NY	S A Carlson	2682	12	21
NY	Black River Power Generation	10464	E0001	30
NY	Black River Power Generation	10464	E0002	30
NY	Black River Power Generation	10464	E0003	30
NY	AES Hickling	2529	4	32
NY	AES Hickling	2529	3	32
NY	AES Greenidge	2527	5	35
NY	AES Greenidge	2527	4	35
NY	AES Westover (Goudey)	2526	12	35
NY	AES Westover (Goudey)	2526	11	36
NY	Rochester 7 - Russell Station	2642	1	55
NY	WPS Empire State, Inc Niagara Falls	50202	1	58
NY	Rochester 3 - Beebee Station	2640	12	67
NY	Rochester 7 - Russell Station	2642	2	72
NY	Rochester 7 - Russell Station	2642	3	72
NY	Huntley Power	2549	63	78
NY	Huntley Power	2549	64	90
NY	Huntley Power	2549	65	97
NY	Rochester 7 - Russell Station	2642	4	99
NY	Huntley Power	2549	66	106
NY	AES Westover (Goudey)	2526	13	120
NY	Dunkirk	2554	1	132
NY	Dunkirk	2554	2	142
NY	AES Greenidge	2527	6	155
NY	Dynegy Danskammer	2480	3	157
NY	Dunkirk	2554	3	211
NY	Lovett	2629	4	212
NY	Lovett	2629	5	219
NY	AES Cayuga (Milliken)	2535	2	229
NY	AES Cayuga (Milliken)	2535	1	231
NY	Dunkirk	2554	4	233
NY	Huntley Power	2549	67	246
NY	Huntley Power	2549	68	259
NY	Dynegy Danskammer	2480	4	327
NY	AES Somerset (Kintigh)	6082	1	943
OH	R E Burger	2864	6	11
OH	R E Burger	2864	5	11
OH	Ashtabula	2835	8	13
OH	O H Hutchings	2848	H-1	16
OH	Ashtabula	2835	10	16
OH	O H Hutchings	2848	H-2	16
OH	Ashtabula	2835	11	23
OH	Miami Fort	2832	5-2	36
OH	Miami Fort	2832	5-1	36
OH	O H Hutchings	2848	H-5	38
OH	O H Hutchings	2848	H-4	38
OH	O H Hutchings	2848	H-3	38
OH	O H Hutchings	2848	H-6	40

OH	Hamilton Municipal Power Plant	2917	9	58
OH	Richard Gorsuch	7286	1	85
OH	Richard Gorsuch	7286	2	86
OH	Avon Lake Power Plant	2836	10	89
OH	Richard Gorsuch	7286	4	90
OH	Richard Gorsuch	7286	3	91
OH	Picway	2843	9	93
OH	Conesville	2840	1	124
OH	Conesville	2840	2	124
OH	Niles	2861	2	125
OH	Eastlake	2837	1	127
OH	Walter C Beckjord	2830	2	129
OH	Walter C Beckjord	2830	1	130
OH	Eastlake	2837	2	131
OH	Eastlake	2837	3	136
OH	Conesville	2840	3	136
OH	Lake Shore	2838	18	137
OH	Niles	2861	1	137
OH	R E Burger	2864	8	172
OH	Bay Shore	2878	3	177
OH	Muskingum River	2872	2	177
OH	Bay Shore	2878	1	181
OH	Bay Shore	2878	2	183
OH	Walter C Beckjord	2830	3	184
OH	R E Burger	2864	7	198
OH	Muskingum River	2872	1	201
OH	Muskingum River	2872	3	206
OH	Muskingum River	2872	4	207
OH	Walter C Beckjord	2830	4	223
OH	Eastlake	2837	4	225
OH	W H Sammis	2866	2	241
OH	W H Sammis	2866	1	244
OH	W H Sammis	2866	3	247
OH	Ashtabula	2835	7	248
OH	Miami Fort	2832	6	250
OH	W H Sammis	2866	4	251
OH	Kyger Creek	2876	5	269
OH	Kyger Creek	2876	2	271
OH	Kyger Creek	2876	4	273
OH	Kyger Creek	2876	3	273
OH	Kyger Creek	2876	1	281
OH	Bay Shore	2878	4	283
OH	Walter C Beckjord	2830	5	288
OH	W H Sammis	2866	5	374
OH	Conesville	2840	5	432
OH	Conesville	2840	6	435
OH	Walter C Beckjord	2830	6	532
OH	Cardinal	2828	1	562
OH	Eastlake	2837	5	591
OH	Cardinal	2828	2	630
OH	J M Stuart	2850	3	646
OH	Miami Fort	2832	8	646
OH	Avon Lake Power Plant	2836	12	680

OH	Miami Fort	2832	7	680
OH	Muskingum River	2872	5	689
OH	Cardinal	2828	3	695
OH	J M Stuart	2850	4	707
OH	J M Stuart	2850	1	711
OH	J M Stuart	2850	2	722
OH	W H Sammis	2866	7	726
OH	Conesville	2840	4	727
OH	W H Sammis	2866	6	766
OH	Killen Station	6031	2	919
OH	Gen J M Gavin	8102	1	1573
OH	W H Zimmer	6019	1	1667
OH	Gen J M Gavin	8102	2	1700
OK	Aes Shady Point, Inc.	10671	Gen 2	254
OK	Aes Shady Point, Inc.	10671	Gen 1	260
OK	Hugo	6772	1	732
OK	Muskogee	2952	4	796
OK	Grand River Dam Authority	165	1	834
OK	Sooner	6095	2	843
OK	Muskogee	2952	6	861
OK	Northeastern	2963	3314	878
OK	Muskogee	2952	5	883
OK	Grand River Dam Authority	165	2	902
OK	Northeastern	2963	3313	924
OK	Sooner	6095	1	952
OR	Boardman	6106	1SG	948
PA	Seward	3130	12	24
PA	Willamette Industries	54638	040	28
PA	Willamette Industries	54638	041	28
PA	Seward	3130	14	30
PA	AES Beaver Valley Partners	10676	035	41
PA	Piney Creek Power Plant	54144	031	55
PA	Johnsonburg Mill	54638	54638	56
PA	Sunbury	3152	2A	59
PA	Sunbury	3152	1B	61
PA	Sunbury	3152	2B	62
PA	Westwood	50611	031	62
PA	Hunlock Power Station	3176	6	67
PA	Sunbury	3152	1A	68
PA	Panther Creek Energy Facility	50776	1	72
PA	Panther Creek Energy Facility	50776	2	72
PA	AES Beaver Valley Partners	10676	033	72
PA	AES Beaver Valley Partners	10676	034	74
PA	Gilberton Power Company	10113	031	75
PA	Gilberton Power Company	10113	032	75
PA	Scrubgrass Generating Plant	50974	1	76
PA	Scrubgrass Generating Plant	50974	2	76
PA	Cambria Cogen	10641	1	76
PA	Cambria Cogen	10641	2	76
PA	Titus	3115	2	81
PA	Titus	3115	3	84
PA	Titus	3115	1	84
PA	Foster Wheeler Mt. Carmel	10343	SG-101	84

PA	AES Beaver Valley Partners	10676	032	86
PA	Wheelabrator - Frackville	50879	GEN1	91
PA	Northeastern Power Company	50039	031	96
PA	Ebensburg Power Company	10603	031	98
PA	New Castle	3138	3	108
PA	Elrama	3098	3	110
PA	Elrama	3098	1	113
PA	New Castle	3138	4	116
PA	Elrama	3098	2	122
PA	Martins Creek	3148	1	139
PA	Martins Creek	3148	2	141
PA	Sunbury	3152	3	141
PA	Sunbury	3152	4	143
PA	Colver Power Project	10143	AAB01	146
PA	Portland	3113	1	150
PA	Shawville	3131	1	151
PA	New Castle	3138	5	152
PA	Northampton Generating Plant	50888	NGC01	154
PA	Shawville	3131	2	160
PA	Seward	3130	15	172
PA	St. Nicholas Cogeneration Project	54634	1	173
PA	Cromby	3159	1	194
PA	Shawville	3131	3	203
PA	Armstrong	3178	2	209
PA	Portland	3113	2	211
PA	Shawville	3131	4	212
PA	Armstrong	3178	1	213
PA	Elrama	3098	4	295
PA	Mitchell	3181	33	311
PA	Brunner Island	3140	1	313
PA	Eddystone	3161	1	322
PA	Eddystone	3161	2	346
PA	Brunner Island	3140	2	389
PA	Hatfields Ferry	3179	2	592
PA	Hatfields Ferry	3179	1	628
PA	Hatfields Ferry	3179	3	660
PA	Cheswick	8226	1	665
PA	Homer City	3122	2	795
PA	Brunner Island	3140	3	804
PA	Homer City	3122	3	821
PA	Montour	3149	2	825
PA	Montour	3149	1	856
PA	Homer City	3122	1	859
PA	Bruce Mansfield	6094	2	922
PA	Bruce Mansfield	6094	1	928
PA	Bruce Mansfield	6094	3	950
PA	Keystone	3136	1	1147
PA	Keystone	3136	2	1168
PA	Conemaugh	3118	2	1194
PA	Conemaugh	3118	1	1202
SC	W S Lee	3264	1	60
SC	W S Lee	3264	2	68
SC	Urquhart	3295	URQ1	76

SC	Urquhart	3295	URQ2	80
SC	Dolphus M Grainger	3317	2	84
SC	Dolphus M Grainger	3317	1	91
SC	Urquhart	3295	URQ3	116
SC	W S Lee	3264	3	117
SC	Canadys Steam	3280	CAN1	123
SC	Canadys Steam	3280	CAN2	129
SC	McMeekin	3287	MCM1	161
SC	Canadys Steam	3280	CAN3	163
SC	McMeekin	3287	MCM2	165
SC	H B Robinson	3251	1	184
SC	Jefferies	3319	3	186
SC	Jefferies	3319	4	195
SC	Winyah	6249	1	361
SC	Winyah	6249	2	371
SC	Winyah	6249	4	373
SC	Wateree	3297	WAT1	387
SC	Wateree	3297	WAT2	389
SC	Winyah	6249	3	403
SC	Cope Station	7210	COP1	575
SC	Cross	130	1	729
SC	Cross	130	2	810
SC	Williams	3298	WIL1	841
SD	Big Stone	6098	1	899
TN	Johnsonville	3406	5	149
TN	Johnsonville	3406	6	151
TN	Johnsonville	3406	3	161
TN	Johnsonville	3406	10	162
TN	Johnsonville	3406	4	163
TN	Johnsonville	3406	1	164
TN	Johnsonville	3406	7	166
TN	Johnsonville	3406	2	168
TN	Kingston	3407	1	179
TN	Johnsonville	3406	8	181
TN	Johnsonville	3406	9	185
TN	Kingston	3407	3	189
TN	Kingston	3407	2	190
TN	Kingston	3407	4	191
TN	John Sevier	3405	1	239
TN	Kingston	3407	7	240
TN	John Sevier	3405	2	242
TN	Kingston	3407	9	245
TN	Kingston	3407	6	251
TN	Kingston	3407	8	253
TN	Kingston	3407	5	259
TN	John Sevier	3405	4	263
TN	John Sevier	3405	3	267
TN	Allen	3393	1	299
TN	Allen	3393	3	327
TN	Allen	3393	2	332
TN	Gallatin	3403	2	368
TN	Gallatin	3403	1	371
TN	Gallatin	3403	3	408

TN	Gallatin	3403	4	422
TN	Bull Run	3396	1	1034
TN	Cumberland	3399	1	1825
TN	Cumberland	3399	2	2042
TX	TNP One	7030	U1	675
TX	Harrington Station	6193	061B	711
TX	Harrington Station	6193	062B	716
TX	Harrington Station	6193	063B	735
TX	TNP One	7030	U2	738
TX	Gibbons Creek	6136	1	745
TX	J T Deely	6181	1	767
TX	J T Deely	6181	2	778
TX	Sam Seymour	6179	3	823
TX	Coleto Creek	6178	1	903
TX	Welsh Power Plant	6139	3	955
TX	Tolk Station	6194	171B	966
TX	Sam Seymour	6179	1	970
TX	Tolk Station	6194	172B	984
TX	Welsh Power Plant	6139	1	987
TX	Welsh Power Plant	6139	2	990
TX	J K Spruce	7097	**1	1006
TX	Sam Seymour	6179	2	1014
TX	W A Parish	3470	WAP8	1050
TX	W A Parish	3470	WAP7	1086
TX	W A Parish	3470	WAP6	1276
TX	W A Parish	3470	WAP5	1301
TX	Oklaunion Power Station	127	1	1353
TX	San Miguel	6183	SM-1	2040
TX	Monticello	6147	1	2434
TX	Big Brown	3497	2	2435
TX	Monticello	6147	2	2545
TX	Big Brown	3497	1	2596
TX	Monticello	6147	3	2599
TX	H W Pirkey Power Plant	7902	1	2694
TX	Sandow	6648	4	2871
TX	Limestone	298	LIM2	3260
TX	Martin Lake	6146	1	3337
TX	Martin Lake	6146	2	3433
TX	Martin Lake	6146	3	3490
TX	Limestone	298	LIM1	3525
UT	Sunnyside Cogeneration Associates	50951	GEN 1	90
UT	Carbon	3644	1	119
UT	Carbon	3644	2	175
UT	Hunter (Emery)	6165	3	634
UT	Huntington	8069	1	642
UT	Hunter (Emery)	6165	1	646
UT	Huntington	8069	2	657
UT	Hunter (Emery)	6165	2	678
UT	Bonanza	7790	1-1	746
UT	Intermountain	6481	1SGA	1339
UT	Intermountain	6481	2SGA	1429
VA	Hopewell Power Station	10771	1	9
VA	Hopewell Power Station	10771	2	9

VA	Altavista Power Station	10773	1	28
VA	Altavista Power Station	10773	2	28
VA	Cogentrix of Richmond	54081	BLR04B	31
VA	Cogentrix of Richmond	54081	BLR03B	31
VA	Southampton Power Station	10774	1	32
VA	Cogentrix of Richmond	54081	BLR04A	32
VA	Southampton Power Station	10774	2	32
VA	Cogentrix of Richmond	54081	BLR03A	33
VA	Cogentrix of Richmond	54081	BLR01B	44
VA	Cogentrix of Richmond	54081	BLR01A	44
VA	Cogentrix of Richmond	54081	BLR02A	45
VA	Cogentrix of Richmond	54081	BLR02B	45
VA	Mecklenburg Cogeneration Facility	52007	1	55
VA	Glen Lyn	3776	51	57
VA	Glen Lyn	3776	52	63
VA	Mecklenburg Cogeneration Facility	52007	2	69
VA	Potomac River	3788	1	79
VA	Potomac River	3788	2	81
VA	Bremo	3796	3	99
VA	Potomac River	3788	5	121
VA	Potomac River	3788	4	130
VA	Possum Point Power Station	3804	3	131
VA	Potomac River	3788	3	133
VA	Chesterfield	3797	3	133
VA	Chesapeake	3803	1	170
VA	Chesapeake	3803	2	175
VA	Birchwood Power Facility	54304	01	182
VA	Bremo	3796	4	203
VA	Yorktown	3809	1	203
VA	Chesterfield	3797	4	211
VA	Chesapeake	3803	3	214
VA	Yorktown	3809	2	219
VA	Clinch River	3775	2	280
VA	Glen Lyn	3776	6	281
VA	Clinch River	3775	1	281
VA	Possum Point Power Station	3804	4	282
VA	Clinch River	3775	3	307
VA	Chesapeake	3803	4	310
VA	Chesterfield	3797	5	406
VA	Clover Power Station	7213	1	651
VA	Clover Power Station	7213	2	668
VA	Chesterfield	3797	6	837
WA	Centralia	3845	BW21	1224
WA	Centralia	3845	BW22	1243
WI	Stoneman	4146	B1	5
WI	Stoneman	4146	B2	5
WI	Alma	4140	B2	10
WI	Alma	4140	B1	11
WI	Alma	4140	B3	12
WI	Manitowoc	4125	7	20
WI	Blount Street	3992	7	20
WI	Manitowoc	4125	6	20
WI	Manitowoc	4125	8	26

WI	Bay Front	3982	5	30
WI	Pulliam	4072	3	31
WI	Blount Street	3992	8	42
WI	Pulliam	4072	4	43
WI	Blount Street	3992	9	50
WI	Alma	4140	B4	57
WI	Port Washington	4040	1	69
WI	Port Washington	4040	4	73
WI	Port Washington	4040	2	76
WI	Alma	4140	B5	77
WI	Valley (Wepco)	4042	1	77
WI	Port Washington	4040	3	78
WI	Valley (Wepco)	4042	2	78
WI	Rock River	4057	1	79
WI	Valley (Wepco)	4042	3	87
WI	Valley (Wepco)	4042	4	88
WI	Rock River	4057	2	88
WI	Pulliam	4072	5	88
WI	Weston	4078	1	104
WI	Edgewater (4050)	4050	3	115
WI	Pulliam	4072	6	135
WI	Weston	4078	2	160
WI	Pulliam	4072	7	166
WI	Nelson Dewey	4054	1	169
WI	Nelson Dewey	4054	2	172
WI	Pulliam	4072	8	246
WI	South Oak Creek	4041	5	317
WI	South Oak Creek	4041	6	332
WI	Genoa	4143	1	411
WI	Edgewater (4050)	4050	4	449
WI	South Oak Creek	4041	8	461
WI	South Oak Creek	4041	7	466
WI	J P Madgett	4271	B1	575
WI	Weston	4078	3	676
WI	Edgewater (4050)	4050	5	680
WI	Columbia	8023	1	963
WI	Columbia	8023	2	979
WI	Pleasant Prairie	6170	2	1164
WI	Pleasant Prairie	6170	1	1206
WV	Rivesville	3945	7	28
WV	North Branch Power Station	7537	1B	41
WV	North Branch Power Station	7537	1A	42
WV	Morgantown Energy Facility	10743	1	53
WV	Morgantown Energy Facility	10743	2	53
WV	Albright	3942	2	70
WV	Albright	3942	1	71
WV	Willow Island	3946	1	79
WV	Grant Town Power Plant	10151	1A	82
WV	Grant Town Power Plant	10151	1B	82
WV	Rivesville	3945	8	84
WV	Phil Sporn	3938	21	160
WV	Phil Sporn	3938	31	170
WV	Phil Sporn	3938	11	171
WV	Phil Sporn	3938	41	178

WV	Albright	3942	3	183
WV	Willow Island	3946	2	211
WV	Kanawha River	3936	1	238
WV	Kanawha River	3936	2	240
WV	Kammer	3947	1	252
WV	Kammer	3947	2	258
WV	Kammer	3947	3	262
WV	Phil Sporn	3938	51	443
WV	Fort Martin	3943	2	680
WV	Fort Martin	3943	1	698
WV	Pleasants	6004	2	742
WV	Mount Storm Power Station	3954	2	761
WV	Pleasants	6004	1	768
WV	Mount Storm Power Station	3954	3	798
WV	Mitchell	3948	1	810
WV	Mount Storm Power Station	3954	1	849
WV	Mitchell	3948	2	861
WV	John E Amos	3935	2	888
WV	Harrison	3944	2	893
WV	John E Amos	3935	1	904
WV	Harrison	3944	1	910
WV	Harrison	3944	3	942
WV	John E Amos	3935	3	1313
WV	Mountaineer (1301)	6264	1	1447
WY	Neil Simpson II	7504	001	210
WY	Dave Johnston	4158	BW42	246
WY	Dave Johnston	4158	BW41	247
WY	Naughton	4162	1	343
WY	Naughton	4162	2	430
WY	Dave Johnston	4158	BW43	503
WY	Naughton	4162	3	669
WY	Dave Johnston	4158	BW44	835
WY	Wyodak	6101	BW91	869
WY	Jim Bridger	8066	BW73	1049
WY	Jim Bridger	8066	BW74	1057
WY	Laramie River	6204	2	1063
WY	Jim Bridger	8066	BW71	1089
WY	Laramie River	6204	1	1095
WY	Jim Bridger	8066	BW72	1149
WY	Laramie River	6204	3	1161

For the reasons set forth in the preamble, parts 60, 72, and 75 of chapter 1 of title 40 of the Code of Federal Regulations are proposed to be amended as follows:

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

Authority: 42 U.S.C. 7401, 7403, 7426, and 7601.

2. Section 60.21(f) should be amended to read as follows (new language in bold):

Emission standard means a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, **establishing an allowance system** or prescribing equipment specifications for control of air pollution emissions.

3. Section 60.21 should be amended to a new paragraph (k), to read as follows:

(k) *Allowance system* means a control program under which the owner or operator of each designated facility is required to hold an authorization for each specified unit of designated pollutant emitted from that facility during a specified period.

4. Section 60.24(b)(1) should be amended to read as follows (new language in bold):

Emission standards shall **either be based on an allowance system or** prescribe allowable rates of emissions except when it is clearly impracticable.

5. Part 60 Subpart HHHH is added to read as follows:

SUBPART HHHH– EMISSION GUIDELINES AND COMPLIANCE TIMES FOR COAL-FIRED ELECTRIC STEAM GENERATING UNITS

Hg Budget Trading Program General Provisions

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60.4174 Recordkeeping and reporting.

60.4175 Petitions.

60.4176 Additional requirements to provide heat input data.

Hg Budget Trading Program General Provisions

§60.4101 Purpose.

This subpart establishes the model rule comprising general provisions and the applicability, permitting, allowance, excess emissions, and monitoring for the state Hg Budget Trading Program, under section 111 of the CAA and §52.34 of this chapter, as a means of reducing national mercury emissions.

§60.4102 Definitions.

The terms used in this subpart shall have the meanings set forth in this section as follows:

Account number means the identification number given by the Administrator to each Hg Allowance Tracking System account.

Adjusted baseline heat input means, with regard to a unit, the unit’s baseline heat input multiplied by:

(1) 1.0, for the portion of the baseline heat input that is the unit’s average annual combustion of bituminous during the years on which the unit’s baseline heat input is based;

(2) 3.0, for the portion of the baseline heat input that is the unit’s average annual combustion of lignite during the years on which the unit’s baseline heat input is based;

(3) 1.25, for the portion of the baseline heat input that is the unit’s average annual combustion of subbituminous during the years on which the unit’s baseline heat input is based;

(4) 1.0, for the portion of the baseline heat input that is not covered by (1), (2), or (3) or for the entire baseline heat input if such baseline heat input is not based on the unit’s heat input in specified years; and

(5) 1.0, for the portion of the baseline heat input that is the new unit’s average annual combustion during the years on which the new unit’s baseline heat input is based.

Administrator means the Administrator of the United States Environmental Protection Agency or the Administrator’s duly authorized representative.

Allocate or allocation means, with regard to Hg allowances, the determination by the Administrator of the number of Hg allowances to be initially credited to a Hg Budget unit or an allocation set-aside.

Automated data acquisition and handling system or DAHS means that component of the CEMS, or other emissions monitoring system approved for use under §§60.4170 through 60.4176, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by §§60.4170 through 60.4176.

Boiler means an enclosed fossil or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

Clean Air Act means the Clean Air Act, 42 U.S.C. 7401, et seq., as amended by Pub. L. No. 101-549 (November 15, 1990).

Coal means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite.

Coal-derived fuel means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

Coal-fired with regard to a unit means, combusting coal or any coal-derived fuel alone or in combination with any amount of any other fuel in any year.

Combustion unit means a coal-fired stationary boiler or combustion turbine.

Commence commercial operation means, with regard to a unit that serves a generator, to have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation. Except as provided in §60.4105 of, for a unit that is a Hg Budget unit under §60.4104(a) on the date the unit commences commercial operation, such date shall remain the unit's date of commencement of commercial operation even if the unit is subsequently modified, reconstructed, or repowered. Except as provided in §60.4105, for a unit that is not a Hg Budget unit under §60.4104(a) on the date the unit commences commercial operation, the date the unit becomes a Hg Budget unit under §60.4104(a) shall be the unit's date of commencement of commercial operation.

Commence operation means to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber. Except as provided in §60.4105 for a unit that is a Hg Budget unit under §60.4104(a) on the date of commencement of operation, such date shall remain the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered. Except as provided in §60.4105, for a unit that is not a Hg Budget unit under §60.4104(a) on the date of commencement of operation, the date the unit becomes a Hg Budget unit under §60.4104(a) shall be the unit's date of commencement of operation.

Common stack means a single flue through which emissions from two or more units are exhausted.

Compliance account means a Hg Allowance Tracking System account, established by the Administrator for a Hg Budget source under §§60.4150 through 60.4157, in which the Hg allowance allocations for the source are initially recorded and in which are held Hg allowances available for use by the source for a control period for the purpose of meeting the source's Hg Budget emissions limitation.

Continuous emission monitoring system or CEMS means the equipment required under §§60.4170 through 60.4176 to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of mercury (Hg) emissions, stack gas volumetric flow rate or stack gas moisture content, in a manner consistent with part 75 of this chapter. The following systems are the principal types of continuous emission monitoring systems required under §§60.4170 through 60.4176:

(1) A flow monitoring system, consisting of a stack flow rate monitor and an automated DAHS. A flow monitoring system provides a permanent, continuous record of stack gas

volumetric flow rate, in units of standard cubic feet per hour (scfh);

(2) A Hg concentration monitoring system, consisting of a Hg pollutant concentration monitor and an automated DAHS. A Hg concentration monitoring system provides a permanent, continuous record of Hg emissions in units of micrograms per dry standard cubic meter (μg/dscm);

(3) A Hg emission rate (or Hg-diluent) monitoring system, consisting of a Hg pollutant concentration monitor, a diluent gas (CO_2 or O_2) monitor, and an automated DAHS. A Hg-diluent monitoring system provides a permanent, continuous record of: Hg concentration in units of μg/dscm, diluent gas concentration in units of percent CO_2 or O_2 (percent CO_2 or O_2), and Hg emission rate in units of pounds per trillion British thermal units (lbs/10^{12} Btu); and

(4) A moisture monitoring system, as defined in §75.11(b)(2) of this chapter. A moisture monitoring system provides a permanent, continuous record of the stack gas moisture content, in units of percent H_2O (% H_2O).

Control period means the period beginning January 1 of a year and ending on December 31 of the same year, inclusive.

Emissions means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Administrator by the Hg authorized account representative and as determined by the Administrator in accordance with §§60.4170 through 60.4176.

Energy Information Administration means the Energy Information Administration of the United States Department of Energy.

Excess emissions means any ounces of mercury emitted by the Hg Budget units at a Hg Budget source during a control period that exceeds the Hg Budget emissions limitation for the source.

General account means a Hg Allowance Tracking System account, established under this subpart, that is not a compliance account.

Generator means a device that produces electricity.

Heat input means, with regard to a specified period to time, the product (in mmBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Administrator by the Hg authorized account representative and as determined by the Administrator in accordance with this subpart. Heat input does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

Heat input rate means the amount of heat input (in mmBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in mmBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

Hg allowance means a limited authorization by the Administrator under the Hg Budget Trading Program to emit up to one ounce of mercury during the control period of the specified year or of any year thereafter. No provision of the Hg Budget Trading Program, the Hg Budget permit application, the Hg Budget permit, or an exemption under §60.4105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization, which does not constitute a property right.

Hg allowance deduction or deduct Hg allowances means the permanent withdrawal of Hg allowances by the Administrator from a Hg Allowance Tracking System compliance account to account for the number of ounces of Hg emissions from all Hg Budget units at a Hg Budget source for a control period, determined in accordance with §§60.4150 through 60.4157 and §§60.4170 through 60.4176.

Hg allowances held or hold Hg allowances means the Hg allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with

§§60.4150 through 60.4162, in a Hg Allowance Tracking System account.

Hg Allowance Tracking System (MATS) means the system by which the Administrator records allocations, deductions, and transfers of Hg allowances under the Hg Budget Trading Program.

Hg Allowance Tracking System account means an account in the Hg Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of Hg allowances.

Hg allowance transfer deadline means midnight of March 1 or, if March 1 is not a business day, midnight of the first business day thereafter and is the deadline by which Hg allowances must be submitted for recordation in a Hg Budget source's compliance account, in order to meet the source's Hg Budget emissions limitation for the control period immediately preceding such deadline.

Hg authorized account representative means, for a Hg Budget source or Hg Budget unit at the source, the natural person who is authorized by the owners and operators of the source and all Hg Budget units at the source, in accordance with this subpart, to represent and legally bind each owner and operator in matters pertaining to the Hg Budget Trading Program or, for a general account, the natural person who is authorized, in accordance with this subpart, to transfer or otherwise dispose of Hg allowances held in the general account.

Hg Budget emissions limitation means, for a Hg Budget source, the ounce equivalent of the Hg allowances available for compliance deduction for the source under §60.4154(a) and (b) in a control period adjusted by deductions of such Hg allowances to account for actual heat input under §60.4142(e) for the control period or to account for excess emissions for a prior control period under §60.4154(d).

Hg Budget permit means the legally binding and federally enforceable written document, or portion of such document, issued by the permitting authority under this part, including any permit revisions, specifying the Hg Budget Trading Program requirements applicable to a Hg Budget source, to each Hg Budget unit at the Hg Budget source, and to the owners and operators and the Hg authorized account representative of the Hg Budget source and each Hg Budget unit.

Hg Budget source means a source that includes one or more Hg Budget units.

Hg Budget Trading Program means a multi-state mercury air pollution control and emission reduction program established by the Administrator in accordance with this part and pursuant to §51.XX of this chapter, as a means of reducing national mercury emissions.

Hg Budget unit means a unit that is subject to the Hg Budget Trading Program emissions limitation under §60.4104.

Life-of-the-unit, firm power contractual arrangement means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy from any specified unit and pays its proportional amount of such unit’s total costs, pursuant to a contract:

(1) For the life of the unit;

(2) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(3) For a period equal to or greater than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

Maximum design heat input means the ability of a unit to combust a stated maximum amount of fuel per hour (in mmBtu/hr) on a steady state basis, as specified by the manufacturer of the unit as of the unit's initial installation and based on the physical design and physical characteristics of the unit.

Maximum potential hourly heat input means an hourly heat input (in mmBtu/hr) used for reporting purposes when a unit lacks certified monitors to report heat input. If the unit intends to use appendix D of part 75 of this chapter to report heat input, this value should be calculated, in accordance with part 75 of this chapter, using the maximum fuel flow rate and the maximum gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this value should be reported, in accordance with part 75 of this chapter, using the maximum potential flowrate and either the maximum carbon dioxide concentration (in percent CO_2) or the minimum oxygen concentration (in percent O_2).

Maximum potential Hg emission rate means the emission rate of mercury (in lb/ 10^{12} Btu) calculated in accordance with section 2.1.7.1(b) of appendix A to part 75 of this chapter, using the maximum potential concentration of Hg under section 2.1.7.1 of appendix A to part 75 of this chapter, and either the maximum oxygen concentration (in percent O2) or the minimum carbon dioxide concentration (in percent CO_2), under all operating conditions of the unit except for unit start up, shutdown, and upsets.

Maximum rated hourly heat input means a unit specific maximum hourly heat input (in mmBtu/hr) which is the higher of the manufacturer's maximum rated hourly heat input or the highest observed hourly heat input.

Monitoring system means any monitoring system that meets the requirements of this subpart, including a continuous emissions monitoring system or an alternative monitoring system.

Nameplate capacity means the maximum electrical generating output (in MWe) that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as specified by the manufacturer as of the initial installation of the unit or, if the unit is subsequently modified, reconstructed, or repowered resulting in an increase in maximum heat input, as specified by the person conducting the modification, reconstruction, or repowering.

Operator means any person who operates, controls, or supervises a Hg Budget unit or a Hg Budget source is submitted and not denied or withdrawn and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

Ounce means XXX micrograms. For the purpose of determining compliance with the Hg Budget emissions limitation, total ounces for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emissions rates) in accordance with this part, with any remaining fraction of an ounce equal to or greater than 0.50 ounce deemed to equal one ounce and any fraction of an ounce less than 0.50 ounce deemed to equal zero ounces.

Owner means any of the following persons:

(1) Any holder of any portion of the legal or equitable title in a Hg Budget unit; or

(2) Any holder of a leasehold interest in a Hg Budget unit; or

(3) Any purchaser of power from a Hg Budget unit under a life-of-the-unit, firm power contractual arrangement. However, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the Hg Budget unit; or

(4) With respect to any general account, any person who has an ownership interest with respect to the Hg allowances held in the general account and who is

subject to the binding agreement for the Hg authorized account representative to represent that person's ownership interest with respect to Hg allowances.

Percent monitor data availability means, for purposes of §60.4143 (a)(1), total unit operating hours for which quality-assured data were recorded under §§60.4170 through 60.4176 in a control period, divided by the total number of unit operating hours in the control period, and multiplied by 100 percent.

Permitting authority means the State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to issue or revise permits to meet the requirements of the Hg Budget Trading Program in accordance with §§60.4120 through 60.4124.

Potential electrical output capacity means 33 percent of a unit's maximum design heat input.

Receive or receipt of means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in writing or by authorized electronic transmission), as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.

<u>Recordation, record, or recorded</u> means, with regard to Hg allowances, the movement of Hg allowances by the Administrator from one Hg Allowance Tracking System account to another, for purposes of allocation, transfer, or deduction.

<u>Reference method</u> means any direct test method of sampling and analyzing for an air pollutant as specified in §75.22 of this chapter.

<u>Serial number</u> means, when referring to Hg allowances, the unique identification number assigned to each Hg allowance by the Administrator, under §60.4153(f).

<u>Source</u> means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons.. For purposes of section 502(c) of the Clean Air Act, a “source,” including a “source” with multiple units, shall be considered a single “facility.”

<u>State</u> means one of the 50 States or the District of Columbia that is specified in this part.

<u>Submit or serve</u> means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

(1) In person;

(2) By United States Postal Service; or

(3) By other means of dispatch or transmission and delivery. Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

Title V operating permit means a permit issued under title V of the Clean Air Act and part 70 or part 71 of this chapter.

Title V operating permit regulations means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the Clean Air Act and part 70 or 71 of this chapter.

Unit operating day means a calendar day in which a unit combusts any fuel.

Unit operating hour or hour of unit operation means any hour (or fraction of an hour) during which a unit combusts any fuel.

§60.4103 Measurements, abbreviations, and acronyms.

Measurements, abbreviations, and acronyms used in this part are defined as follows:

Btu-British thermal unit.

CO_2-carbon dioxide.

Hg-mercury.

hr-hour.

kW-kilowatt electrical.

kWh-kilowatt hour.

mmBtu-million Btu.

MWe-megawatt electrical.

O_2-oxygen.

§60.4104 Applicability.

The following units in a State shall be Hg Budget units, and any source that includes one or more such units shall be a Hg Budget source, subject to the requirements of this part:

(a) A coal-fired combustion unit that serves a generator of more than 25 MW that produces electricity for sale.

(b) A coal-fired combustion unit that cogenerates steam and serves a generator that supplies more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale.

§60.4105 Retired unit exemption.

(a) This section applies to any Hg Budget unit that is permanently retired.

(b)(1) Any Hg Budget unit, that is permanently retired shall be exempt from the Hg Budget Trading Program, except for the provisions of this section, §60.4102, §60.4103, §60.4104, §60.4107, and §§60.4130 through 60.4162.

(2) The exemption under paragraph (b)(1) of this section shall become effective the day on which the unit is permanently retired. Within 30 days of permanent retirement, the Hg authorized account representative shall submit a statement to the permitting authority otherwise responsible for administering any Hg Budget permit for the unit. The Hg authorized account representative shall submit a copy of the statement to the Administrator. The statement shall state, in a format prescribed by the permitting authority, that the unit is permanently retired and will comply with the requirements of paragraph (c) of this section.

(3) After receipt of the notice under paragraph (b)(2) of this section, the permitting authority will amend any permit covering the source at which the unit is located to add the provisions and requirements of the exemption under paragraphs (b)(1) and (c) of this section.

(c) Special provisions.

(1) A unit exempt under this section shall not emit any mercury, starting on the date that the exemption takes effect.

(2) The Permitting Authority will allocate Hg allowances under §§60.4140 through 60.4142 to a unit exempt under this section.

(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under this section shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.

(4) The owners and operators and, to the extent applicable, the Hg authorized account representative of a unit exempt under this section shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(5) A unit exempt under this section and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg authorized account representative of the source submits a complete Hg Budget permit application under §60.4122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date

on which the unit resumes operation.

(6) On the earlier of the following dates, a unit exempt under paragraph (b) of this section shall lose its exemption:

(i) The date on which the Hg authorized account representative submits a Hg Budget permit application under paragraph (c)(5) of this section;

(ii) The date on which the Hg authorized account representative is required under paragraph (c)(5) of this section to submit a Hg Budget permit application; or

(iii) The date on which the unit resumes operation, if the Hg authorized account representative is not required to submit a Hg Budget permit application for the unit.

(7) For the purpose of applying monitoring requirements under §§60.4170 through 60.4176 of this part, a unit that loses its exemption under this section shall be treated as a unit that commences operation or commercial operation on the first date on which the unit resumes operation.

§60.4106 Standard requirements.

(a) Permit Requirements.

(1) The Hg authorized account representative of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete Hg Budget permit application under §60.4122 in accordance with the deadlines specified in §60.4121(b) and (c);

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a Hg Budget permit application and issue or deny a Hg Budget permit.

(2) The owners and operators of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source shall have a Hg Budget permit issued by the permitting authority and operate the unit in compliance with such Hg Budget permit.

(3) The owners and operators of a Hg Budget source that is not otherwise required to have a title V operating permit are not required to submit a Hg Budget permit application, and to have a Hg Budget permit, under §§60.4120 through 60.4124 for such Hg Budget source.

(b) Monitoring requirements.

(1) The owners and operators and, to the extent applicable, the Hg authorized account representative of each Hg Budget source and each Hg Budget unit at the source shall comply with the monitoring requirements of §§60.4170 through 60.4176.

(2) The emissions measurements recorded and reported in accordance with §§60.4170 through 60.4176 shall be used to determine compliance by the unit with the Hg Budget emissions limitation under paragraph (c) of this section.

(c) Mercury emission requirements.

(1) As of the Hg allowance transfer deadline for a control period, the owners and operators of each Hg Budget source and each Hg Budget unit at the source shall hold Hg allowances available for compliance deductions under §60.4154(a) and(b) as of the Hg allowance transfer deadline, in the source's compliance account in an amount not less than the total Hg emissions for the control period from all Hg Budget units at the source, as determined in accordance with this subpart, plus any amount necessary to account for actual heat input under §60.4142(e) for the control period or to account for excess emissions for a prior control period under §60.4154(d).

(2) Each ounce of mercury emitted in excess of the Hg Budget emissions limitation shall constitute a separate violation of this part, the Clean Air Act, and applicable State law.

(3) A Hg Budget unit shall be subject to the requirements under paragraph (c)(1) of this section starting on the later of January 1, 2010 or the date on which the

unit commences operation.

(4) Hg allowances shall be held in, deducted from, or transferred among Hg Allowance Tracking System accounts in accordance with §§60.4140 through 60.4162.

(5) A Hg allowance shall not be deducted, in order to comply with the requirements under paragraph (c)(1) of this section, for a control period in a year prior to the year for which the Hg allowance was allocated.

(6) A Hg allowance allocated by the Administrator under the Hg Budget Trading Program is a limited authorization to emit one ounce of mercury in accordance with the Hg Budget Trading Program. No provision of the Hg Budget Trading Program, the Hg Budget permit application, the Hg Budget permit and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) A Hg allowance allocated by the Administrator under the Hg Budget Trading Program does not constitute a property right.

(8) Upon recordation by the Administrator under §§60.4150 through 60.4162, every allocation, transfer, or deduction of a Hg allowance to or from a Hg Budget unit’s compliance account is incorporated automatically in any Hg Budget permit of the Hg Budget unit.

(d) Excess emissions requirements.

(1) The owners and operators of a Hg Budget unit that has excess emissions in any control period shall:

(i) Surrender the Hg allowances required for deduction under §60.4154(d)(1); and

(ii) Pay any fine, penalty, or assessment or comply with any other remedy imposed under §60.4154(d)(3).

(e) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the Hg Budget source and each Hg Budget unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The account certificate of representation under §60.4113 for the Hg authorized account representative for the source and each Hg Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new account certificate of representation under §60.4113 changing the Hg authorized account representative.

(ii) All emissions monitoring information, in accordance with §§60.4170 through 60.4176; provided that to the extent that §§60.4170 through 60.4176 of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Hg Budget Trading Program.

(iv) Copies of all documents used to complete a Hg Budget permit application and any other submission under the Hg Budget Trading Program or to demonstrate compliance with the requirements of the Hg Budget Trading Program.

(2) The Hg authorized account representative of a Hg Budget source and each Hg Budget unit at the source shall submit the reports and compliance certifications required under the Hg Budget Trading Program, including those under §§60.4130 through 60.4131 and §§60.4170 through 60.4176.

(f) Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Hg Budget Trading Program, a Hg Budget permit, or an exemption under §60.4105 shall be subject to enforcement pursuant to applicable State or Federal law.

(2) Any person who knowingly makes a false material

statement in any record, submission, or report under the Hg Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law.

(3) No permit revision shall excuse any violation of the requirements of the Hg Budget Trading Program that occurs prior to the date that the revision takes effect.

(4) Each Hg Budget source and each Hg Budget unit shall meet the requirements of the Hg Budget Trading Program.

(5) Any provision of the Hg Budget Trading Program that applies to a Hg Budget source or the Hg authorized account representative of a Hg Budget source shall also apply to the owners and operators of such source and of the Hg Budget units at the source.

(6) Any provision of the Hg Budget Trading Program that applies to a Hg Budget unit or the Hg authorized account representative of a Hg budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under §§60.4170 through 60.4176, the owners and operators and the Hg authorized account representative of one Hg Budget unit shall not be liable for any violation by any other Hg Budget unit of which they are not owners or operators or the Hg authorized account representative and that is located at a source of which they are not owners or

operators or the Hg authorized account representative.

(g) Effect on Other Authorities. No provision of the Hg Budget Trading Program, a Hg Budget permit application, a Hg Budget permit, or an exemption under §60.4105 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the Hg authorized account representative of a Hg Budget source or Hg Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

§60.4107 Computation of time.

(a) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period, under the Hg Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

Hg Authorized Account Representative for Hg Budget Sources

§60.4110 Authorization and responsibilities of Hg authorized account representative.

(a) Except as provided under §60.4111, each Hg Budget source, including all Hg Budget units at the source, shall have one and only one Hg authorized account representative, with regard to all matters under the Hg Budget Trading Program concerning the source or any Hg Budget unit at the source.

(b) The Hg authorized account representative of the Hg Budget source shall be selected by an agreement binding on the owners and operators of the source and all Hg Budget units at the source.

(c) Upon receipt by the Administrator of a complete account certificate of representation under §60.4113, the Hg authorized account representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the Hg Budget source represented and each Hg Budget unit at the source in all matters pertaining to the Hg Budget Trading Program, not withstanding any agreement between the Hg authorized account representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the Hg authorized account representative by the permitting authority, the

Administrator, or a court regarding the source or unit.

(d) No Hg Budget permit shall be issued, and no Hg Allowance Tracking System account shall be established for a Hg Budget unit at a source, until the Administrator has received a complete account certificate of representation under §60.4113 for a Hg authorized account representative of the source and the Hg Budget units at the source.

(e) (1) Each submission under the Hg Budget Trading Program shall be submitted, signed, and certified by the Hg authorized account representative for each Hg Budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the Hg authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the Hg Budget sources or Hg Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(2) The permitting authority and the Administrator will accept or act on a submission made on behalf of owner or operators of a Hg Budget source or a Hg Budget unit only if the submission has been made, signed, and certified in accordance with paragraph (e)(1) of this section.

§60.4111 Alternate Hg authorized account representative.

(a) An account certificate of representation may designate one and only one alternate Hg authorized account representative who may act on behalf of the Hg authorized account representative. The agreement by which the alternate Hg authorized account representative is selected shall include a procedure for authorizing the alternate Hg authorized account representative to act in lieu of the Hg authorized account representative.

(b) Upon receipt by the Administrator of a complete account certificate of representation under §60.4113, any representation, action, inaction, or submission by the alternate Hg authorized account representative shall be deemed to be a representation, action, inaction, or submission by the Hg authorized account representative.

(c) Except in this section and §§60.4110(a), 60.4112, 60.4113, and 60.4151, whenever the term "Hg authorized account representative” is used in this subpart, the term shall be construed to include the alternate Hg authorized account representative.

§60.4112 Changing Hg authorized account representative and alternate Hg authorized account representative; changes in owners and operators.

(a) Changing Hg authorized account representative. The Hg authorized account representative may be changed at any time upon receipt by the Administrator of a superseding complete account certificate of representation under §60.4113. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg authorized account representative prior to the time and date when the Administrator receives the superseding account certificate of representation shall be binding on the new Hg authorized account representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.

(b) Changing alternate Hg authorized account representative. The alternate Hg authorized account representative may be changed at any time upon receipt by the Administrator of a superseding complete account certificate of representation under §60.4113. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg authorized account representative prior to the time and date when the Administrator receives the superseding account certificate of representation shall be binding on the new alternate Hg authorized account representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.

(c) Changes in owners and operators.

(1) In the event a new owner or operator of a Hg Budget source or a Hg Budget unit is not included in the list of owners and operators submitted in the account certificate of representation under §60.4113, such new owner or operator shall be deemed to be subject to and bound by the account certificate of representation, the representations, actions, inactions, and submissions of the Hg authorized account representative and any alternate Hg authorized account representative of the source or unit, and the decisions, orders, actions, and inactions of the permitting authority or the Administrator, as if the new owner or operator were included in such list.

(2) Within 30 days following any change in the owners and operators of a Hg Budget source or a Hg Budget unit, including the addition of a new owner or operator, the Hg authorized account representative or alternate Hg authorized

account representative shall submit a revision to the account certificate of representation under §60.4113 amending the list of owners and operators to include the change.

§60.4113 Account certificate of representation.

(a) A complete account certificate of representation for a Hg authorized account representative or an alternate Hg authorized account representative shall include the following elements in a format prescribed by the Administrator:

(1) Identification of the Hg Budget source and each Hg Budget unit at the source for which the account certificate of representation is submitted.

(2) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg authorized account representative and any alternate Hg authorized account representative.

(3) A list of the owners and operators of the Hg Budget source and of each Hg Budget unit at the source.

(4) The following certification statement by the Hg authorized account representative and any alternate Hg authorized account representative: “I certify that I was selected as the Hg authorized account representative or alternate Hg authorized account representative, as

applicable, by an agreement binding on the owners and operators of the Hg Budget source and each Hg Budget unit at the source. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of the owners and operators of the Hg Budget source and of each Hg Budget unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions and by any decision or order issued to me by the permitting authority, the Administrator, or a court regarding the source or unit."

(5) The signature of the Hg authorized account representative and any alternate Hg authorized account representative and the dates signed.

(b) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the account certificate of representation shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

§60.4114 Objections concerning Hg authorized account representative.

(a) Once a complete account certificate of representation under §60.4113 has been submitted and received, the permitting authority and the Administrator will rely on the account certificate of representation unless and until a superseding complete account certificate of representation under §60.4113 is received by the Administrator.

(b) Except as provided in §60.4112(a) or (b), no objection or other communication submitted to the permitting authority or the Administrator concerning the authorization, or any representation, action, inaction, or submission of the Hg authorized account representative shall affect any representation, action, inaction, or submission of the Hg authorized account representative or the finality of any decision or order by the permitting authority or the Administrator under the Hg Budget Trading Program.

(c) Neither the permitting authority nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any Hg authorized account representative, including private legal disputes concerning the proceeds of Hg allowance transfers.

Permits

§60.4120 General Hg Budget Trading Program permit requirements.

(a) For each Hg Budget source required to have a title V operating permit, such permit shall include a Hg Budget permit administered by the permitting authority for the title V operating permit. The Hg Budget portion of the title V permit shall be administered in accordance with the permitting authority's title V operating permits regulations promulgated under part 70 or 71 of this chapter, except as provided otherwise by this subpart or subpart I of this part.

(b) Each Hg Budget permit shall contain all applicable Hg Budget Trading Program requirements and shall be a complete and segregable portion of the title V operating permit under paragraph (a) of this section.

§60.4121 Submission of Hg Budget permit applications.

(a) Duty to apply. The Hg authorized account representative of any Hg Budget source required to have a title V operating permit shall submit to the permitting authority a complete Hg Budget permit application under §60.4122 by the applicable deadline in paragraph (b) of this section.

(b) Application deadline.

(1) For any source, with one or more Hg Budget units under §60.4104(a) that commence operation before [DATE OF PUBLICATION OF FINAL RULE IN THE FINAL REGISTER], the Hg

authorized account representative shall submit a complete Hg Budget permit application under §60.4122 covering such Hg Budget units to the permitting authority at least 18 months (or such lesser time provided by the permitting authority) before January 1, 2010.

(2) For any source, with any Hg Budget unit under §60.4104(a) that commences operation on or after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], the Hg authorized account representative shall submit a complete Hg Budget permit application under §60.4122 covering such Hg Budget unit to the permitting authority at least 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the Hg Budget unit commences operation.

(c) Duty to Reapply. For a Hg Budget source required to have a title V operating permit, the Hg authorized account representative shall submit a complete Hg Budget permit application under §60.4122 for the Hg Budget source covering the Hg Budget units at the source in accordance with the permitting authority’s title V operating permits regulations addressing operating permit renewal.

§60.4122 Information requirements for Hg Budget permit applications.

A complete Hg Budget permit application shall include the following elements concerning the Hg Budget source for which the application is submitted, in a format prescribed by the permitting authority:

(a) Identification of the Hg Budget source, including plant name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration, if applicable;

(b) Identification of each Hg Budget unit at the Hg Budget source and whether it is a Hg Budget unit under §60.4104(a); and

(c) The standard requirements under §60.4106.

§60.4123 Hg Budget permit contents.

(a) Each Hg Budget permit will contain, in a format prescribed by the permitting authority, all elements required for a complete Hg Budget permit application under §60.4122.

(b) Each Hg Budget permit is deemed to incorporate automatically the definitions of terms under §60.4102 and, upon recordation by the Administrator under §§60.4150 through 60.4162, every allocation, transfer, or deduction of a Hg allowance to or from the compliance accounts of the Hg Budget units covered by the permit.

§60.4124 Hg Budget permit revisions.

Except as provided in §60.4123(b), the permitting authority will revise the Hg Budget permit, as necessary, in accordance with the permitting authority's title V operating permits regulations addressing permit revisions.

Compliance Certification

§60.4130 Compliance certification report.

(a) Applicability and deadline. For each control period in which one or more Hg Budget units at a source are subject to the Hg Budget emissions limitation, the Hg authorized account representative of the source shall submit to the permitting authority and the Administrator by March 1 of the immediately following control period, a compliance certification report for each source covering all such units.

(b) Contents of report. The Hg authorized account representative shall include in the compliance certification report under paragraph (a) of this section the following elements, in a format prescribed by the Administrator, concerning each unit at the source and subject to the Hg Budget emissions limitation for the control period covered by the report:

(1) Identification of each Hg Budget unit;

(2) At the Hg authorized account representative's option, the serial numbers of the Hg allowances that are to be deducted from each source's compliance account under

§60.4154 for the control period; and

(3) The compliance certification under paragraph (c) of this section.

(c) Compliance certification. In the compliance certification report under paragraph (a) of this section, the Hg authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the Hg Budget units at the source in compliance with the Hg Budget Trading Program, whether each Hg Budget unit for which the compliance certification is submitted was operated during the control period covered by the report in compliance with the requirements of the Hg Budget Trading Program applicable to the unit, including:

(1) Whether the unit was operated in compliance with the Hg Budget emissions limitation;

(2) Whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit and contains all information necessary to attribute Hg emissions to the unit, in accordance with §§60.4170 through 60.4176;

(3) Whether all the Hg emissions from the unit, or a group of units (including the unit) using a common stack, were monitored or accounted for through the missing data

procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with §§60.4170 through 60.4176. If conditional data were reported, the owner or operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(4) Whether the facts that form the basis for certification under this subpart of each monitor at the unit or a group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under this subpart, if any, have changed; and

(5) If a change is required to be reported under paragraph (c)(4) of this section, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification.

§60.4131 Administrator's action on compliance certifications.

(a) The Administrator may review and conduct independent audits concerning any compliance certification or any other submission under the Hg Budget Trading Program and make appropriate adjustments of the information in the compliance certifications or other submissions.

(b) The Administrator may deduct Hg allowances from or transfer Hg allowances to a source's compliance account based on the information in the compliance certifications or other submissions, as adjusted under paragraph (a) of this section.

Hg Allowance Allocations

§60.4140 State trading program budget.

(a) For each state listed in paragraph (b) of this section, the state plan required under subpart B, 40 CFR part 60, and this section shall limit total annual Hg emissions from Hg Budget units to the amounts specified in paragraph (b) of this section.

(b) The state-by-state trading program budgets for annual allocations for 2010 through 2017 and for 2018 and thereafter are respectively as follows:

State	**Budget (tons)**	
	2010-2017	**2018 and thereafter**
Alabama		0.506
Alaska		0.002
Arizona		0.289
Arkansas		0.202
California		0.016
Colorado		0.277
Connecticut		0.023
Delaware		0.029

District of Columbia		0.000
Florida		0.491
Georgia		0.483
Hawaii		0.009
Idaho		0.000
Illinois		0.635
Indiana		0.833
Iowa		0.284
Kansas		0.281
Kentucky		0.605
Louisiana		0.236
Maine		0.001
Maryland		0.186
Massachusetts		0.070
Michigan		0.517
Minnesota		0.274
Mississippi		0.114
Missouri		0.545
Montana		0.148
Nebraska		0.165
Nevada		0.112
New Hampshire		0.025
New Jersey		0.060
New Mexico		0.240
New York		0.157
North Carolina		0.451
North Dakota		0.614
Ohio		0.810
Oklahoma		0.285
Oregon		0.030
Pennsylvania		0.710
Rhode Island		0.000
South Carolina		0.226
South Dakota		0.028
Tennessee		0.378
Texas		1.837
Utah		0.224
Vermont		0.000
Virginia		0.234
Washington		0.077
West Virginia		0.554
Wisconsin		0.353
Wyoming		0.375

§60.4141 Timing requirements for Hg allowance allocations.

(a) By October 31, 2006, the permitting authority will submit to the Administrator the Hg allowance allocations, in format prescribed by the Administrator and in accordance with §60.4142, for the control periods in 2010, 2011, 2012, 2013, and 2014. If the permitting authority fails to submit to the Administrator the Hg allowance allocations in accordance with this paragraph (a), the Administrator will allocate Hg allowances for the applicable control periods, in accordance with §60.4142, within 60 days of the deadline for submission by the permitting authority.

(b) By October 31, 2009 and October 31 of each year thereafter, the permitting authority will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with §60.4142, for the control period in the year that is 6 years after the year of the applicable deadline for submission under this paragraph (b). If the permitting authority fails to submit to the Administrator the Hg allowance allocations in accordance with this paragraph (b), the Administrator will allocate Hg allowances for the applicable control period, in accordance with §60.4142, within 60 days of the applicable deadline for submission by the permitting authority.

§60.4142 Hg allowance allocations.

(a)(1) The baseline heat input (in mmBtu) used for calculating Hg allowance allocations for each Hg Budget unit under §60.4104 will be:

(i) For units that commenced operation before January 1, 2000 the average of the three highest amounts of the unit's annual heat input for 1998 through 2002 and multiplied by:

(A) 3.0, for the portion of such average heat input that equals the unit's average annual combustion of lignite during 1999,

(B) 1.25, for the portion of such average heat input that equals the unit's average annual combustion of subbituminous coal during 1999,

(C) 1.0, for the portion of such average heat input that is not covered by paragraph (a)(1)(i)(A) or (B) of this section.

(ii) For units that commence operation on or after January 1, 2000 and operate during five years or more, the average of the three highest amounts of the unit's total converted annual heat input over the first five years during which the unit operates.

(2)(i) A unit's annual heat input for a year specified under paragraph (a)(1)(i) of this section will be determined in accordance with part 75 of this chapter, if the Hg Budget unit was otherwise subject to the requirements of part 75 of this chapter for the year, or will be based on the best available data reported to the permitting authority for the unit, if the unit was not otherwise subject to the requirements of part 75 of this chapter for the year.

(ii) A unit's converted annual heat input for a year specified under paragraph (a)(1)(ii) of this section equals the gross electrical output of the generator or generators served by the unit multiplied by 8,000 Btu/kWh, plus, for a cogeneration unit, one half of the unit's gross process steam output multiplied by 8,000 Btu/kWh. If the generator is served by two or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's heat input.

(b) For each control period under §60.4141, the permitting authority will allocate to all Hg Budget units under §60.4104 in the State that have operated for at least five years a total amount of Hg allowances equal to 98 percent of the ounces of Hg emissions in the State trading program budget under §60.4140 (except as provided in §60.4143) in accordance with the following procedures:

(1) The permitting authority will allocate Hg allowances to each Hg Budget unit in an amount determined by multiplying the allocation amount in State trading budget by the ratio of the baseline heat input of such unit to the total amount of baseline heat input of all affected units in

the State (as calculated in §60.4142 (a)(1))

(2) If the initial total number of Hg allowances allocated to all Hg Budget units in the State for a control period under paragraph (b)(1) of this section does not equal 98 percent of the amount of ounces of Hg emissions in the State trading program budget, the permitting authority will adjust the total amount of Hg allowances allocated to all such Hg Budget units for the control period under paragraph (b)(1) of this section so that the total amount of Hg allowances allocated equals 98 percent of the amount of ounces of Hg emissions in the State trading program budget. This adjustment will be made by: multiplying each unit's allocation by the total amount of Hg allowances allocated under paragraph (b)(1) of this section divided by 98 percent of the amount of ounces of Hg emissions in the State trading program budget, and rounding to the nearest whole allowance as appropriate.

(c) For each control period under §60.4141, the permitting authority will allocate Hg allowances to Hg Budget units under §60.4104 in the State that commenced operation on or after January 1, 2000 and have operated or operate during less than five years, in accordance with the following procedures:

(1) The permitting authority will establish a separate

allocation set-aside for each control period. Each allocation set-aside will be allocated Hg allowances equal to 2 percent of the amount of ounces of Hg emissions in the State trading program budget under §60.4140.

(2) The Hg authorized account representative of a Hg Budget unit under paragraph (c) of this section may submit to the permitting authority a request, in writing or in a format specified by the permitting authority, to be allocated Hg allowances for no more than five consecutive control periods under §60.4141, starting with the control period during which the Hg Budget unit is projected to commence operation. The Hg allowance allocation request must be submitted prior to January 1 of the first control period for which the Hg allowance allocation is requested and after the date on which the permitting authority issues a permit to construct the Hg Budget unit.

(3) In a Hg allowance allocation request under paragraph (c)(2) of this section, the Hg authorized account representative may request for a control period Hg allowances in an amount that does not exceed the unit's mercury emissions rate limitation under §60.45a of this chapter (in lb/GWh) multiplied by the Hg Budget unit's maximum design output (in GW) multiplied by the number of hours remaining in the control period starting with the

first day in the control period on which the unit is projected to operate multiplied by 0.90.

(4) The permitting authority will review, and allocate Hg allowances pursuant to, Hg allowance allocation requests under paragraph (c)(2) of this section in the order that the requests are received by the permitting authority.

(i) Upon receipt of a Hg allowance allocation request, the permitting authority will determine whether, and will make any necessary adjustments to the request to ensure that, the control period and the amount of allowances specified are consistent with the requirements of paragraphs (c)(2) and (3) of this section.

(ii) If the allocation set-aside for the control period for which Hg allowances are requested has an amount of Hg allowances not less than the amount requested (as adjusted under paragraph (c)(4)(i) of this section), the permitting authority will allocate the full, adjusted amount of the Hg allowances requested to the Hg Budget unit.

(iii) If the allocation set-aside for the control period for which Hg allowances are requested has a smaller amount of Hg allowances than the amount requested (as adjusted under paragraph (b)(4)(i) of this section), the permitting authority will deny in part the request and allocate only the remaining amount of Hg allowances in the allocation set-aside to the Hg Budget unit.

(iv) Once an allocation set-aside for a control period has been depleted of all Hg allowances, the permitting authority will deny, and will not allocate any Hg allowances pursuant to, any Hg allowance allocation requests under which Hg allowances have not already been allocated for the control period.

(5) Within 60 days of receipt of a Hg allowance allocation request, the permitting authority will take appropriate action under paragraph (c)(4) of this section and notify the Hg authorized account representative that submitted the request and the Administrator of the amount of Hg allowances (if any) allocated for the control period to the Hg Budget unit.

(d) For a Hg Budget unit that is allocated Hg allowances under paragraph (c) of this section for a control period, the Administrator will deduct Hg allowances under §60.4154(b) to account for the actual utilization of the unit during the control period,

using the following formula, provided that the amount of Hg allowances to be deducted shall be zero if the amount calculated is less than zero:

Unit’s Hg allowances deducted for actual utilization = (Unit’s Hg allowances allocated for control period) - (

Unit’s actual control period utilization x Unit’s mercury emission rate limitation under §60.45a of this chapter) where:

“Unit’s Hg allowances allocated for control period” is the amount of Hg allowances allocated to the unit for the control period under paragraph (c) of this section.

“Unit’s actual control period utilization” is the utilization (in kwh), as defined in §60.4102, of the unit during the control period.

(e) The permitting authority will reallocate any Hg allowances deducted by the Administrator in accordance with paragraph (d) of this section, pursuant to any Hg allowance allocation requests that were originally denied in whole or in part under paragraph (c)(4)(iii) or (iv) of this section as follows:

(1) Such Hg allowance allocation requests will be considered in the order that they were received by the permitting authority.

(2) The amount of Hg allowances reallocated pursuant to each such Hg allowance allocation request will equal the unit’s actual control period utilization multiplied by the unit’s mercury emission rate limitation under §60.45a of this chapter, except as provided under paragraph (e)(3) of this section.

(3) As each such Hg allowance request is considered for reallocation, if fewer Hg allowances remain available for reallocation pursuant to an Hg allowance allocation request than the amount of Hg allowances under paragraph (e)(2) of this section, then all of the Hg allowances remaining available for reallocation will be reallocated pursuant to such Hg allowance allocation request.

(4) The permitting authority will notify the Hg authorized account representative that submitted the request and the Administrator of the amount of Hg allowances (if any) allocated under this paragraph.

(f) If, after completion of the procedures under paragraphs (c) and (e) of this section, there are remaining unallocated Hg allowances from the allocation set-aside for a control period remain, the permitting authority shall reallocate to each Hg Budget unit that was allocated Hg allowances under paragraph (b) an amount of Hg allowances equal to the total amount of such remaining unallocated Hg allowances multiplied by the unit's allocation under paragraph (b) of this section divided by 98 percent of the amount of ounces of Hg emissions in the State trading program budget and rounding to the nearest whole allowance as appropriate.

§60.4143 Hg safety valve provisions.

(a) Any person may purchase Hg allowances from the permitting authority during any control period. Each mercury allowance shall be sold for $2,187.50, with such price adjusted for inflation based on the Consumer Price Index on the January 1, 2004 and annually thereafter.

(b) The proceeds from any sales of Hg allowances under paragraph (a) of this section shall be deposited in the State Treasury.

(c) Each Hg allowance purchased under paragraph (a) of this section shall be taken from, and reduce, the total amount of Hg allowances available for allocation under §60.4142 (b) for the first control period after the control period during which such Hg allowance is purchased and for which Hg allowances have not already been allocated under §60.4142 (b).

(d) Notwithstanding paragraph (c) of this section, each Hg allowance purchased under paragraph (a) of this section shall be treated as being allocated for the control period during which such Hg allowance was purchased or for the immediately preceding control period.

Hg Allowance Tracking System

§60.4150 Hg Allowance Tracking System accounts.

(a) <u>Nature and function of compliance accounts.</u> Consistent with §60.4151(a), the Administrator will establish one compliance account for each Hg Budget source with one or more Hg Budget units. Allocations of Hg allowances pursuant to this subpart, and deductions or transfers of Hg allowances pursuant to §60.4131, §60.4154, §60.4156, or §§60.4160 through 60.4162 will be recorded in compliance accounts in accordance with §§60.4151 through 60.4157.

(b) Nature and function of general accounts. Consistent with §60.4151(b), the Administrator will establish, upon request, a general account for any person. Transfers of allowances pursuant to §§60.4160 through 60.4162 will be recorded in general accounts in accordance with this subpart.

§60.4151 Establishment of accounts.

(a) Compliance accounts. Upon receipt of a complete account certificate of representation under §60.4113, the Administrator will establish a compliance account for each Hg Budget source for which the account certificate of representation was submitted.

(b) General accounts.

(1) Application for general account.

(i) Any person may apply to open a general account for the purpose of holding and transferring allowances. An application for a general account may designate one and only one Hg authorized account representative and one and only one alternate Hg authorized account representative who may act on behalf of the Hg authorized account representative. The agreement by which the alternate Hg authorized account representative is selected shall include a procedure for authorizing the alternate Hg authorized account representative to act in lieu of the Hg authorized account representative. A complete application for a general account shall be submitted to the Administrator and shall include the following elements in a format prescribed by the Administrator:

(A) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg authorized account representative and any alternate Hg authorized account representative;

(B) At the option of the Hg authorized account representative, organization name and type of organization;

(C) A list of all persons subject to a binding agreement for the Hg authorized account representative and any alternate Hg authorized account representative to represent their ownership interest with respect to the allowances held in the general account;

(D) The following certification statement by the Hg authorized account representative and any alternate Hg authorized account representative: “I certify that I was selected as the Hg authorized account representative or the Hg alternate authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of such persons and that each such person shall be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account.”

(E) The signature of the Hg authorized account representative and any alternate Hg authorized account representative and the dates signed.

(ii) Unless otherwise required by the permitting authority or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the permitting authority or the Administrator. Neither the permitting authority nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

(2) Authorization of Hg authorized account representative. Upon receipt by the Administrator of a

complete application for a general account under paragraph (b)(1) of this section:

(i) The Administrator will establish a general account for the person or persons for whom the application is submitted.

(ii) The Hg authorized account representative and any alternate Hg authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to Hg allowances held in the general account in all matters pertaining to the Hg Budget Trading Program, not withstanding any agreement between the Hg authorized account representative or any alternate Hg authorized account representative and such person. Any such person shall be bound by any order or decision issued to the Hg authorized account representative or any alternate Hg authorized account representative by the Administrator or a court regarding the general account.

(iii) Any representation, action, inaction, or submission by any alternate Hg authorized account representative shall be deemed to be a representation, action, inaction, or submission by the Hg authorized account representative.

(iv) Each submission concerning the general account shall be submitted, signed, and certified by the Hg authorized account representative or any alternate Hg authorized account representative for the persons having an ownership interest with respect to Hg allowances held in the general account. Each such submission shall include the following certification statement by the Hg authorized account representative or any alternate Hg authorizing account representative: “I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the Hg allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.”

(v) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (b)(2)(iv) of this section.

(3) Changing Hg authorized account representative and alternate Hg authorized account representative; changes in persons with ownership interest.

(i) The Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg authorized account representative prior to the time and date when the Administrator receives the superseding application for a general account shall be binding on the new Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.

(ii) The alternate Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under paragraph (b)(1) of this section. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg authorized account representative prior to the time and date when the Administrator receives the superseding application for a general account shall be binding on the new alternate Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.

(iii)(A) In the event a new person having an ownership interest with respect to Hg allowances in the general account is not included in the list of such persons in the account certificate of representation, such new person shall be deemed to be subject to and bound by the account certificate of representation, the representation, actions, inactions, and submissions of the Hg authorized account representative and any alternate Hg authorized account representative of the source or unit, and the decisions, orders, actions, and inactions of the Administrator, as if the new person were included in such list.

(B) Within 30 days following any change in the persons having an ownership interest with respect to Hg allowances in the general account, including the addition of persons, the Hg authorized account representative or any alternate Hg authorized account representative shall submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the Hg allowances in the general account to include the change.

(4) Objections concerning Hg authorized account representative.

(i) Once a complete application for a general account under paragraph (b)(1) of this section has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under paragraph (b)(1) of this section is received by the Administrator.

(ii) Except as provided in paragraph (b)(3)(i) or (ii) of this section, no objection or other communication submitted to the Administrator concerning the authorization, or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account shall affect any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative or the finality of any decision or order by the Administrator under the Hg Budget Trading Program.

(iii) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account, including private legal disputes concerning the proceeds of Hg allowance transfers.

(c) Account identification. The Administrator will assign a unique identifying number to each account established under paragraph (a) or (b) of this section.

§60.4152 Hg Allowance Tracking System responsibilities of Hg authorized account representative.

(a) Following the establishment of a Hg Allowance Tracking System account, all submissions to the Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of Hg allowances in the account, shall be made only by the Hg authorized account representative for the account.

(b) Authorized account representative identification. The Administrator will assign a unique identifying number to each Hg authorized account representative.

§60.4153 Recordation of Hg allowance allocations.

(a) The Administrator will record the Hg allowances for 2010 for a Hg Budget unit allocated under §§60.4140 through 60.4142 in the source’s compliance account.

(b) By January 1, 2008, the Administrator will record the Hg allowances for 2011 for a Hg Budget unit allocated under §§60.4140 through 60.4142 in the unit’s compliance account .

(c) By January 1, 2009, the Administrator will record the Hg allowances for 2012 for a Hg Budget unit allocated under §§60.4140 through 60.4142 in the unit’s compliance account.

(d) By January 1, 2010, the Administrator will record the Hg allowances for 2013 for a Hg Budget unit allocated under §§60.4140 through 60.4142 in the unit’s compliance account.

(e) Each year starting with 2011, after the Administrator has made all deductions from a Hg Budget unit’s compliance account pursuant to §60.4154 (except deductions pursuant to §60.4154(d)(2)), the Administrator will record:

(1) Hg allowances, in the compliance account, as allocated to the unit under §§60.4140 through 60.4142 for the third year after the year of the control period for which such deductions were or could have been made; and

(2) Hg allowances, in the general account specified by the owners and operators of the unit, as allocated under §60.4105(c)(2) for the third year after the year of the control period for which such deductions are or could have been made.

(f) Serial numbers for allocated Hg allowances. When allocating Hg allowances to a Hg Budget unit and recording them in an account, the Administrator will assign each Hg allowance a unique identification number that will include digits identifying the year for which the Hg allowance is allocated.

§60.4154 Compliance.

(a) Hg allowance transfer deadline. The Hg allowances are available to be deducted for compliance with a source's Hg Budget emissions limitation for a control period in a given year only if the Hg allowances:

(1) Were allocated for a control period in a prior year or the same year; and

(2) Are held in the source's compliance account as of the Hg allowance transfer deadline for that control period or are transferred into the compliance account by a Hg allowance transfer correctly submitted for recordation under §60.4160 by the Hg allowance transfer deadline for that control period.

(b) Deductions for compliance.

(1) Following the recordation, in accordance with §60.4161, of Hg allowance transfers submitted for recordation in a source's compliance account by the Hg allowance transfer deadline for a control period, the Administrator will deduct from the compliance account Hg allowances available under paragraph (a) of this section

first to account for actual heat input under §60.4142, and then to cover the total Hg emissions of all Hg Budget units at the source (as determined in §§60.4170 through 60.4176), for the control period.

(2) The Administrator will deduct Hg allowances from the source’s compliance account under paragraph (b)(1) of this section:

(i) Until the number of Hg allowances deducted for the control period equals the number of ounces of total Hg emissions, determined in accordance with §§60.4170 through 60.4176, from all Hg Budget units at the source for the control period for which compliance is being determined, plus the number of Hg allowances required for deduction to account for actual heat input under §60.4142(e) for the control period; or

(ii) Until no more Hg allowances available under paragraph (a) of this section remain in the compliance account.

(c)(1) Identification of Hg allowances by serial number. The Hg authorized account representative for each compliance account may identify by serial number the Hg allowances to be deducted from the source’s compliance account under paragraph (b) or (d) of this section. Such identification shall be made in the compliance certification report submitted in accordance with §60.4130.

(2) First-in, first-out. The Administrator will deduct Hg allowances for a control period from the source's compliance account, in the absence of an identification or in the case of a partial identification of Hg allowances by serial number under paragraph (c)(1) of this section on a first-in, first-out (FIFO) accounting basis in the following order:

(i) Those Hg allowances that were allocated in the order of recordation to the units at the source under §§60.4140 through 60.4142;

(ii) Those Hg allowances that were allocated for the control period to any unit and transferred and recorded in the compliance account pursuant to §§60.4160 through 60.4162 in order of their date of recordation;

(d) Deductions for excess emissions.

(1) After making the deductions for compliance under paragraph (b) of this section, the Administrator will deduct from the source's compliance account a number of Hg allowances, allocated for a control period after the control period in which the source has excess emissions, equal to three times the number of the source's excess emissions.

(2) If the compliance account does not contain sufficient Hg allowances, the Administrator will deduct the

required number of Hg allowances, regardless of the control period for which they were allocated, whenever Hg allowances are recorded in the compliance account.

(3) Any allowance deduction required under paragraph (d) of this section shall not affect the liability of the owners and operators of the Hg Budget unit for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under the Clean Air Act or applicable State law. The following guidelines will be followed in assessing fines, penalties or other obligations:

(i) For purposes of determining the number of days of violation, if a Hg Budget source has excess emissions for a control period, each day in the control period (153 days) constitutes a day in violation unless the owners and operators of the source demonstrate that a lesser number of days should be considered.

(ii) Each ounce of excess emissions is a separate violation.

(e) Recordation of deductions. The Administrator will record in the appropriate compliance account all deductions from such an account pursuant to paragraphs (b) or (d), of this section.

§60.4155 Banking.

Hg allowances may be banked for future use or transfer in a compliance account or a general account, as follows: any Hg allowance that is held in a compliance account or a general account will remain in such account unless and until the Hg allowance is deducted or transferred under §60.4131, §60.4154, §60.4156, or §§60.4160 through 60.4162.

§60.4156 Account error.

The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any Hg Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the Hg authorized account representative for the account.

§60.4157 Closing of general accounts.

(a) The Hg authorized account representative of a general account may instruct the Administrator to close the account by submitting a statement requesting deletion of the account from the Hg Allowance Tracking System and by correctly submitting for recordation under §60.4160 an allowance transfer of all Hg allowances in the account to one or more other Hg Allowance Tracking System accounts.

(b) If a general account shows no activity for a period of a year or more and does not contain any Hg allowances, the Administrator may notify the Hg authorized account representative for the account that the account will be closed and deleted from the Hg Allowance Tracking System following 20 business days after the notice is sent. The account will be closed after the 20-day period unless before the end of the 20-day period the Administrator receives a correctly submitted transfer of Hg allowances into the account under §60.4160 or a statement submitted by the Hg authorized account representative demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.

Hg Allowance Transfers

§60.4160 Submission of Hg allowance transfers.

A Hg authorized account representative seeking recordation of a Hg allowance transfer shall submit the transfer to the Administrator. To be considered correctly submitted, the Hg allowance transfer shall include the following elements in a format specified by the Administrator:

(a) The numbers identifying both the transferor and transferee accounts;

(b) A specification by serial number of each Hg allowance to be transferred; and

(c) The printed name and signature of the Hg authorized account representative of the transferor account and the date signed.

§60.4161 EPA recordation.

(a) Within 5 business days of receiving a Hg allowance transfer, except as provided in paragraph (b) of this section, the Administrator will record a Hg allowance transfer by moving each Hg allowance from the transferor account to the transferee account as specified by the request, provided that:

(1) The transfer is correctly submitted under §60.4160; and

(2) The transferor account includes each Hg allowance identified by serial number in the transfer.

(b) A Hg allowance transfer that is submitted for recordation following the Hg allowance transfer deadline and that includes any Hg allowances allocated for a control period in a prior year or the same year as the Hg allowance transfer deadline will not be recorded until after the Administrator completes the recordation of Hg allowance allocations under §60.4153 for the control period in the fourth year after the control period to which the Hg allowance transfer deadline applies.

(c) Where a Hg allowance transfer submitted for recordation fails to meet the requirements of paragraph (a) of this section, the Administrator will not record such transfer.

§60.4162 Notification.

(a) Notification of recordation. Within 5 business days of recordation of a Hg allowance transfer under §60.4161, the Administrator will notify the Hg authorized account representatives of both the transferor and transferee accounts.

(b) Notification of non-recordation. Within 10 business days of receipt of a Hg allowance transfer that fails to meet the requirements of §60.4161(a), the Administrator will notify the Hg authorized account representatives of both accounts subject to the transfer of:

(1) A decision not to record the transfer, and

(2) The reasons for such non-recordation.

(c) Nothing in this section shall preclude the submission of a Hg allowance transfer for recordation following notification of non-recordation.

Monitoring and Reporting

§60.4170 General Requirements.

The owners and operators, and to the extent applicable, the Hg authorized account representative of a Hg Budget unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this section and §§60.4171 through 60.4176 and in subpart I of part 75 of this chapter. For purposes of complying with such requirements, the definitions in §60.4102 and in §72.2 of this chapter shall apply, and the terms “affected unit,” “designated representative,” and “continuous emission monitoring system” (or “CEMS”) in part 75 of this chapter shall be deemed to refer to the terms “Hg Budget unit,” “Hg authorized account representative,” and “continuous emission monitoring system” (or “CEMS”) respectively, as defined in §60.4102. The owner or operator of a unit that is not a Hg Budget unit but that is monitored under §75.82(b)(2)(i) of this chapter shall comply with the monitoring, recordkeeping, and reporting requirements for a Hg Budget unit under this part.

(a) Requirements for installation, certification, and data accounting. The owner or operator of each Hg Budget unit shall meet the following requirements:

(1) Install all monitoring systems required under this subpart for monitoring Hg mass emissions. This includes all systems required to monitor Hg emission rate, Hg concentration, heat input rate, moisture, and stack flow rate, in accordance with §§75.81 and 75.82 of this chapter.

(2) Successfully complete all certification tests required under §60.4171 and meet all other requirements of this subpart and part 75 of this chapter applicable to the monitoring systems under paragraph (a)(1) of this section.

(3) Record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

(b) Compliance deadlines. The owner or operator shall meet the certification and other requirements of paragraphs (a)(1) and (a)(2) of this section on or before the following dates. The owner or operator shall record, report and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section on and after the following dates.

(1) For the owner or operator of a Hg Budget unit that commences operation before July 1, 2008, by January 1, 2009.

(2) For the owner or operator of a Hg Budget unit that commences operation on or after July 1, 2008, by the later of the following dates:

(i) January 1, 2009; or

(ii) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.

(3) For the owner or operator of a Hg Budget unit that has a new stack or flue for which construction is completed after the applicable deadline under paragraph (b)(1) or (b)(2) of this section, by the earlier of 90 unit operating days or 180 calendar days after the date on which emissions

first exit to the atmosphere through the new stack or flue.

(c) Reporting data prior to initial certification. The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in paragraph (b) of this section shall determine, record and report Hg mass emissions, heat input rate, and any other values required to determine Hg mass emissions (e.g., Hg emission rate and heat input rate, or Hg concentration and stack flow rate) in accordance with §75.80(g) of this chapter.

(d) Prohibitions.

(1) No owner or operator of a Hg Budget unit shall 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 §60.4175.

(2) No owner or operator of a Hg Budget unit shall operate the unit so as to discharge, or allow to be discharged, Hg emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(3) No owner or operator of a Hg Budget unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring

method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this subpart and part 75 of this chapter.

(4) No owner or operator of a Hg Budget unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this subpart, except under any one of the following circumstances:

(i) During the period that the unit is covered by an exemption under §60.4105 that is in effect;

(ii) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this subpart and part 75 of this chapter, by the permitting authority for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(iii) The Hg authorized account representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with §60.4171(c)(2).

§60.4171 Initial certification and recertification procedures.

(a) Requirements for initial certification. The owner or operator shall ensure that each monitoring system required by subpart I of part 75 of this chapter (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under §75.20 of this chapter by the applicable deadline in §60.4170(b).

(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in a certified monitoring system required by subpart I of part 75 of this chapter that may significantly affect the ability of the system to accurately measure or record Hg mass emissions or heat input rate or to meet the requirements of §75.21 of this chapter or appendix B to part 75 of this chapter, the owner or operator shall recertify the monitoring system in accordance with §75.20(b) of this chapter. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit’s operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify the continuous emission monitoring system in accordance with §75.20(b) of this chapter. Examples of changes that require recertification include: replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.

(c) Certification approval process for initial certification and recertification.

(1) Notification of certification. The Hg authorized account representative shall submit to the permitting authority, the appropriate EPA Regional Office, and the Administrator written notice of the dates of certification in accordance with §60.4173.

(2) Certification application. The Hg authorized account representative shall submit to the permitting authority a certification application for each monitoring system required under subpart I of part 75 of this chapter. A complete certification application shall include the information specified in subpart I of part 75 of this chapter. Notwithstanding this requirement, a certification application is not required by subpart I if the system has been previously certified under the Acid Rain Program or under an applicable State or Federal NO_x mass emission

reduction program that adopts the requirements of subpart H of part 75 of this chapter.

(3) Provisional certification date. The provisional certification date for a monitoring system shall be determined in accordance with §75.20(a)(3) of this chapter. A provisionally certified monitoring system may be used under the Hg Budget Trading Program for a period not to exceed 120 days after receipt by the permitting authority of the complete certification application for the monitoring system under paragraph (c)(2) of this section. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of part 75 of this chapter, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the permitting authority does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of receipt of the complete certification application by the permitting authority.

(4) Certification application formal approval process. The permitting authority will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (c)(2) of

this section. In the event the permitting authority does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of part 75 of this chapter and is included in the certification application will be deemed certified for use under the Hg Budget Trading Program.

(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of part 75 of this chapter, then the permitting authority will issue a written notice of approval of the certification application within 120 days of receipt.

(ii) Incomplete application notice. A certification application will be considered complete when all of the applicable information required to be submitted under paragraph (c)(2) of this section has been received by the permitting authority. If the certification application is not complete, then the permitting authority will issue a written notice of incompleteness that sets a reasonable date by which the Hg authorized account representative must submit the additional information required to complete the certification application. If the Hg authorized account representative does not comply with the notice of incompleteness by the specified date, then the permitting authority may issue a notice of disapproval under paragraph (c)(4)(iii) of this section. The 120-day review period shall not begin prior to receipt of a complete certification application.

(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements of this part, or if the certification application is incomplete and the requirement for disapproval under paragraph (c)(4)(ii) of this section has been met, then the permitting authority will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the permitting authority and the data measured and recorded by each uncertified monitoring system shall not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under §75.20(a)(3) of this chapter). The owner or operator shall follow the procedures for loss of certification in paragraph (c)(5) of this section for each monitoring system that is disapproved for initial certification.

(iv) Audit decertification. The permitting authority may issue a notice of disapproval of the certification status of a monitor in accordance with §60.4172(b).

(5) Procedures for loss of certification. If the Permitting authority issues a notice of disapproval of a certification application under paragraph (c)(4)(iii) of this section or a notice of disapproval of certification status under paragraph (c)(4)(iv)of this section, then:

(i) The owner or operator shall substitute the following values, for each hour of unit operation during the period of invalid data specified under §75.20(a)(4)(iii), §75.20(b)(5), or §75.21(e) of this chapter and continuing until the date and hour specified under §75.20(a)(5)(i) of this chapter:

(A) For units that the owner or operator monitors for Hg emission rate and heat input rate, the maximum potential Hg emission rate and the maximum potential hourly heat input of the unit; and

(B) For units that the owner or operator monitors for Hg mass emissions using a Hg pollutant concentration monitor and a flow monitor, the maximum potential concentration of Hg and the maximum potential flow rate under section 2.1.4 of appendix A of part 75 of this chapter.

(ii) The Hg authorized account representative shall submit a notification of certification retest dates and a new certification application in accordance with paragraphs (c)(1) and (c)(2) of this section.

(iii) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the permitting authority's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.

(d) Certification/recertification procedures for alternative monitoring systems. The Hg authorized account representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator and, if applicable, the permitting authority under subpart E of part 75 of this chapter shall comply with the applicable certification procedures of paragraph (a) of this section before using the system under the Hg Budget Trading Program. The Hg authorized account representative shall also comply with the applicable recertification procedures of paragraph (b) of this section. Section 75.20(f) of this chapter shall apply to such alternative monitoring system.

(e) Hg Budget units subject to other programs. For Hg Budget units that are also subject to the Acid Rain Program or an applicable State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of part 75 of this chapter, the owner or operator shall meet the applicable initial certification and recertification requirements of these programs, in addition to the requirements of this section.

§60.4172 Out of control periods.

(a) Whenever any monitoring system fails to meet the quality assurance or data validation requirements of part 75 of this chapter, data shall be substituted using the applicable procedures in subpart D of part 75 of this chapter.

(b) Audit decertification. Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under §60.4171 or the applicable provisions of part 75 of this chapter, both at the time of the initial certification or recertification application submission and at the time of the audit, the permitting authority will issue a notice of disapproval of the certification status of such system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the permitting authority or the Administrator. By issuing the notice of disapproval, the permitting authority revokes prospectively the certification status of the system. The data measured and recorded by the system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the system.

§60.4173 Notifications.

The Hg authorized account representative for a Hg Budget unit shall submit written notice to the permitting authority and the Administrator in accordance with §75.61 of this chapter, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the permitting authority.

§60.4174 Recordkeeping and reporting.

(a) General provisions.

(1) The Hg authorized account representative shall comply with all recordkeeping and reporting requirements in this section and with the requirements of §60.4110(e)(1).

(2) If a Hg Budget unit is subject to an Acid Rain emission limitation or an applicable State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of part 75 of this chapter, and the Hg authorized account representative who signed and certified any submission that is made under subpart F or G of part 75

of this chapter and that includes data and information required under this subpart or subpart I of part 75 of this chapter is not the same person as the designated representative, the alternative designated representative, or the NO_x authorized account representative for the unit under parts 72 or 75 of this chapter, then the submission must also be signed by the designated representative or the alternative designated representative, and the NO_x authorized account representative, as applicable.

(b) Monitoring Plans.

(1) The owner or operator of a Hg Budget unit shall comply with requirements of §75.62 of this chapter, except that the monitoring plan is only required to include the information required by subpart I of part 75 of this chapter.

(2) For Hg Budget units that are also subject to the Acid Rain Program or an applicable State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of part 75 of this chapter, the owner or operator shall comply with requirements of §§75.62 or 75.73(c), as applicable, of this chapter, except that the monitoring plan shall also include all of the information required by subpart I of part 75 of this chapter.

(c) Certification Applications. The Hg authorized account representative shall submit an application to the permitting authority within 45 days after completing all initial certification or recertification tests required under §60.4171 including the information required under subpart I of part 75 of this chapter.

(d) Quarterly reports. The Hg authorized account representative shall submit quarterly reports, as follows:

(1) The Hg authorized account representative shall submit a quarterly report for each calendar quarter beginning with:

(i) For a unit that commences commercial operation before July 1, 2008, the calendar quarter covering January 1, 2009 through March 31, 2009. Data shall be reported from the first hour on January 1, 2009; or

(ii) For a unit that commences commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the date of provisional certification or the relevant deadline for initial certification under §60.4170(b), unless that quarter is the third or fourth quarter of 2008, in which case reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009. Data shall be reported from the later of the date and hour corresponding to the date and hour of provisional certification or the first hour on January 1, 2009.

(2) The Hg authorized account representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in subpart I of part 75 of this chapter and §75.64 of this chapter.

(i) For Hg Budget units that are also subject to an Acid Rain emissions limitation, quarterly reports shall include the data and information required in subpart I of 40 CFR part 75 of this chapter and the data and information required in subpart G of 40 CFR part 75 of this chapter.

(ii) For Hg Budget units that are also subject to an applicable State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of 40 CFR part 75 of this chapter, quarterly reports shall include the data and information required in subpart H of 40 CFR part 75 of this chapter and the information and data required in subpart I of 40 CFR part 75 of this chapter.

(iii) For Hg Budget units not subject to an Acid Rain emissions limitation or an applicable State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of 40 CFR part 75 of this chapter, quarterly reports shall only include the data and information required in subpart I of part 75 of this chapter.

(3) Compliance certification. The Hg authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit’s emissions are correctly and fully monitored. The certification shall state that:

(i) The monitoring data submitted were recorded in accordance with the applicable requirements of this subpart and part 75 of this chapter, including the quality assurance procedures and specifications; and

(ii) For a unit with add-on Hg emission controls or that has an installed flue gas desulfurization system, for all hours where Hg data are substituted in accordance with §75.38(b) of this chapter, the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B of 40 CFR part 75 of this chapter and the substitute values do not systematically underestimate Hg emissions.

§60.4175 Petitions.

(a) The Hg authorized account representative of a Hg Budget unit that is subject to an Acid Rain emissions limitation may submit a petition under §75.66 of this chapter to the Administrator requesting approval to apply an alternative to any requirement of this subpart.

(1) Application of an alternative to any requirement of this subpart is in accordance with this subpart only to the extent that the petition is approved by the Administrator, in consultation with the permitting authority.

(2) Notwithstanding paragraph (a)(1) of this section, if the petition requests approval to apply an alternative to a requirement concerning any additional CEMS required under the common stack provisions of §75.82 of this chapter, the petition is governed by paragraph (b) of this section.

(b) The Hg authorized account representative of a Hg Budget unit that is not subject to an Acid Rain emissions limitation may submit a petition under §75.66 of this chapter to the permitting authority and the Administrator requesting approval to apply an alternative to any requirement of this subpart.

(1) The Hg authorized account representative of a Hg Budget unit that is subject to an Acid Rain emissions limitation may submit a petition under §75.66 of this chapter to the permitting authority and the Administrator requesting approval to apply an alternative to a requirement concerning any additional CEMS required under the common stack provisions of §75.82 of this chapter or a Hg emission rate (or Hg-diluent) monitoring system, a Hg concentration

monitoring system, or a carbon canister monitoring system, as applicable, used under §75.81 of this chapter.

(2) Application of an alternative to any requirement of this subpart is in accordance with this subpart only to the extent that the petition is approved by both the permitting authority and the Administrator.

§60.4176 Additional Requirements to Provide Heat Input Data.

The owner or operator of a Hg Budget unit that monitors and reports Hg mass emissions using a Hg concentration system and a flow system shall also monitor and report heat input rate at the unit level using the procedures set forth in part 75 of this chapter.

PART 72—PERMITS REGULATION

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

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

2. Section 72.2 is amended by revising the introductory text and adding paragraphs (7) and (8) to the definition of “Continuous emission monitoring system or CEMS” and adding, in alphabetical order, a new definition for “sorbent trap monitoring system”, to read as follows:

§72.2 Definitions.

*   *   *   *   *

Continuous emission monitoring system or CEMS means the equipment required by part 75 of this chapter used to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of SO_2, NO_x, or CO_2 emissions or stack gas volumetric flow rate. The following are the principal types of continuous emission monitoring systems required under part 75 of this chapter. Sections 75.10 through 75.18, §75.71(a), and §75.81 of this chapter indicate which type(s) of CEMS is required for specific applications:

*   *   *

(7) A mercury (Hg) emission rate (or Hg-diluent) monitoring system, consisting of a Hg pollutant concentration monitor, a diluent gas (CO_2 or O_2) monitor, and an automated DAHS. A Hg-diluent monitoring system provides a permanent, continuous record of: Hg concentration in units of micrograms per dry standard cubic meter (μg/dscm), diluent gas concentration in units of percent O_2 or CO_2 (% O_2 or CO_2), and Hg emission rate in units of pounds per trillion British thermal units (lb/10^{12} Btu);

(8) A Hg concentration monitoring system, consisting of a Hg pollutant concentration monitor and an automated DAHS.

A Hg concentration monitoring system provides a permanent, continuous record of Hg emissions in units of micrograms per dry standard cubic meter (μg/dscm).

*   *   *   *   *

Sorbent trap monitoring system means the equipment required by part 75 of this chapter for the continuous monitoring of Hg emissions, using paired sorbent traps containing iodinized charcoal (IC) or other suitable reagent(s). The monitoring system consists of a probe, the paired sorbent traps, a heated umbilical line, moisture removal components, an air-tight sample pump, a dry gas meter, and an automated data acquisition and handling system. The monitoring system samples the stack gas at a rate proportional to the stack gas volumetric flow rate. The sampling is a batch process. The sorbent traps can be used for a time period ranging from hours to weeks in length, depending upon the Hg concentration in the stack. Using the sample volume measured by the dry gas meter and the results of laboratory analysis of the sorbent traps, the Hg concentration in the stack gas is determined, in units of micrograms per dry standard cubic meter (μg/dscm). Mercury mass emissions for each hour in the sampling period are calculated using the higher of the two average Hg concentrations for that period in conjunction with contemporaneous measurements of stack gas flow rate.

* * * * *

PART 75—CONTINUOUS EMISSION MONITORING

3. The authority citation for Part 75 continues to read as follows:

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

4. Section 75.2 is amended by adding paragraph (d) to read as follows:

§75.2 Applicability.

*** * * * ***

(d) The provisions of this part apply to sources subject to a State or Federal mercury (Hg) mass emission reduction program, to the extent that these provisions are adopted as requirements under such a program.

5. Section 75.10 is amended by revising the second sentence of paragraph (d)(1) and revising the first two sentences of paragraph (d)(3) to read as follows:

§75.10 General operating requirements

* * * * *

(d) * * *

(1) * * * The owner or operator shall reduce all SO_2 concentrations, volumetric flow, SO_2 mass emissions, CO_2 concentration, O_2 concentration, CO_2 mass emissions (if applicable), NO_x concentration, NO_x emission rate, Hg

concentration, and Hg emission rate data collected by the monitors to hourly averages.

*   *   *   *   *

(3) Failure of an SO_2, CO_2, or O_2 pollutant concentration monitor, NO_x concentration monitor, Hg concentration monitor, flow monitor, moisture monitor, NO_x-diluent continuous emission monitoring system, or Hg-diluent continuous emission monitoring system to acquire the minimum number of data points for calculation of an hourly average in paragraph (d)(1) of this section shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour. For a NO_x-diluent monitoring system or for a Hg-diluent monitoring system, hourly average NO_x (or Hg) emission rate in lb/mmBtu (or lb/10^{12} Btu) is valid only if the minimum number of data points is acquired by both the NO_x (or Hg) pollutant concentration monitor and the diluent monitor (CO_2 or O_2). *   *   *

*   *   *   *   *

6. Section 75.15 is added to read as follows:

§75.15 Special provisions for measuring Hg mass emissions with sorbent trap monitoring systems

For an affected coal-fired unit under a State or Federal Hg mass emission reduction program that adopts the provisions of subpart I of this part, if the owner or operator elects to use sorbent trap monitoring systems (as defined in §72.2 of this chapter) to quantify Hg mass emissions:

(a) For sorbent trap monitoring system (whether primary or redundant backup), the use of paired sorbent traps, as described in Method 324 in appendix B to part 63 of this chapter, is required;

(b) Each sorbent trap shall have both a main portion and a backup portion;

(c) A certified flow monitoring system is required;

(d) Correction for stack gas moisture content is required, and in some cases, a certified O_2 or CO_2 monitoring system is required (see §75.81(b));

(e) Each sorbent trap monitoring system shall be installed and operated in accordance with EPA Method 324. The Hg sampling shall be proportional to the stack gas volumetric flow rate. Use an intermediate sampling rate of 0.3 to 0.5 liters per minute through each sorbent trap when the unit is operating at the normal (i.e., most frequently-used) load level, as defined in section 6.5.2.1(d) of appendix A to this part. Increase or decrease the sampling rate by 0.1 liters/min when the unit operates at the other two load levels. For example, if mid load level is normal and the sampling rate is set at 0.4 liters/min, decrease the sampling rate to 0.3 liters/min when the unit is operating at low load and increase it to 0.5 liters/min when the unit operates at high load.

(f) At the beginning and end of each sample collection period, record the dry gas meter readings, for the purposes of determining the total volume of dry gas sampled during the collection period.

(g) After each sample collection period, the mass of Hg adsorbed in each sorbent trap (both the main and backup portions) shall be determined according to Method 324.

(h) The hourly Hg mass emissions for each collection period are determined using the results of the Method 324 analyses in conjunction with contemporaneous data recorded by the stack flow monitor. For each pair of sorbent traps analyzed, the higher of the two Hg concentrations shall be used for reporting purposes under §75.84(f).

(i) All unit operating hours for which valid Hg concentration data are obtained with the primary sorbent trap monitoring system (as verified using the quality assurance procedures in section 8.3 of Method 324) shall be reported in the electronic quarterly report under §75.84(f). For hours in which data from the primary monitoring system are invalid, the owner or operator may report valid Hg concentration data from a certified redundant backup monitoring system or from the applicable reference method under §75.22. If no quality-assured Hg concentration are available for a particular hour, the owner or operator shall report the appropriate substitute data value in accordance with §75.39.

(j) Initial certification requirements and additional quality-assurance requirements for the sorbent trap monitoring systems are found in §75.20(c)(9), in section 6.5.7 of appendix A to this part and in sections 1.5 and 2.3 of appendix B to this part.

7. Section 75.20 is amended by:

a. Revising paragraph (a)(5)(i);

b. Revising the first sentence of paragraph (b) introductory text;

c. Revising paragraph (c)(1);

d. Redesignating existing paragraphs (c)(9) and (c)(10) as paragraphs (c)(10) and (c)(11), respectively;

e. Adding a new paragraph (c)(9); and

f. Revising paragraph (d)(2)(v).

The revisions and additions read as follows:

§75.20 Initial certification and recertification procedures

(a) * * *

(5) * * *

(i) Until such time, date, and hour as the continuous emission monitoring system can be adjusted, repaired, or replaced and certification tests successfully completed (or, if the conditional data validation procedures in paragraphs (b)(3)(ii) through (b)(3)(ix) of this section are used, until a probationary calibration error test is passed following corrective actions in accordance with paragraph (b)(3)(ii) of this section), the owner or operator shall substitute the following values, as applicable, for each hour of unit operation during the period of invalid data specified in paragraph (a)(4)(iii) of this section or in §75.21: the maximum potential concentration of SO_2, as defined in section 2.1.1.1 of appendix A to this part, to report SO_2 concentration; the maximum potential NO_x emission rate, as defined in §72.2 of this chapter, to report NO_x emissions in lb/mmBtu; the maximum potential concentration of NO_x, as defined in section 2.1.2.1 of appendix A to this part, to report NO_x emissions in ppm (when a NO_x concentration monitoring system is used to determine NO_x mass emissions, as defined under §75.71(a)(2)); the maximum potential Hg emission rate, as defined in section 2.1.7 of appendix A to this part, to report Hg emissions in lb/10^{12} Btu; the maximum potential concentration of Hg, as defined in section 2.1.7 of appendix A to this part, to report Hg emissions in µg/dcsm (when a Hg concentration monitoring system or a sorbent trap monitoring system is used to determine Hg mass emissions, as defined under §75.81(b)); the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, to report volumetric flow; the maximum potential concentration of CO_2, as defined in section 2.1.3.1 of appendix A to this part, to report CO_2 concentration data; and either the minimum potential moisture percentage, as defined in section 2.1.5 of appendix A to this part or, if Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate, the maximum potential moisture percentage, as defined in section 2.1.6 of appendix A to this part; and

* * * * *

(b) *Recertification approval process.* Whenever the owner or operator makes a replacement, modification, or change in a certified continuous emission monitoring system or continuous opacity monitoring system that may significantly affect the ability of the system to accurately measure or record the SO_2 or CO_2 concentration, stack gas volumetric flow rate, NO_x emission rate, NO_x concentration, Hg concentration, Hg emission rate, percent moisture, or opacity, or to meet the requirements of §75.21 or appendix B to this part, the owner or operator shall recertify the continuous emission monitoring system or continuous opacity monitoring system, according to the procedures in this paragraph. * * *

* * * * *

(c) * * *

(1) For each SO_2 pollutant concentration monitor, each NO_x concentration monitoring system used to determine NO_x mass emissions, as defined under §75.71(a)(2), each Hg concentration monitoring system, each NO_x-diluent continuous emission monitoring system, and each Hg-diluent monitoring system:

(i) A 7-day calibration error test, where, for the NO_x-diluent and Hg-diluent continuous emission monitoring systems, the test is performed separately on the NO_x (or Hg) pollutant concentration monitor and the diluent gas monitor;

(ii) A linearity check, where, for the NO_x-diluent and Hg-diluent continuous emission monitoring systems, the test is performed separately on the NO_x (or Hg) pollutant concentration monitor and the diluent gas monitor;

(iii) A relative accuracy test audit. For the NO_x-diluent continuous emission monitoring system, the RATA shall be done on a system basis, in units of lb/mmBtu. For the NO_x concentration monitoring system, the RATA shall be done on a ppm basis. For the Hg concentration monitoring system, the RATA shall be done on a μg/dscm basis. For the Hg-diluent monitoring system, the RATA shall be done on a lb/10^{12} Btu basis;

(iv) A bias test;

(v) A cycle time test; and

(vi) For Hg monitors only, a 3-point check of the converter, using $HgCl_2$ standards, as described in sections 8.3 and 13.1 of Performance Specification 12A in appendix B to part 60 of this chapter.

* * * * *

(9) For each sorbent trap monitoring system, perform a RATA, on a μg/dscm basis, and a bias test.

* * * * *

(d) * * *

(2) * * *

(v) For each parameter monitored (i.e., SO_2, CO_2, O_2, NO_x, Hg or flow rate) at each unit or stack, a regular non-redundant backup CEMS may not be used to report data at that affected unit or common stack for more than 720 hours in any one calendar year (or 720 hours in any ozone season, for sources that report emission data only during the ozone season, in accordance with §75.74(c)), unless the CEMS passes a RATA at that unit or stack. For each parameter monitored at each unit or stack, the use of a like-kind replacement non-redundant backup analyzer (or analyzers) is restricted to 720 cumulative hours per calendar year (or ozone season, as applicable), unless the owner or operator redesignates the like-kind replacement analyzer(s) as component(s) of regular non-redundant backup CEMS and each redesignated CEMS passes a RATA at that unit or stack.

*   *   *   *   *

8. Section 75.21 is amended by revising paragraph (a)(3) to read as follows:

§75.21 Quality assurance and quality control requirements.

(a) *   *   *

(3) The owner or operator shall perform quality assurance upon a reference method backup monitoring system according to the requirements of method 2, 6C, 7E, or 3A in appendix A of part 60 of this chapter (supplemented, as necessary, by guidance from the Administrator), or the Ontario Hydro method, as applicable, instead of the procedures specified in appendix B of this part.

*   *   *   *   *

9. Section 75.22 is amended by adding new paragraphs (a)(7) and (b)(5) to read as follows:

§75.22 Reference methods

(a) * * *

(7) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (also known as the Ontario Hydro Method) is the reference method for determining Hg concentration.

(b) * * *

(5) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (also known as the Ontario Hydro Method) for determining Hg concentration.

* * * * *

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

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

* * * * *

(d) When the bias test indicates that an SO_2 monitor, a flow monitor, a NO_x-diluent continuous emission monitoring system, a Hg-diluent monitoring system, a NO_x concentration monitoring system used to determine NO_x mass emissions, as defined in §75.71(a)(2), a Hg concentration monitoring system or a sorbent trap monitoring system is biased low (i.e., the arithmetic mean of the differences between the reference method value and the monitor or monitoring system measurements in a relative accuracy test audit exceed the bias statistic in section 7 of appendix A to this part), the owner or operator shall adjust the monitor or continuous emission monitoring system to eliminate the cause of bias such that it passes the bias test or calculate and use the bias adjustment factor as specified in section 2.3.4 of appendix B to this part.

*   *   *   *   *

11. Section 75.31 is amended by:

a. Revising the first sentence of paragraph (a);

b. Revising paragraph (b) introductory text; and

c. Revising paragraphs (b)(1) and (b)(2).

The revisions read as follows:

§75.31 Initial missing data procedures.

(a) During the first 720 quality-assured monitor operating hours following initial certification of the required SO_2, CO_2, O_2, Hg concentration, Hg-diluent, or moisture monitoring system(s) at a particular unit or stack location *   *   *

(b) *SO_2, CO_2, or O_2 concentration data, Hg concentration data, Hg emission rate data, and moisture data*. For each hour of missing SO_2, Hg or CO_2 pollutant concentration data (including CO_2 data converted from O_2 data using the procedures in appendix F of this part), missing Hg emission rate data, or missing O_2 or CO_2 diluent concentration data used to calculate heat input, or missing moisture data, the owner or operator shall calculate the substitute data as follows:

(1) Whenever prior quality-assured data exist, the owner or operator shall substitute, by means of the data acquisition and handling system, for each hour of missing data, the average of the hourly SO_2, CO_2 , Hg or O_2 concentrations, Hg emission rates, or moisture percentages recorded by a certified monitor for the unit operating hour immediately before and the unit operating hour immediately after the missing data period.

(2) Whenever no prior quality assured SO_2, Hg, CO_2 or O_2 concentration data, Hg emission rate data, or moisture data exist, the owner or operator shall substitute, as applicable, for each hour of missing data, the maximum potential SO_2 concentration or the maximum potential CO_2 concentration or the minimum potential O_2 concentration or (unless Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate) the minimum potential moisture percentage, or the maximum potential Hg concentration, or the maximum potential Hg emission rate, as specified, respectively, in

sections 2.1.1.1, 2.1.3.1, 2.1.3.2, 2.1.5, and 2.1.7 of appendix A to this part. If Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used to determine NO_x emission rate, substitute the maximum potential moisture percentage, as specified in section 2.1.6 of appendix A to this part.

* * * * *

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

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

(a) Following initial certification of the required SO_2, CO_2, O_2 , Hg concentration, Hg-diluent, or moisture monitoring system(s) at a particular unit or stack location

* * *

* * * * *

13. Table 1 in section 75.33 is revised as follows:

§75.33 Standard missing data procedures for SO_2, NO_x and flow rate.

* * *

Table 1.--Missing Data Procedure for SO_2 CEMS, CO_2 CEMS, Moisture CEMS, Hg CEMS, and Diluent (CO_2 or O_2) Monitors for Heat Input Determination

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours)[2]	Method	Lookback period
95 or more	$N \leq 24$	Average	HB/HA
	$N > 24$	For SO_2, CO_2, Hg, and H_2O**, the greater of: Average . . . . 90th percentile . . . . For O_2 and H_2O^x, the lesser of: Average . . . . 10th percentile	HB/HA 720 hours* HB/HA. 720 hours*
90 or more, but below 95	$N \leq 8$	Average	HB/HA
	$N > 8$	For SO_2, CO_2, Hg, and H_2O**, the greater of: Average . . . . 95th percentile . . . . For O_2 and H_2O^x, the lesser of: Average . . . . 5th percentile	HB/HA 720 hours* HB/HA 720 hours*
80 or more, but below 90......	$N > 0$	For SO_2, CO_2, Hg, and H_2O**, Maximum value[1] . . . . For O_2 and H_2O^x: Minimum value[1]	720 hours* 720 hours*
Below 80.............................	$N > 0$	Maximum potential concentration or % (for SO_2, CO_2, , Hg, and H_2O**) *or* Minimum potential concentration or % (for O_2 and H_2O^x)	None

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

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

[1] Where a unit with add-on SO_2 emission controls can demonstrate that the controls are operating properly, as provided in §75.34, the unit may, upon approval, use the maximum controlled emission rate from the previous 720 operating hours.

[2] During unit operating hours.

[x] Use this algorithm for moisture except when Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used for NO_x emission rate.

** Use this algorithm for moisture *only* when Equation 19-3, 19-4 or 19-8 in Method 19 in appendix A to part 60 of this chapter is used for NO_x emission rate.

*   *   *   *   *

14. Subpart D is further amended by adding two new sections, §75.38 and §75.39 to read as follows:

§75.38 Standard missing data procedures for Hg CEMS

(a) Upon completion of 720 quality assured monitor operating hours using the initial missing data procedures of §75.31(b), the owner or operator shall provide substitute data for Hg concentration or for Hg emission rate (as applicable), in accordance with the procedures in §75.33(b)(1) through (b)(4), except that the term “Hg concentration” or “Hg emission rate” shall apply rather than “SO_2 concentration,” the term “Hg concentration monitoring system” or “Hg-diluent monitoring system” shall apply rather than “SO_2 pollutant concentration monitor,” and the term “maximum potential Hg concentration, as defined in section 2.1.7 of appendix A to this part” or “maximum potential Hg emission rate, as defined in section 2.1.7 of appendix A to this part” shall apply, rather than “maximum potential SO_2 concentration.”

(b) For a unit equipped with a flue gas desulfurization (FGD) system that significantly reduces the concentration of Hg emitted to the atmosphere (including circulating fluidized bed units that use limestone injection), or for a unit equipped with add-on Hg emission controls (e.g. , carbon injection), the standard missing data procedures in paragraph (a) of this section may only be used for hours in which the SO_2 or Hg emission controls are documented to be operating properly, as described in §75.58(b)(3). For any hour(s) in the missing data period for which this documentation is unavailable, the owner or operator shall report, as applicable, the maximum potential Hg concentration, as defined in section 2.1.7 of appendix A to this part or the maximum potential Hg emission rate, as defined in section 2.1.7 of appendix A to this part. In addition, under §75.64(c), the designated representative shall submit as part of each electronic quarterly report, a certification statement, verifying the proper operation of the SO_2 or Hg emission controls for each missing data period in which the procedures in paragraph (a) of this section are applied.

(c) For units with FGD systems or add-on Hg controls, when the percent monitor data availability is less than 90.0 percent, and a missing data period occurs, the owner or operator may petition to report the maximum controlled Hg concentration or emission rate in the previous 720 quality-assured monitor operating hours, consistent with §75.34(a)(3).

§75.39 Missing data procedures for sorbent trap monitoring systems

(a) If a sorbent trap monitoring system has not been certified by the applicable compliance date specified under a State or Federal Hg mass emission reduction program that adopts the requirements of subpart I of this part, the owner or operator shall report the maximum potential Hg concentration, as defined in section 2.1.7 of appendix A to this part, until the system is certified.

(b) For a certified sorbent trap system, a missing data period will occur whenever:

(1) A gas sample is not extracted from the stack (e.g. during a monitoring system malfunction or when the system undergoes maintenance); or

(2) The results of the Hg analysis for either one (or both) of the paired sorbent traps are missing or invalid (as determined using the quality assurance procedures in section 8.3 of Method 324). The missing data period begins with the hour in which the paired sorbent traps for which the Hg analysis is missing or invalid were put into service. The missing data period ends at the first hour in which valid Hg concentration data are obtained with another pair of sorbent traps.

(c) *Initial missing data procedures.* Use these missing data procedures until 720 hours of quality-assured data have been collected with the sorbent trap monitoring system(s), following initial certification. For each hour of the missing data period, the substitute data value for Hg concentration shall be the average Hg concentration from all valid sorbent trap analyses to date, including data from the initial certification test runs.

(d) *Standard missing data procedures*. Once 720 quality-assured hours of data have been obtained with the sorbent trap system(s), begin reporting the percent monitor data availability in accordance with §75.32 and switch from the initial missing data procedures in paragraph (c) of this section to the following standard missing data procedures:

(1) If the percent monitor data availability (PMA) at the end of the missing data period is ≥ 95.0%, report the average Hg concentration for all valid sorbent trap analyses in the previous 12 months.

(2) If the PMA at the end of the missing data period is ≥ 90.0%, but < 95.0%, report the highest Hg concentration obtained from all of the valid sorbent trap analyses in the previous 12 months.

(3) If the PMA at the end of the missing data period is ≥ 80.0%, but < 90.0%, report 1.5 times the highest Hg concentration obtained from all of the valid sorbent trap analyses in the previous 12 months.

(4) If the PMA at the end of the missing data period is

< 80.0%, report the maximum potential Hg concentration, as defined in section 2.1.7 of appendix A to this part.

(5) For the purposes of paragraphs (d)(1), (d)(2), and (d)(3) of this section, if fewer than 12 months have elapsed since initial certification, use whatever valid sorbent trap analyses are available to determine the appropriate substitute data values.

(e) Notwithstanding the requirements of paragraphs (c) and (d) of this section, if the unit has add-on Hg emission controls or is equipped with a flue gas desulfurization system that significantly reduces Hg emissions, the owner or operator shall report the maximum potential Hg concentration, as defined in section 2.1.7 of appendix A to this part, for any hour(s) in the missing data period for which proper operation of the Hg emission controls or FGD system is not documented according to §75.58(b)(3).

15. Section 75.53 is amended by:

a. Revising paragraph (e)(1)(i)(E);

b. Revising paragraph (e)(1)(iv) introductory text; and

c. Revising paragraph (e)(1)(x).

The revisions read as follows:

§75.53 Monitoring plan.

* * * * *

(e) * * *

(1) * * *

(i) * * *

(E) Type(s) of emission controls for SO_2, NO_x, Hg, and particulates installed or to be installed, including specifications of whether such controls are pre-combustion, post-combustion, or integral to the combustion process; control equipment code, installation date, and optimization date; control equipment retirement date (if applicable); primary/secondary controls indicator; and an indicator for whether the controls are an original installation;

* * * * *

(iv) Identification and description of each monitoring component (including each monitor and its identifiable components, such as analyzer and/or probe) in the CEMS (e.g., SO_2 pollutant concentration monitor, flow monitor, moisture monitor; NO_x pollutant concentration monitor, Hg monitor, and diluent gas monitor), the continuous opacity monitoring system, or the excepted monitoring system (e.g., fuel flowmeter, data acquisition and handling system), including:

* * * * *

(x) For each parameter monitored: scale, maximum potential concentration (and method of calculation), maximum expected concentration (if applicable) (and method of calculation), maximum potential flow rate (and method of calculation), maximum potential NO_x emission rate, maximum potential Hg emission rate, span value, full-scale range, daily calibration units of measure, span effective date/hour, span inactivation date/hour, indication of whether dual spans are required, default high range value, flow rate span, and flow rate span value and full scale value (in scfh) for each unit or stack using SO_2, NO_x, CO_2, O_2, Hg, or flow component monitors.

*   *   *   *   *

16. Section 75.57 is amended by adding new paragraphs (i) and (j) to read as follows:

§75.57 General recordkeeping provisions.

*   *   *   *   *

(i) *Hg emission record provisions (CEMS).* The owner or operator shall record for each hour the information required by this paragraph for each affected unit using Hg CEMS in combination with flow rate, moisture, and (in certain cases) diluent gas monitors, to determine Hg mass emissions under a State or Federal Hg mass emissions reduction program that adopts the requirements of subpart I of this part.

(1) For Hg concentration during unit operation, as measured and reported from each certified primary monitor,

certified back-up monitor, or other approved method of emissions determination:

(i) Component-system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average Hg concentration (μg/dscm, rounded to the nearest tenth);

(iv) For Hg concentration monitoring systems only, record the bias-adjusted hourly average Hg concentration (μg/dscm, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in §75.24(d);

(v) Method of determination for hourly average Hg concentration using Codes 1-55 in Table 4a of this section; and

(vi) For Hg concentration monitoring systems only, record the percent monitor data availability (to the nearest tenth of a percent), calculated pursuant to §75.32.

(2) For flue gas moisture content during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with §75.11(b), §75.12(b), or approved under §75.66):

(i) Component-system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average moisture content of flue gas (percent, rounded to the nearest tenth). If the continuous moisture monitoring system consists of wet- and dry-basis oxygen analyzers, also record both the wet- and dry-basis oxygen hourly averages (in percent O_2, rounded to the nearest tenth);

(iv) Percent monitor data availability (recorded to the nearest tenth of a percent) for the moisture monitoring system, calculated pursuant to §75.32; and

(v) Method of determination for hourly average moisture percentage, using Codes 1-55 in Table 4a of this section.

(3) For diluent gas (O_2 or CO_2) concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:

(i) Component-system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average diluent gas (O_2 or CO_2) concentration (in percent, rounded to the nearest tenth);

(iv) Method of determination code for diluent gas (O_2 or

CO_2) concentration data using Codes 1-55, in Table 4a of this section; and

(v) If the diluent monitor is used only for heat input rate determination, record the percent monitor data availability (to the nearest tenth of a percent) for the O_2 or CO_2 monitoring system, calculated pursuant to §75.32.

(4) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under paragraphs (c)(2)(i) through (c)(2)(vi) of this section.

(5) For Hg emission rate during unit operation, as measured and reported from each certified primary Hg-diluent monitoring system, certified back-up monitoring system, or other approved method of emissions determination:

(i) Monitoring system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average Hg emission rate (in units of lb/10^{12} Btu, rounded to three decimal places);

(iv) Hourly average Hg emission rate (in units of lb/10^{12} Btu, rounded to three decimal places), adjusted for bias if a bias adjustment factor is required, as provided in §75.24(d);

(v) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated pursuant to §75.32;

(vi) Method of determination for hourly average Hg emission rate, using Codes 1-55 in Table 4a of this section;

(vii) Identification codes for emissions formulas used to derive hourly average Hg emission rate and total Hg mass emissions, as provided in §75.53; and

(viii) The F-factor used to convert Hg concentrations into emission rates.

(6) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or non-redundant back-up monitoring system(s), or other approved method(s) of emissions determination:

(i) Date and hour;

(ii) Hourly Hg mass emissions (ounces, rounded to one decimal place);

(iii) Hourly Hg mass emissions (ounces, rounded to one decimal place), adjusted for bias if a bias adjustment factor is required, as provided in §75.24(d); and

(iv) Identification code for emissions formula used to derive hourly Hg mass emissions from Hg concentration, flow rate and moisture data, as provided in §75.53.

(j) *Hg emission record provisions (sorbent trap systems).* The owner or operator shall record for each hour the information required by this paragraph, for each affected unit using sorbent trap monitoring systems in combination with flow rate, moisture, and (in certain cases) diluent gas monitors, to determine Hg mass emissions under a State or Federal Hg mass emissions reduction program that adopts the requirements of subpart I of this part.

(1) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:

(i) Component-system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average Hg concentration (µg/dscm, rounded to the nearest tenth);

(iv) The bias-adjusted hourly average Hg concentration (µg/dscm, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in §75.24(d);

(v) Method of determination for hourly average Hg concentration using Codes 1-55 in Table 4a of this section; and

(vi) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated pursuant to §75.32;

(2) For flue gas moisture content during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with §75.11(b), §75.12(b), or approved under §75.66):

(i) Component-system identification code, as provided in §75.53;

(ii) Date and hour;

(iii) Hourly average moisture content of flue gas (percent, rounded to the nearest tenth). If the continuous moisture monitoring system consists of wet- and dry-basis oxygen analyzers, also record both the wet- and dry-basis oxygen hourly averages (in percent O_2, rounded to the nearest tenth);

(iv) Percent monitor data availability (recorded to the nearest tenth of a percent) for the moisture monitoring system, calculated pursuant to §75.32; and

(v) Method of determination for hourly average moisture percentage, using Codes 1-55 in Table 4a of this section.

(3) For diluent gas (O_2 or CO_2) concentration during unit operation (if required for heat input determination), record the information required under paragraph (g) of this

section.

(4) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under paragraphs (c)(2)(i) through (c)(2)(vi) of this section.

(5) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or non-redundant back-up monitoring system(s), or other approved method(s) of emissions determination, record the information required under paragraph (i)(6) of this section.

(6) Record the average flow rate of stack gas through each sorbent trap (in liters per minute, rounded to the nearest tenth), and the unit or stack operating level (i.e., low, mid, or high, as defined in section 6.5.2.1 of appendix A to this part) during the hour.

17. Section 75.58 is amended by revising paragraphs (b)(3) introductory text, (b)(3)(i), and (b)(3)(ii) to read as follows:

§75.58 General recordkeeping provisions for specific situations.

*   *   *   *   *

(b) * * *

(3) Except as otherwise provided in §75.34 (d), for units with add-on SO_2 or NO_x emission controls following the provisions of §75.34(a)(1), (a)(2) or (a)(3), or for units with add-on Hg emission controls, the owner or operator shall record:

(i) Parametric data which demonstrate, for each hour of missing SO_2, , Hg, or NO_x emission data, the proper operation of the add-on emission controls, as described in the quality assurance/quality control program for the unit. The parametric data shall be maintained on site and shall be submitted, upon request, to the Administrator, EPA Regional office, State, or local agency;

(ii) A flag indicating, for each hour of missing SO_2 , Hg, or NO_x emission data, either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/quality control program, or that the add-on emission controls are not operating properly;

* * * * *

18. Section 75.59 is amended by:

a. Revising the introductory text of paragraphs (a)(1), (a)(3),(a)(5), (a)(5)(ii), (a)(6), and (a)(9);

b. Adding paragraphs (a)(7)(vii) and (a)(14);

c. Revising paragraph (a)(9)(vi); and

d. Revising the introductory text of paragraph (c).

The revisions read as follows:

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

* * * * *

(a) * * *

(1) For each SO_2 or NO_x pollutant concentration monitor, flow monitor, CO_2 pollutant concentration monitor (including O_2 monitors used to determine CO_2 emissions), Hg monitor, or diluent gas monitor (including wet- and dry-basis O_2 monitors used to determine percent moisture), the owner or operator shall record the following for all daily and 7-day calibration error tests and all off-line calibration demonstrations, including any follow-up tests after corrective action:

* * * * *

(3) For each SO_2 or NO_x pollutant concentration monitor, CO_2 pollutant concentration monitor (including O_2 monitors used to determine CO_2 emissions), Hg concentration monitor, or diluent gas monitor (including wet- and dry-basis O_2 monitors used to determine percent moisture), the owner or operator shall record the following for the initial and all subsequent linearity check(s) and converter checks

(Hg monitors, only), including any follow-up tests after corrective action:

*   *   *   *   *

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

(5) For each SO_2 pollutant concentration monitor, flow monitor, each CO_2 pollutant concentration monitor (including any O_2 concentration monitor used to determine CO_2 mass emissions or heat input), each NO_x-diluent continuous emission monitoring system, each NO_x concentration monitoring system, each diluent gas (O_2 or CO_2) monitor used to determine heat input, each moisture monitoring system, each Hg concentration monitoring system, each Hg-diluent monitoring system, each sorbent trap monitoring system, and each approved alternative monitoring system, the owner or operator shall record the following information for the initial and all subsequent relative accuracy test audits:

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

(5) For each SO_2 pollutant concentration monitor, flow monitor, each CO_2 pollutant concentration monitor (including any O_2 concentration monitor used to determine CO_2 mass emissions or heat input), each NO_x-diluent continuous emission monitoring system, each NO_x concentration

monitoring system, each diluent gas (O_2 or CO_2) monitor used to determine heat input, each moisture monitoring system, each Hg concentration monitoring system, each Hg-diluent monitoring system, each sorbent trap monitoring system, and each approved alternative monitoring system, the owner or operator shall record the following information for the initial and all subsequent relative accuracy test audits. Also record the applicable information for all periodic relative accuracy audits (RAAs) of sorbent trap monitoring systems:

* * * * *

(ii) Individual test run data from the relative accuracy test audit for the SO_2 concentration monitor, flow monitor, CO_2 pollutant concentration monitor, NO_x-diluent continuous emission monitoring system, SO_2-diluent continuous emission monitoring system, diluent gas (O_2 or CO_2) monitor used to determine heat input, NO_x concentration monitoring system, moisture monitoring system, Hg concentration monitoring system, Hg-diluent monitoring system, sorbent trap monitoring system, or approved alternative monitoring system, including:

* * * * *

(6) For each SO_2, NO_x, Hg, or CO_2 pollutant concentration monitor, NO_x-diluent continuous emission

monitoring system, Hg-diluent continuous emission monitoring system, NO_x concentration monitoring system, or diluent gas (O_2 or CO_2) monitor used to determine heat input, the owner or operator shall record the following information for the cycle time test:

* * * * *

(7) * * *

(vii) For each RATA run using the Ontario Hydro method to determine Hg concentration:

(A) Percent CO_2 and O_2 in the stack gas, dry basis;

(B) Moisture content of the stack gas (percent H_2O);

(C) Average stack temperature (◦ F);

(D) Dry gas volume metered (dscm);

(E) Percent isokinetic;

(F) Particle-bound Hg collected by the filter, blank, and probe rinse (μg);

(G) Oxidized Hg collected by the KCl impingers (μg)

(H) Elemental Hg collected in the HNO_3 /H_2O_2 impinger and in the $KMnO_4$ /H_2SO_4 impingers (μg);

(I) Total Hg, including particle-bound Hg (μg); and

(J) Total Hg, excluding particle-bound Hg (μg)

* * * * *

(9) When hardcopy relative accuracy test reports, certification reports, recertification reports, or

semiannual or annual reports for gas or flow rate CEMS, Hg CEMS, or sorbent trap monitoring systems are required or requested under §75.60(b)(6) or §75.63, the reports shall include, at a minimum, the following elements (as applicable to the type(s) of test(s) performed:

* * * * *

(vi) Laboratory calibrations of the source sampling equipment. For sorbent trap monitoring systems, the laboratory analyses of all sorbent traps, and information documenting the results of all Method 324 leak checks and other quality control procedures.

* * * * *

(14) For the sorbent traps used in sorbent trap monitoring systems to quantify Hg concentration under subpart I of this part (including sorbent traps used for relative accuracy testing), the owner or operator shall keep records of the following:

(i) The ID number of the monitoring system in which each sorbent trap was used to collect Hg;

(ii) The unique identification number of each sorbent trap;

(iii) The beginning and ending dates and hours of the data collection period for each sorbent trap;

(iv) The average Hg concentration (in μg/dscm) for the data collection period;

(v) Information documenting the results of the required Method 324 leak checks;

(vi) The Method 324 laboratory analysis of the Hg collected by each sorbent trap; and

(vii) Information documenting the results of the applicable quality control procedures in section 8.3 of Method 324.

* * * * *

(c) For units with add-on SO_2 or NO_x emission controls following the provisions of §75.34(a)(1) or (a)(2), and for units with add-on Hg emission controls, the owner or operator shall keep the following records on-site in the quality assurance/quality control plan required by section 1 of appendix B to this part: * * *

* * * * *

19. Part 75 is amended by adding Subpart I to read as follows

The revisions read as follows:

Subpart I—Hg Mass Emission Provisions

Sec.

75.80 General provisions

75.81 Monitoring of Hg mass emissions and heat input at the unit level

75.82 Monitoring of Hg mass emissions and heat input at common and multiple stacks

75.83 Calculation of Hg mass emissions and heat input rate

75.84 Recordkeeping and reporting

§75.80 General provisions.

(a) *Applicability.* The owner or operator of a unit shall comply with the requirements of this subpart to the extent that compliance is required by an applicable State or Federal Hg mass emission reduction program that incorporates by reference, or otherwise adopts the provisions of, this subpart.

(1) For purposes of this subpart, the term “affected unit” shall mean any coal-fired unit (as defined in §72.2 of this chapter) that is subject to a State or Federal Hg mass emission reduction program requiring compliance with this subpart. The term “non-affected unit” shall mean any unit that is not subject to such a program, the term “permitting authority” shall mean the permitting authority under an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart, and the term “designated representative” shall mean the responsible party under the applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(2) In addition, the provisions of subparts A, C, D, E, F, and G and appendices A through G of this part applicable to Hg concentration, flow rate, Hg emission rate and heat input, as set forth and referenced in this subpart, shall apply to the owner or operator of a unit required to meet the requirements of this subpart by a State or Federal Hg mass emission reduction program. The requirements of this part for SO_2, NO_x, CO_2 and opacity monitoring, recordkeeping and reporting do not apply to units that are subject only to a State or Federal Hg mass emission reduction program that adopts the requirements of this subpart, but are not affected units under the Acid Rain Program or under a State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of this part.

(b) *Compliance dates*. The owner or operator of an affected unit shall meet the compliance deadlines established by an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(c) *Prohibitions.*

(1) No owner or operator of an affected unit or a non-affected unit under §75.82(b)(2)(ii) shall 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 (h) of this section.

(2) No owner or operator of an affected unit or a non-affected unit under ‘75.82(b)(2)(ii) shall operate the unit so as to discharge, or allow to be discharged emissions of Hg to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this part.

(3) No owner or operator of an affected unit or a non-affected unit under §75.82(b)(2)(ii) shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the provisions of this part applicable to monitoring systems under ‘75.81.

(4) No owner or operator of an affected unit or a non-affected unit under §75.82(b)(2)(ii) shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this part, except

under any one of the following circumstances:

(i) During the period that the unit is covered by a retired unit exemption that is in effect under the State or Federal Hg mass emission reduction program that adopts the requirements of this subpart; or

(ii) The owner or operator is monitoring Hg mass emissions from the affected unit with another certified monitoring system approved, in accordance with the provisions of paragraph (d) of this section; or

(iii) The designated representative submits notification of the date of certification testing of a replacement monitoring system in accordance with §75.61.

(d) *Initial certification and recertification procedures.*

(1) The owner or operator of an affected unit that is subject to the Acid Rain Program or to a State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of this part shall comply with the applicable initial certification and recertification procedures in §75.20 and §75.70(d), except that the owner or operator shall meet any additional requirements for Hg-diluent continuous emission monitoring systems, Hg concentration monitoring systems, sorbent trap monitoring systems (as

defined in §72.2 of this chapter), flow monitors, CO_2 monitors, O_2 monitors, or moisture monitors, as set forth under §75.81, under the common stack provisions in §75.82, or under an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(2) The owner or operator of an affected unit that is not subject to the Acid Rain Program or to a State or Federal NO_x mass emission reduction program that adopts the requirements of subpart H of this part shall comply with the initial certification and recertification procedures established by an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(e) *Quality assurance and quality control requirements.* For units that use continuous emission monitoring systems to account for Hg mass emissions, the owner or operator shall meet the applicable quality assurance and quality control requirements in §75.21 and appendix B to this part for the Hg-diluent continuous emission monitoring systems, flow monitoring systems, Hg concentration monitoring systems, moisture monitoring systems, and diluent monitors required under §75.81. Units using sorbent trap monitoring systems shall meet the applicable quality assurance requirements of

Method 324 and section 2.3 of appendix B to this part.

(f) *Missing data procedures.* Except as provided in §75.38(b) and paragraph (g) of this section, the owner or operator shall provide substitute data from monitoring systems required under §75.81 for each affected unit as follows:

(1) For an owner or operator using continuous emissions monitoring systems, substitute for missing data in accordance with the applicable missing data procedures in ‘75.31 through §75.38 whenever the unit combusts fuel and:

(i) A valid, quality-assured hour of Hg emission rate data (in lb/10^{12} Btu) has not been measured and recorded for a unit, either by a certified Hg-diluent continuous emission monitoring system, by an appropriate EPA reference method under §75.22, or by an approved monitoring system under subpart E of this part; or

(ii) A valid, quality-assured hour of flow rate data (in scfh) has not been measured and recorded for a unit either by a certified flow monitor, by an appropriate EPA reference method under §75.22, or by an approved alternative monitoring system under subpart E of this part; or

(iii) A valid, quality-assured hour of heat input rate data (in mmBtu/hr) has not been measured and recorded for a unit, either by certified flow rate and diluent (CO_2 or O_2)

monitors, by appropriate EPA reference methods under §75.22, or by approved alternative monitoring systems under subpart E of this part, where heat input is required either for calculating Hg mass or allocating allowances under the applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart; or

(iv) A valid, quality-assured hour of Hg concentration data (in micrograms per dry standard cubic meter) has not been measured and recorded, either by a certified Hg concentration monitoring system, by an appropriate EPA reference method under §75.22, or by an approved alternative monitoring method under subpart E of this part, where the owner or operator chooses to use a Hg concentration monitoring system with a flow monitor to calculate Hg mass emissions; or

(v) A valid, quality-assured hour of moisture data (in percent H_2O) has not been measured or recorded for an affected unit, either by a certified moisture monitoring system, by an appropriate EPA reference method under §75.22, or an approved alternative monitoring method under subpart E of this part. This requirement does not apply when a default percent moisture value, as provided in §75.11(b) or §75.12(b), is used to account for the hourly moisture content of the stack gas.

(2) For an owner or operator using a sorbent trap monitoring system to quantify Hg mass emissions, substitute for missing data in accordance with the missing data procedures in §75.39.

(g) *Reporting data prior to initial certification.* If, by the applicable compliance date under the State or Federal Hg mass emission reduction program that adopts the requirements of this subpart, the owner or operator of an affected unit has not successfully completed all required certification tests for any monitoring system(s), he or she shall determine, record and report hourly data prior to initial certification using one of the following procedures, for the monitoring system(s) that are uncertified:

(1) If Hg mass emissions are determined from the Hg emission rate and the heat input rate, report the maximum potential Hg emission rate (as defined in section 2.1.7 of appendix A to this part), the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, and, for heat input rate determinations, the maximum potential CO_2 concentration, as defined in section 2.1.3.1 of appendix A to this part, the minimum potential O_2 concentration, as defined in section 2.1.3.2 of appendix A to this part, and the minimum potential percent moisture, as defined in section 2.1.5 of appendix A to this part.

(2) If Hg mass emissions are determined using a Hg concentration monitoring system or a sorbent trap monitoring system and a flow monitoring system, report the maximum potential concentration of Hg as defined in section 2.1.7 of appendix A to this part and the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part;

(3) For any unit, report data from the reference methods under §75.22.

(4) For any unit using the procedures in paragraph (g)(2) of this section that is required to report heat input for purposes of allocating allowances, report the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, the maximum potential CO_2 concentration, as defined in section 2.1.3.1 of appendix A to this part, the minimum potential O_2 concentration, as defined in section 2.1.3.2 of appendix A to this part, and the minimum potential percent moisture, as defined in section 2.1.5 of appendix A to this part.

(h) *Petitions.*

(1) The designated representative of an affected unit that is also subject to the Acid Rain Program may submit a petition to the Administrator requesting an alternative to any requirement of this subpart. Such a petition shall meet the requirements of §75.66 and any additional requirements

established by the applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart. Use of an alternative to any requirement of this subpart is in accordance with this subpart and with such State or Federal Hg mass emission reduction program only to the extent that the petition is approved by the Administrator, in consultation with the permitting authority.

(2) Notwithstanding paragraph (h)(1) of this section, petitions requesting an alternative to a requirement concerning any additional CEMS required solely to meet the common stack provisions of §75.82 shall be submitted to the permitting authority and the Administrator and shall be governed by paragraph (h)(3) of this section. Such a petition shall meet the requirements of §75.66 and any additional requirements established by an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(3) The designated representative of an affected unit that is not subject to the Acid Rain Program may submit a petition to the permitting authority and the Administrator requesting an alternative to any requirement of this subpart. Such a petition shall meet the requirements of §75.66 and any additional requirements established by the

applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart. Use of an alternative to any requirement of this subpart is in accordance with this subpart only to the extent that it is approved by the Administrator and by the permitting authority.

§75.81 Monitoring of Hg mass emissions and heat input at the unit level

The owner or operator of the affected coal-fired unit shall either:

(a) Meet the general operating requirements in §75.10 for the following continuous emission monitors (except as provided in accordance with subpart E of this part):

(1) A Hg-diluent continuous emission monitoring system (consisting of a Hg pollutant concentration monitor, an O_2 or CO_2 diluent gas monitor, and an automated data acquisition and handling system) to measure Hg emission rate in lb/10^{12} Btu; and

(2) A flow rate monitoring system; and

(3) An O_2 or CO_2 diluent gas monitor to measure heat input rate; and

(4) A continuous moisture monitoring system, as described in §75.11(b) or §75.12(b). Alternatively, the owner or operator may use the appropriate fuel-specific

default moisture value provided in §75.11 or §75.12, or a site-specific moisture value approved by petition under §75.66; or

(b) Meet the general operating requirements in §75.10 for the following continuous emission monitors (except as provided in accordance with subpart E of this part):

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

(1) A Hg concentration monitoring system (consisting of a Hg pollutant concentration monitor and a n automated data acquisition and handling system) or, for affected units that qualify, a sorbent trap monitoring system (as defined in §72.2 of this chapter) to measure Hg concentration. The use of sorbent trap monitoring systems is restricted to affected units with estimated average Hg mass emissions of 144 ounces (9 lbs) or less for the same three calendar years that are used to allocate the Hg allowances; and

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

(1) A Hg concentration monitoring system (consisting of a Hg pollutant concentration monitor and a n automated data acquisition and handling system) or, for affected units that qualify, a sorbent trap monitoring system (as defined in §72.2 of this chapter) to measure Hg concentration; and

(2) A flow rate monitoring system; and

(3) A continuous moisture monitoring system, as described in §75.11(b) or §75.12(b). Alternatively, the owner or operator may use the appropriate fuel-specific default moisture value provided in §75.11 or §75.12, or a site-specific moisture value approved by petition under §75.66; and

(4) If heat input is required to be reported under the applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart, the owner or operator also must meet the general operating requirements for a flow monitoring system and an O_2 or CO_2 monitoring system to measure heat input rate.

(c) Notwithstanding the provisions of paragraph (b)(1) of this section, the owner or operator shall quantify mercury mass emissions using either a mercury concentration CEMS or a mercury-diluent CEMS for any affected unit that commences operation more than 6 months after the date of publication of a final rule implementing a State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

§75.82 Monitoring of Hg mass emissions and heat input at common and multiple stacks.

(a) *Unit utilizing common stack with other affected* *unit(s).* When an affected unit utilizes a common stack with one or more affected units, but no non-affected units, the owner or operator shall either:

(1) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) at the common stack, record the combined Hg mass emissions for the units exhausting to the common stack, and, where unit heat input rate determination is required, determine the hourly unit heat input rates by either:

(i) Apportioning the common stack heat input rate to the individual units according to the procedures in §75.16(e)(3); or

(ii) Installing, certifying, operating, and maintaining a flow monitoring system and diluent monitor in the duct to the common stack from each unit; or

(2) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in the duct to the common stack from each unit.

(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 shall either: (1) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in the duct to the common stack from each affected unit; or

(2) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in the common stack; and

(i) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in the common stack and in the duct to the common stack from each non-affected unit. The designated representative shall submit a petition to the permitting authority and the Administrator to allow a method of calculating and reporting the Hg mass emissions from the affected units as the difference between Hg mass emissions measured in the common stack and Hg mass emissions measured in the ducts of the non-affected units, not to be reported as an hourly value less than zero. The permitting authority and the Administrator may approve such a method whenever the designated representative demonstrates, to the satisfaction of the permitting authority and the Administrator, that the method ensures that the Hg mass emissions from the affected units are not underestimated; or

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

(iii) Submit a petition to the permitting authority and the Administrator to allow use of a method for apportioning Hg mass emissions measured in the common stack to each of the units using the common stack and for reporting the Hg mass emissions. The permitting authority and the Administrator may approve such a method whenever the designated representative demonstrates, to the satisfaction of the permitting authority and the Administrator, that the method ensures that the Hg mass emissions from the affected units are not underestimated.

(c) *Unit with a main stack and a bypass stack.* Whenever any portion of the flue gases from an affected unit can be routed through a bypass stack to avoid the Hg monitoring system(s) installed on the main stack, the owner and operator shall either:

(1) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) on both the main stack and the bypass stack and calculate Hg mass emissions for the unit as the sum of the Hg mass emissions measured at the two stacks;

(2) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) at the main stack and measure Hg mass emissions at the bypass stack using the appropriate reference methods in §75.22(b).

Calculate Hg mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems; or

(3) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) only on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under §75.53, since only the main stack is monitored. For each unit operating hour in which the bypass stack is used, report, as applicable, the maximum potential Hg emission rate (as defined in section 2.1.7 of appendix A to this part), and the appropriate substitute data values for flow rate, CO_2 concentration , O_2 concentration , and moisture (as applicable), in accordance with the missing data procedures of §75.31 through §75.37.

(d) *Unit with multiple stack or duct configuration.* When the flue gases from an affected unit discharge to the atmosphere through more than one stack, or when the flue gases from an affected unit utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor in the ducts rather than in the stack, the owner or operator shall either:

(1) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in each of the multiple stacks and determine Hg mass emissions from the affected unit as the sum of the Hg mass emissions recorded for each stack. If another unit also exhausts flue gases into one of the monitored stacks, the owner or operator shall comply with the applicable requirements of paragraphs (a) and (b) of this section, in order to properly determine the Hg mass emissions from the units using that stack; or

(2) Install, certify, operate, and maintain the monitoring systems described in §75.81(a) or §75.81(b) in each of the ducts that feed into the stack, and determine Hg mass emissions from the affected unit using the sum of the Hg mass emissions measured at each duct, except that where another unit also exhausts flue gases to one or more of the stacks, the owner or operator shall also comply with the applicable requirements of paragraphs (a) and (b) of this section to determine and record Hg mass emissions from the units using that stack.

§75.83 Calculation of Hg mass emissions and heat input rate.

The owner or operator shall calculate Hg mass emissions and heat input rate in accordance with the procedures in sections 9.1 through 9.3 of appendix F to this part.

§75.84 Recordkeeping and reporting.

(a) *General recordkeeping provisions.* The owner or operator of any affected unit shall maintain for each affected unit and each non-affected unit under §75.82(b)(2)(ii) 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 three (3) years from the date of each record. Except for the certification data required in §75.57(a)(4) and the initial submission of the monitoring plan required in §75.57(a)(5), the data shall be collected beginning with the earlier of the date of provisional certification or the compliance deadline in §75.80(b). The certification data required in §75.57(a)(4) shall be collected beginning with the date of the first certification test performed. The file shall contain the following information:

(1) The information required in §§75.57(a)(2), (a)(4), (a)(5), (a)(6), (b), (c)(2), (g) (if applicable), (h), and (i) or (j) (as applicable). For the information in §75.57(a)(2), replace the phrase “the deadline in §75.4(a), (b) or (c)” with the phrase “the applicable certification deadline under the State or Federal Hg mass emission

reduction program”;

(2) The information required in §75.58(b)(3), for units with flue gas desulfurization systems or add-on Hg emission controls;

(3) For affected units using Hg CEMS or sorbent trap monitoring systems, for each hour when the unit is operating, record the Hg mass emissions, calculated in accordance with section 9 of appendix F to this part.

(4) Heat input and Hg methodologies for the hour; and

(5) Formulas from monitoring plan for total Hg mass emissions and heat input rate (if applicable);

(b) *Certification, quality assurance and quality control record provisions.* The owner or operator of any affected unit shall record the applicable information in §75.59 for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii).

(c) *Monitoring plan recordkeeping provisions.*

(1) *General provisions.* The owner or operator of an affected unit shall prepare and maintain a monitoring plan for each affected unit or group of units monitored at a common stack and each non-affected unit under

§75.82(b)(2)(ii). The monitoring plan shall contain sufficient information on the continuous monitoring systems and the use of data derived from these systems to demonstrate that all the unit’s Hg emissions are monitored and reported.

(2) *Updates.* Whenever the owner or operator makes a replacement, modification, or change in a certified continuous monitoring system or alternative monitoring system under subpart E of this part, including a change in the automated data acquisition and handling system or in the flue gas handling system, that affects information reported in the monitoring plan (e.g., a change to a serial number for a component of a monitoring system), then the owner or operator shall update the monitoring plan.

(3) *Contents of the monitoring plan.* Each monitoring plan shall contain the information in §75.53(e)(1) in electronic format and the information in §75.53(e)(2) in hardcopy format.

(d) *General reporting provisions.*

(1) The designated representative for an affected unit shall comply with all reporting requirements in this section and with any additional requirements set forth in an applicable State or Federal Hg mass emission reduction program that adopts the requirements of this subpart.

(2) The designated representative for an affected unit shall submit the following for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii):

(i) Initial certification and recertification applications in accordance with §75.80(d);

(ii) Monitoring plans in accordance with paragraph (e) of this section; and

(iii) Quarterly reports in accordance with paragraph (f) of this section.

(3) *Other petitions and communications.* The designated representative for an affected unit shall submit petitions, correspondence, application forms, and petition-related test results in accordance with the provisions in §75.80(h).

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

(4) *Quality assurance RATA reports.* If requested by the permitting authority, the designated representative of an affected unit shall 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 §75.82(b)(2)(ii) by the later of 45 days after completing a quality assurance RATA according to section 2.3 of appendix B to this part or 15 days of receiving the request. The

designated representative shall report the hardcopy information required by §75.59(a)(9) to the permitting authority.

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

(4) *Quality assurance RATA (or RAA) reports.* If requested by the permitting authority, the designated representative of an affected unit shall submit the quality assurance RATA or RAA report for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii) by the later of 45 days after completing a quality assurance RATA or RAA according to section 2.3 of appendix B to this part or 15 days of receiving the request. The designated representative shall report the hardcopy information required by §75.59(a)(9) to the permitting authority.

(5) *Notifications.* The designated representative for an affected unit shall submit written notice to the permitting authority according to the provisions in ‘75.61 for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii).

(e) *Monitoring plan reporting.*

(1) *Electronic submission.* The designated

representative for an affected unit shall submit to the Administrator a complete, electronic, up-to-date monitoring plan file for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii), as follows: no later than 45 days prior to the commencement of initial certification testing; at the time of a certification or recertification application submission; and whenever an update of the electronic monitoring plan is required, either under §75.53 or elsewhere in this part.

(2) *Hardcopy submission.* The designated representative of an affected unit shall submit all of the hardcopy information required under §75.53, for each affected unit or group of units monitored at a common stack and each non-affected unit under §75.82(b)(2)(ii), to the permitting authority prior to initial certification. Thereafter, the designated representative shall submit hardcopy information only if that portion of the monitoring plan is revised. The designated representative shall submit the required hardcopy information as follows: no later than 45 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 §75.53(b). Electronic submittal of all monitoring plan information, including hardcopy portions, is permissible provided that a paper copy of the hardcopy portions can be furnished upon request.

(f) *Quarterly reports*.

(1) *Electronic submission.* Electronic quarterly reports shall be submitted , beginning with the calendar quarter containing the compliance date in §75.80(b), unless otherwise specified in the final rule implementing a State or Federal Hg mass emissions reduction program that adopts the requirements of this subpart. The designated representative for an affected unit shall report the data and information in this paragraph (f)(1) and the applicable compliance certification information in paragraph (f)(2) of this section to the Administrator quarterly. Each electronic report must be submitted to the Administrator within 30 days following the end of each calendar quarter. Each electronic report shall include the date of report generation and the following information for each affected unit or group of units monitored at a common stack:

(i) The facility information in §75.64(a)(1); and

(ii) The information and hourly data required in paragraph (a) of this section, except for:

(A) Descriptions of adjustments, corrective action, and maintenance;

(B) Information which is incompatible with electronic reporting (e.g., field data sheets, lab analyses, quality control plan);

(C) For units with flue gas desulfurization systems or with add-on Hg emission controls, the information in §75.58(b)(3);

(D) Information required by § 75.57(h) concerning the causes of any missing data periods and the actions taken to cure such causes;

(E) Hardcopy monitoring plan information required by §75.53 and hardcopy test data and results required by §75.59;

(F) Records of flow polynomial equations and numerical values required by §75.59(a)(5)(vi);

(G) Stratification test results required as part of the RATA supplementary records under §75.59(a)(7);

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

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

(I) Supplementary RATA information required under §75.59(a)(7)(i) through §75.59(a)(14), as applicable, except that: the data under §75.59(a)(7)(ii)(A) through (T) and the data under §75.59(a)(7)(iii)(A) through (M) shall, as applicable, be reported for flow RATAs in which angular compensation (measurement of pitch and/or yaw angles) is used and for flow RATAs in which a site-specific wall effects adjustment factor is determined by direct measurement; and the data under §75.59(a)(7)(ii)(T) shall be reported for all flow RATAs in which a default wall effects adjustment factor is applied; and

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

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

(I) Supplementary RATA (or RAA) information required under §75.59(a)(7)(i) through §75.59(a)(14), as applicable, except that: the data under §75.59(a)(7)(ii)(A) through (T) and the data under §75.59(a)(7)(iii)(A) through (M) shall, as applicable, be reported for flow RATAs in which angular compensation (measurement of pitch and/or yaw angles) is used and for flow RATAs in which a site-specific wall effects adjustment factor is determined by direct measurement; and the data under §75.59(a)(7)(ii)(T) shall be reported for all flow RATAs in which a default wall effects adjustment factor is applied; and

(iii) If a Hg-diluent monitoring system is used to quantify Hg mass emissions, the average Hg emission rate during the quarter (lb/10^{12} Btu, rounded to three decimal places) and the average Hg emission rate for the year-to-date; and

(iv) Ounces of Hg emitted during quarter and cumulative ounces of Hg emitted in the year-to-date (rounded to the nearest tenth); and

(v) Unit or stack operating hours for quarter, cumulative unit or stack operating hours for year-to-date; and

(vi) Reporting period heat input (if applicable) and cumulative, year-to-date heat input..

(2) *Compliance certification*.

(i) The designated representative shall certify that the monitoring plan information in each quarterly electronic report (i.e., component and system identification codes, formulas, etc.) represent current operating conditions for the affected unit(s)

(ii) The designated representative shall submit and sign a compliance certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit’s emissions are correctly and fully monitored. The certification shall state that:

(*1*) The monitoring data submitted were recorded in accordance with the applicable requirements of this part, including the quality assurance procedures and specifications; and

(*2*) With regard to a unit with an FGD system or with add-on Hg emission controls, that for all hours where data are substituted in accordance with §75.38(b), the add-on emission controls were operating within the range of parameters listed in the quality-assurance plan for the unit, and that the substitute values do not systematically underestimate Hg emissions.

(3) *Additional reporting requirements.* The designated representative shall also comply with all of the quarterly reporting requirements in §§75.64(d), (f), and (g).

20. Appendix A to 40 CFR part 75 is amended by revising the

title of section 1.1 and revising the second sentence of section 1.1 introductory text to read as follows:

Appendix A to Part 75--Specifications and Test Procedures

1. *Installation and Measurement Location*

1.1 *Gas and Hg Monitors*

* * * Select a representative measurement point or path for the monitor probe(s) (or for the path from the transmitter to the receiver) such that the SO_2, CO_2, O_2, or NO_x concentration monitoring system or NO_x-diluent continuous emission monitoring system (NO_x pollutant concentration monitor and diluent gas monitor), Hg concentration monitoring system, Hg-diluent monitoring system, or sorbent trap monitoring system will pass the relative accuracy test (see section 6 of this appendix).

* * * * *

Appendix A to Part 75 [Amended]

21. Appendix A to part 75 is amended by adding new sections 2.1.7 and 2.2.3 to read as follows:

2. *Equipment Specifications*

* * * * *

2.1.7 *Hg Monitors*

Determine the appropriate span and range value(s) for each Hg pollutant concentration monitor, so that all expected Hg concentrations can be determined accurately.

2.1.7.1 Maximum Potential Concentration

(a) The maximum potential concentration depends upon the type of coal combusted in the unit. For the initial MPC determination, there are three options:

(1) Use one of the following default values: 9 µg/dscm for bituminous coal; 10 µg/dscm for sub-bituminous coal; 16 µg/dscm for lignite, and 1 µg/dscm for waste coal, i.e., anthracite culm or bituminous gob (if different coals are blended, use the highest MPC for any fuel in the blend); or

(2) You may base the MPC on the results of site-specific emission testing using the Ontario Hydro method, if the unit does not have add-on Hg emission controls or a flue gas desulfurization system, or if you test upstream of these control devices. A minimum of 3 test runs, two hours (or more) in duration, are required, at the normal operating load. Use the highest total Hg concentration obtained in any of the tests as the MPC; or

(3) You may base the MPC on 720 or more hours of historical CEMS data, if the unit does not have add-on Hg emission controls or a flue gas desulfurization system (or if the CEMS is located upstream of these control devices) and if the Hg CEMS that has been tested for relative accuracy against the Ontario Hydro method and has met a relative accuracy specification of 20.0% or less.

(b) If a Hg-diluent monitoring system is used to quantify Hg mass emissions, calculate (for purposes of missing data substitution) the maximum potential Hg emission rate (MER), in $lb/10^{12}$ Btu. To determine the MER, use the appropriate emission rate equation from section 9 of appendix F to this part, substituting into the equation the MPC value, the minimum expected CO_2 concentration or maximum expected O_2 concentration during normal operation (excluding unit startup, shutdown and process upsets), the expected stack gas moisture content (if applicable), and the appropriate F-factor.

(c) For the purposes of missing data substitution, the fuel-specific or site-specific MPC values defined in paragraph (a) of this section apply to units using sorbent trap monitoring systems.

2.1.7.2 Maximum Expected Concentration

For units with FGD systems that significantly reduce Hg emissions (including fluidized bed units that use limestone injection) and for units equipped with add-on Hg emission controls (e.g., carbon injection), determine the maximum expected Hg concentration (MEC) during normal, stable operation of the unit and emission controls. To calculate the MEC, substitute the MPC value from section 2.1.7.1 of this appendix into Equation A-2 in section 2.1.1.2 of this appendix. For units with add-on Hg emission controls, base the percent removal efficiency on design engineering calculations. For units with FGD systems, use the best available estimate of the Hg removal efficiency of the FGD system.

2.1.7.3 Span and Range Value(s)

(a) For each Hg monitor, determine a high span value, by rounding the MPC value from section 2.1.7.1 of this appendix upward to the next highest multiple of 10 μg/dscm.

(b) For an affected unit equipped with an FGD system or a unit with add-on Hg emission controls, if the MEC value from section 2.1.7.2 of this appendix is less than 20 percent of the high span value from paragraph (a) of this section, and if the high span value is 20 μg/dscm or greater, define a second, low span value of 10 μg/dscm.

(c) If only a high span value is required, set the full-scale range of the Hg analyzer to be greater than or equal to the span value.

(d) If two span values are required, you may either:

(1) Use two separate (high and low) measurement scales, setting the range of each scale to be greater than or equal to the high or low span value, as appropriate; or

(2) Quality-assure two segments of a single measurement scale.

2.1.7.4 Adjustment of Span and Range

For each affected unit or common stack, the owner or operator shall make a periodic evaluation of the MPC, MEC, span, and range values for each Hg monitor (at a minimum, an annual evaluation is required) and shall 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) shall be excluded from consideration. The owner or operator shall 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 gases currently being used for daily calibration error tests and linearity checks are unsuitable for use with the new span value.

(a) The guidelines of section 2.1 of this appendix do not apply to Hg monitoring systems.

(b) Whenever a full-scale range exceedance occurs during a quarter and is not caused by a monitor out-of-control period, proceed as follows:

(1) For monitors with a single measurement scale, report 200 percent of the full-scale range as the hourly Hg concentration until the readings come back on-scale and if appropriate, make adjustments to the MPC, span, and range to prevent future full-scale exceedances; or

(2) For units with two separate measurement scales, if the low range is exceeded, no further action is required, provided that the high range is available and is not out-of-control or out-of-service for any reason. However, if the high range is not able to provide quality assured data at the time of the low range exceedance or at any time during the continuation of the exceedance, report the MPC until the readings return to the low range or until the high range is able to provide quality assured data (unless the reason that the high-scale range is not able to provide quality assured data is because the high-scale range has been exceeded; if the high-scale range is exceeded follow the procedures in paragraph (b)(1) of this section).

(c) Whenever changes are made to the MPC, MEC, full-scale range, or span value of the Hg monitor, record and report (as applicable) the new full-scale range setting, the new MPC or MEC and calculations of the adjusted span value in an updated monitoring plan. The monitoring plan update shall be made in the quarter in which the changes become effective. In addition, record and report the adjusted span as part of the records for the daily calibration error test and linearity check specified by appendix B to this part. Whenever the span value is adjusted, use calibration gas concentrations that meet the requirements of section 5.1 of this appendix, based on the adjusted span value. When a span adjustment is so significant that the calibration gases currently being used for daily calibration error tests and linearity checks are unsuitable for use with the new span value, then a diagnostic linearity test using the new calibration gases must be performed and passed. Use the data validation procedures in §75.20(b)(3), beginning with the hour in which the span is changed.

2.2 *Design for Quality Control Testing*

*   *   *   *   *

2.2.3 Mercury Monitors.

Design and equip each mercury monitor to permit the introduction of known concentrations of elemental Hg and $HgCl_2$ separately, at a point immediately preceding the sample extraction filtration system, such that the entire measurement system can be checked.

Appendix A to Part 75 [Amended]

22. Appendix A to part 75 is amended by:

a. Adding a new paragraph (c) to section 3.1;

b. Revising section 3.2; and

c. Adding new sections 3.3.8 and 3.4.3.

The revisions and additions read as follows:

3. *Performance Specifications*

3.1 *Calibration Error*

*   *   *   *   *

(c) The calibration error of a Hg concentration monitor shall not deviate from the reference value of either the zero or upscale calibration gas by more than 5.0 percent of the span value, as calculated using Equation A-5 of this appendix. Alternatively, if the span value is 10 μg/dscm, the calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value, $|R-A|$ in Equation A-5 of this appendix, is $\leq$ 1.0 μg/dscm.

3.2 *Linearity Check*

(a) For SO_2 and NO_x pollutant concentration monitors, the error in linearity for each calibration gas concentration (low-, mid-, and high-levels) shall not exceed or deviate from the reference value by more than 5.0 percent (as calculated using equation A-4 of this appendix). Linearity check results are also acceptable if 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 appendix, is less than or equal to 5 ppm.

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

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

(2) 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 appendix, shall be less than or equal to 0.5 percent CO_2 or O_2, whichever is less restrictive.

(c) For Hg monitors:

(1) The error in linearity for each calibration gas concentration (low-, mid-, and high-levels) shall not exceed or deviate from the reference value by more than 10.0 percent as calculated using equation A-4 of this appendix;

or

(2) 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 appendix, shall be less than or equal to 1.0 µg/dscm, whichever is less restrictive.

(3) For the converter check required under §75.20(c)(1)(vi), the measurement error shall not exceed 5.0 percent of the span value at any of the three gas levels.

3.3 Relative Accuracy

* * * * *

3.3.8 Relative Accuracy for Hg Monitoring Systems

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

(a) The relative accuracy of a Hg concentration monitoring system or a sorbent trap monitoring system shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg concentration during the relative accuracy test audit is less than 5.0 µg/dscm, the test results are acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 µg/dscm, in cases where the relative accuracy specification of 20.0 percent is not achieved.

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

(a) The relative accuracy of a Hg concentration monitoring system or a sorbent trap monitoring system shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg concentration during the relative accuracy test audit is less than 5.0 μg/dscm, the test results are acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 μg/dscm, in cases where the relative accuracy specification of 20.0 percent is not achieved. For sorbent trap monitoring systems, these specifications apply both to RATAs and to RAAs.

(b) The relative accuracy of a Hg-diluent continuous emission monitoring systems shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg emission rate during the relative accuracy test audit is less than 5.5 lb/10^{12} Btu, the test results are acceptable if the difference between the mean value of the continuous emission monitoring system measurements and the reference method mean value does not exceed $\pm$ 1.1 lb/10^{12} Btu, in cases where the relative accuracy specification of 20.0 percent is not achieved.

3.4 *Bias*

* * * * *

3.4.3 Hg Monitoring Systems

Hg concentration monitoring systems, Hg-diluent monitoring systems, and sorbent trap monitoring systems shall not be biased low as determined by the test procedure in section 7.6 of this appendix.

* * * * *

Appendix A to Part 75 [Amended]

23. Appendix A to part 75 is amended by revising the second sentence in the first paragraph of the introductory text of section 4 and revising the second paragraph of the introductory text of section 4 to read as follows:

4. *Data Acquisition and Handling Systems*

* * * These systems also shall have the capability of interpreting and converting the individual output signals from an SO_2 pollutant concentration monitor, a flow monitor, a CO_2 monitor, an O_2 monitor, a NO_x pollutant concentration monitor, a NO_x-diluent continuous emission monitoring system, a moisture monitoring system, a Hg concentration monitoring system, a Hg-diluent 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, lb/10^{12} Btu, tons/hr).

Data acquisition and handling systems shall also compute and record monitor calibration error; any bias adjustments to SO_2, NO_x, and Hg pollutant concentration data, flow rate data, Hg emission rate data, or NO_x emission rate data; and all missing data procedure statistics specified in subpart D of this part.

* * * * *

Appendix A to Part 75 [Amended]

24. Appendix A to part 75 is amended by adding new section 5.1.9 to read as follows:

5. Calibration Gas

* * * * *

5.1.9 Mercury Standards. For calibration error tests and linearity checks of Hg pollutant concentration monitors, elemental mercury standards shall be used. For the converter checks required under §75.20(c)(1)(vi) and section 2.6 of appendix B to this part, $HgCl_2$ standards shall be used.

* * * * *

Appendix A to Part 75 [Amended]

25. Appendix A to part 75 is amended by:

a. Revising the first sentence of the introductory text to section 6.2 ;

b. Adding new paragraph (g) to section 6.2;

c. Revising the second sentence of section 6.3.1;

d. Replacing the words "SO_2 -diluent" with the words "Hg-diluent" in section 6.4, introductory text;

e. Revising the first sentence of section 6.5;

f. Revising the first sentence of section 6.5(a) and adding a new third sentence;

g. Revising the second sentence of section 6.5(c);

h. Revising section 6.5(g);

i. Revising section 6.5.1(a);

j. Revising section 6.5.1(b);

k. Adding new paragraph (c) to section 6.5.6;

l. Revising the first sentence and adding two sentences at the end of section 6.5.7(a); and

m. Revising sections 6.5.7(b) and 6.5.10.

The revisions read as follows:

6. Certification Tests and Procedures

* * * * *

6.2 *Linearity Check (General Procedures)*

Check the linearity of each SO_2, NO_x, CO_2, Hg, and O_2 monitor while the unit, or group of units for a common stack, is combusting fuel at conditions of typical stack temperature and pressure; it is not necessary for the unit to be generating electricity during this test. * * *

*   *   *   *   *

(g) For Hg monitors, follow the guidelines in section 2.2.3 of this appendix in addition to the applicable procedures in this section 6.2 when conducting linearity checks using elemental mercury calibration standards and when performing the converter checks required under §75.20(c)(1)(vi) using $HgCl_2$ calibration standards.

6.3 7-Day Calibration Error Test

6.3.1 Gas Monitor 7-day Calibration Error Test

*   *   * In all other cases, measure the calibration error of each SO_2 monitor, each NO_x monitor, each Hg 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. *   *   *

*   *   *   *   *

6.4 Cycle Time Test

*   *   *   For the NO_x-diluent continuous emission monitoring system test and Hg-diluent continuous emission monitoring system test, record and report the longer cycle time of the two component analyzers as the system cycle time.* * *

*   *   *   *   *

6.5 Relative Accuracy and Bias Tests (General Procedures)

Perform the required relative accuracy test audits (RATAs) as follows for each CO_2 pollutant concentration monitor (including O_2 monitors used to determine CO_2 pollutant concentration), each SO_2 pollutant concentration monitor, each NO_x concentration monitoring system used to determine NO_x mass emissions, each flow monitor, each NO_x-diluent continuous emission monitoring system, each O_2 or CO_2 diluent monitor used to calculate heat input, each Hg concentration monitoring system, each Hg-diluent monitoring system, each sorbent trap monitoring system, and each moisture monitoring system. * * *

(a) Except as otherwise provided in this paragraph or in §75.21(a)(5), perform each RATA while the unit (or units, if more than one unit exhausts into the flue) is combusting the fuel that is a normal primary or backup fuel for that unit (for some units, more than one type of fuel may be considered normal, e.g., a unit that combusts gas or oil on a seasonal basis). For units that co-fire fuels as the predominant mode of operation, perform the RATAs while co-firing. For Hg monitoring systems, perform the RATAs while the unit is combusting coal. When relative accuracy test audits are performed on continuous emission monitoring systems installed on bypass stacks/ducts, use the fuel normally combusted by the unit (or units, if more than one unit exhausts into the flue) when emissions exhaust through the bypass stack/ducts.

* * * * *

(c) * * * For units with add-on SO_2 or NO_x controls or add-on Hg controls that operate continuously rather than seasonally, or for units that need a dual range to record high concentration “spikes” during startup conditions, the low range is considered normal. * * *

* * * * *

(g) For each SO_2 or CO_2 pollutant concentration monitor, each flow monitor, each CO_2 or O_2 diluent monitor used to determine heat input, each NO_x concentration monitoring system used to determine NO_x mass emissions, as defined in §75.71(a)(2), each moisture monitoring system, each NO_x-diluent continuous emission monitoring system, each Hg concentration monitoring system, each Hg-diluent monitoring system, and each sorbent trap monitoring system, calculate the relative accuracy, in accordance with section 7.3 or 7.4 of this appendix, as applicable. In addition (except for CO_2, O_2, or moisture monitors), test for bias and determine the appropriate bias adjustment factor, in accordance with sections 7.6.4 and 7.6.5 of this appendix, using the data from the relative accuracy test audits.

6.5.1 Gas and Hg Monitoring System RATAs (Special

Considerations)

(a) Perform the required relative accuracy test audits for each SO_2 or CO_2 pollutant concentration monitor, each CO_2 or O_2 diluent monitor used to determine heat input, each NO_x-diluent continuous emission monitoring system, each NO_x concentration monitoring system used to determine NO_x mass emissions, as defined in §75.71(a)(2), each Hg concentration monitoring system, each Hg-diluent monitoring system, and each sorbent trap monitoring system at the normal load level or normal operating level for the unit (or combined units, if common stack), as defined in section 6.5.2.1 of this appendix. If two load levels or operating levels have been designated as normal, the RATAs may be done at either load level.

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

*   *   *   *   *

6.5.6 Reference Method Traverse Point Selection

*   *   *   *   *

(c) For Hg monitoring systems, use the same traverse points that are used for the gas monitor RATAs.

*   *   *   *   *

6.5.7 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 monitor, CO_2 or O_2 monitor, flow monitor, and SO_2, Hg, or NO_x continuous emission monitoring system measurements. *   *   * For Hg monitoring system RATAs using the Ontario Hydro method, the minimum acceptable time per run is 2 hours. For the RATA of a sorbent trap monitoring system, install a new pair of sorbent traps prior to each test run.

(b) To properly correlate individual SO_2, Hg, or NO_x continuous emission monitoring system data (in lb/mmBtu) and volumetric flow rate 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).

*   *   *   *   *

6.5.10 Reference Methods

The following methods from appendix A to part 60 of this chapter or their approved alternatives are the reference methods for performing relative accuracy test audits: Method 1 or 1A for siting; Method 2 or its allowable alternatives in appendix A to part 60 of this chapter (except for Methods 2B and 2E) for stack gas velocity and volumetric flow rate; Methods 3, 3A, or 3B for O_2 or CO_2; Method 4 for moisture; Methods 6, 6A, or 6C for SO_2; Methods 7, 7A, 7C, 7D, or 7E for NO_x, excluding the exception in section 5.1.2 of Method 7E; and the Ontario Hydro method for Hg (see §75.22). When using Method 7E for measuring NO_x concentration, total NO_x, both NO and NO_2, must be measured. Notwithstanding these requirements, Method 20 may be used as the reference method for relative accuracy test audits of NO_x monitoring systems installed on combustion turbines.

* * * * *

Appendix A to Part 75 [Amended]

26. Appendix A to part 75 is amended by:

a. Revising the title of section 7.3 and the first sentence of the introductory text of section 7.3;

b. Revising the introductory text of section 7.6;

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

c. Revising the first sentence in paragraph (b) of section 7.6.5 and adding a sentence at the end of paragraph (b); and

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

c. Revising the first sentence in paragraph (b) of section 7.6.5 and adding two new sentences at the end of paragraph (b); and

d. Revising paragraph (f) in section 7.6.5.

The revisions and additions read as follows:

7. *Calculations*

* * * * *

7.3 Relative Accuracy for SO_2 and CO_2 Pollutant Concentration Monitors, O_2 Monitors, NO_x Concentration Monitoring Systems, Hg Monitoring Systems, and Flow Monitors

Analyze the relative accuracy test audit data from the reference method tests for SO_2 and CO_2 pollutant concentration monitors, CO_2 or O_2 monitors used only for heat input rate determination, NO_x concentration monitoring systems used to determine NO_x mass emissions under subpart H of this part, Hg monitoring systems used to determine Hg mass emissions under subpart I of this part, and flow monitors using the following procedures. * * *

* * * * *

7.6 *Bias Test and Adjustment Factor*

Test the following relative accuracy test audit data sets for bias: SO_2 pollutant concentration monitors; flow monitors; NO_x concentration monitoring systems used to determine NO_x mass emissions, as defined in §75.71(a)(2); NO_x-diluent continuous emission monitoring systems, Hg concentration monitoring systems, Hg-diluent monitoring systems, and sorbent trap monitoring systems, using the procedures outlined in sections 7.6.1 through 7.6.5 of this appendix. For multiple-load flow RATAs, perform a bias test at each load level designated as normal under section 6.5.2.1 of this appendix.

* * * * *

7.6.5 Bias Adjustment

* * * * *

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

(b) For single-load RATAs of SO_2 pollutant concentration monitors, NO_x concentration monitoring systems, NO_x-diluent monitoring systems, Hg concentration monitoring systems, Hg-diluent monitoring systems, and sorbent trap monitoring systems, and for the single-load flow RATAs required or allowed under section 6.5.2 of this appendix and sections 2.3.1.3(b) and 2.3.1.3(c) of appendix B to this part, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A-12. * * * Similarly, for Hg concentration and sorbent trap monitoring systems, where the average Hg concentration during the RATA is < 5.0 μg/dscm, or, for Hg-diluent monitoring systems, where the average Hg emission rate during the RATA is <5.5 lb/10^{12} Btu, if the monitoring system meets the normal or the alternative relative accuracy specification in section 3.3.8 of this appendix but fails the bias test, the owner or operator may either use the bias adjustment factor (BAF) calculated from Equation A-12 or may use a default BAF of 1.250 for reporting purposes under this part.

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

(b) For single-load RATAs of SO_2 pollutant concentration monitors, NO_x concentration monitoring systems, NO_x-diluent monitoring systems, Hg concentration monitoring systems, Hg-diluent monitoring systems, and sorbent trap monitoring systems, and for the single-load flow RATAs required or allowed under section 6.5.2 of this appendix and sections 2.3.1.3(b) and 2.3.1.3(c) of appendix B to this part, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A-12. * * * Similarly, for Hg concentration and sorbent trap monitoring systems, where the average Hg concentration during the RATA is < 5.0 μg/dscm, or, for Hg-diluent monitoring systems, where the average Hg emission rate during the RATA is <5.5 lb/10^{12} Btu, if the monitoring system meets the normal or the alternative relative accuracy specification in section 3.3.8 of this appendix but fails the bias test, the owner or operator may either use the bias adjustment factor (BAF) calculated from Equation A-12 or may use a default BAF of 1.250 for reporting purposes under this part. The provisions of this paragraph (b) also apply to relative accuracy audits (RAAs) of sorbent trap monitoring systems.

* * * * *

(f) Use the bias-adjusted values in computing substitution values in the missing data procedure, as specified in subpart D of this part, and in reporting the concentration of SO_2 or Hg, the flow rate, the average NO_x emission rate, the unit heat input, and the calculated mass emissions of SO_2 and CO_2 during the quarter and calendar year, as specified in subpart G of this part. In addition, when using a NO_x concentration monitoring system and a flow monitor to calculate NO_x mass emissions under subpart H of this part, or when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions under subpart I of this part, use bias-adjusted values for NO_x (or Hg) concentration and flow rate in the mass emission calculations and use bias-adjusted NO_x (or Hg) concentrations to compute the appropriate substitution values for NO_x (or Hg) concentration in the missing data routines under subpart D of this part.

*   *   *   *   *

27. Appendix B to part 75 is amended by adding section 1.5 to read as follows:

Appendix B to Part 75--Quality Assurance and Quality Control Procedures

*   *   *   *   *

1.5 *Requirements for Sorbent Trap Monitoring Systems*

1.5.1 Sorbent Trap Identification and Tracking.

Include procedures for inscribing or otherwise permanently marking a unique identification number on each sorbent trap, for tracking purposes. Keep records of the ID of the monitoring system in which each sorbent trap is used, and the dates and hours of each Hg collection period.

1.5.2 Monitoring System Integrity and Data Quality

Explain the procedures used to perform the leak checks when a sorbent trap is placed in service and removed from service. These procedures must be consistent with Method 324 , Determination of Vapor-Phase Flue Gas Mercury

Emissions from Stationary Sources Using Dry Sorbent Trap Sampling. Also explain the other QA procedures used to ensure system integrity and data quality, including, but not limited to, dry gas meter calibrations, verification of moisture removal, and ensuring air-tight pump operation. In addition, the QA plan must include the data acceptance and quality control criteria in section 9.0 of Method 324.

1.5.3 Hg Analysis.

Explain the chain of custody employed in transporting and analyzing the sorbent traps. Keep records of all Hg analyses. The analyses shall be performed in accordance with Method 324.

1.5.4 Laboratory Certification

The QA Plan shall include documentation that the laboratory performing the Method 324 analyses on the carbon sorbent traps is certified by the International Organization for Standardization (ISO) to have a proficiency that meets the requirements of ISO 9000.

1.5.5 Data Collection Period

State, and provide the rationale for, the minimum acceptable data collection time for each sorbent trap. Include in the discussion such factors as the Hg concentration in the stack gas, the size and capacity of the sorbent traps, and the minimum mass of Hg required for the

Method 324 analysis.

1.5.6 Relative Accuracy Test Audit Procedures

Keep records of the procedures and details peculiar to the sorbent trap monitoring systems that are to be followed for relative accuracy test audits, such as sampling and analysis methods.

Appendix B to Part 75 [Amended]

28. Appendix B to part 75 is amended by:

a. Revising the first sentence in section 2.1.1 introductory text;

b. Revising paragraph (a) of section 2.1.4;

c. Revising the first sentence of section 2.2.1;

d. Revising the first sentence in paragraph (a) of section 2.3.1.1 and adding a new second sentence to paragraph (a);

e. Revising paragraph (a) of section 2.3.1.3;

f. Revising paragraph (i) of section 2.3.2;

g. Revising section 2.3.4;

h. Revising the first sentence in paragraph (b) of section 2.4;

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

i. Adding new section 2.6;

[For Alternative # 2 in Section II.B.3 of Appendix A to

the Preamble]:

i. Adding new sections 2.6 and 2.7;

j. Revising Figure 1;

k. Revising the first footnote beneath Figure 1;

l. Revising Figure 2;

m. Redesignating footnotes “1", “2" and “3" beneath Figure 2, as “w”, “x” and “y”, respectively;

n. Revising newly designated footnote x; and

o. Adding a new footnote z beneath Figure 2.

The revisions and additions read as follows:

2. *Frequency of Testing*

* * * * *

2.1.1 Calibration Error Test

Except as provided in section 2.1.1.2 of this appendix, perform the daily calibration error test of each gas and Hg monitoring system (including moisture monitoring systems consisting of wet- and dry-basis O_2 analyzers) according to the procedures in section 6.3.1 of appendix A to this part, and perform the daily calibration error test of each flow monitoring system according to the procedure in section 6.3.2 of appendix A to this part. * * *

* * * * *

2.1.4 Data Validation

(a) An out-of-control period occurs when the calibration error of an SO_2 or NO_x pollutant concentration monitor exceeds 5.0 percent of the span value, 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 O_2 or CO_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 appendix A to this part. Notwithstanding, a differential pressure-type flow monitor for which the calibration error exceeds 6.0 percent of the span value shall not be considered out-of-control if $|R- A|$, the absolute value of the difference between the monitor response and the reference value in Equation A-6 of appendix A to this part, is $\leq$ 0.02 inches of water. In addition, an SO_2 or NO_x monitor for which the calibration error exceeds 5.0 percent of the span value shall not be considered out-of-control if $|R- A|$ in Equation A-6 does not exceed 5.0 ppm (for span values $\leq$ 50 ppm), or if $|R- A|$ does not exceed 10.0 ppm (for span values > 50 ppm, but $\leq$ 200 ppm). For a Hg monitor, an out-of-control period occurs when the calibration error exceeds 7.5% of the span value. Notwithstanding, the Hg monitor shall not be considered out-of-control if $|R - A|$ in Equation A-6 does not exceed 1.5 μg/dscm. The out-of-control period begins upon failure of the calibration error test and ends upon completion of a successful calibration error test. Note, that if a failed calibration, corrective action, and successful calibration error test occur within the same hour, emission data for that hour recorded by the monitor after the successful calibration error test may be used for reporting purposes, provided that two or more valid readings are obtained as required by §75.10. A NO_x-diluent continuous emission monitoring system is considered out-of-control if the calibration error of either component monitor exceeds twice the applicable performance specification in appendix A to this part. A Hg-diluent continuous emission monitoring system is considered out-of-control if the calibration error of either component monitor exceeds the appplicable specification in this paragraph. Emission data shall not be reported from an out-of-control monitor.

*   *   *   *   *

2.2.1 Linearity Check

Unless a particular monitor (or monitoring range) is exempted under this paragraph or under section 6.2 of appendix A to this part, perform a linearity check, in accordance with the procedures in section 6.2 of appendix A to this part, for each primary and redundant backup SO_2, Hg, and NO_x 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 §72.2 of this chapter.

*   *   *   *   *

2.3.1.1 Standard RATA Frequencies

(a) Except for Hg monitoring systems and as otherwise specified in §75.21(a)(6) or (a)(7) or in section 2.3.1.2 of this appendix, perform relative accuracy test audits semiannually, i.e., once every two successive QA operating quarters (as defined in §72.2 of this chapter) for each primary and redundant backup SO_2 pollutant concentration monitor, flow monitor, CO_2 pollutant concentration monitor (including O_2 monitors used to determine CO_2 emissions), CO_2 or O_2 diluent monitor used to determine heat input, moisture monitoring system, NO_x concentration monitoring system, or NO_x-diluent continuous emission monitoring system. For each primary and redundant backup Hg concentration monitoring system, Hg-diluent monitoring system, and sorbent trap monitoring system, RATAs shall be performed annually, i.e., once every four successive QA operating quarters (as defined in §72.2 of this chapter).

*   *   *   *   *

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

(a) For SO_2 pollutant concentration monitors, CO_2 pollutant concentration monitors (including O_2 monitors used to determine CO_2 emissions), CO_2 or O_2 diluent monitors used to determine heat input, NO_x concentration monitoring systems, Hg concentration monitoring systems, sorbent trap monitoring systems, moisture monitoring systems, Hg-diluent monitoring systems, and NO_x-diluent monitoring systems, the required semiannual or annual RATA tests shall be done at the load level (or operating level) designated as normal under section 6.5.2.1(d) of appendix A to this part. If two load levels (or operating levels) are designated as normal, the required RATA(s) may be done at either load level (or operating level).

*   *   *   *   *

2.3.2 Data Validation

*   *   *   *   *

(i) Each time that a hands-off RATA of an SO_2 pollutant concentration monitor, a NO_x-diluent monitoring system, a NO_x concentration monitoring system, a Hg concentration monitoring system, a Hg-diluent monitoring system, a sorbent trap monitoring system, or a flow monitor is passed, perform a bias test in accordance with section 7.6.4 of appendix A to this part. Apply the appropriate bias adjustment factor to the reported SO_2, Hg, NO_x, or flow rate data, in accordance with section 7.6.5 of appendix A to this part.

*   *   *   *   *

2.3.4 Bias Adjustment Factor

Except as otherwise specified in section 7.6.5 of appendix A to this part, if an SO_2 pollutant concentration monitor, flow monitor, NO_x continuous emission monitoring system, NO_x concentration monitoring system used to calculate NO_x mass emissions, Hg concentration monitoring system, Hg-diluent monitoring system, or sorbent trap monitoring system fails the bias test specified in section 7.6 of appendix A to this part, use the bias adjustment factor given in Equations A-11 and A-12 of appendix A to this part, or the allowable alternative BAF specified in section 7.6.5(b) of appendix A to this part, to adjust the monitored data.

2.4 Recertification, Quality Assurance, RATA Frequency and Bias Adjustment Factors (Special Considerations)

*   *   *   *   *

(b) Except as provided in section 2.3.3 of this appendix, whenever a passing RATA of a gas monitor or Hg monitoring system 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 appendix, or both), the RATA frequency (semi-annual or annual) shall be established based upon the date and time of completion of the RATA and the relative accuracy percentage obtained.

*   *   *   *   *

[For Alternatives # 1 and # 2 in Section II.B.3 of Appendix A to the Preamble]:

2.6 *Converter Check for Hg Monitors*

For each Hg pollutant concentration monitor, perform the converter check described in §75.20(c)(1)(vi) once in every month in which there are at least 168 unit or stack operating hours.

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

2.7 *Relative Accuracy Audits (RAAs) of Sorbent Trap Monitoring Systems*

For affected units with average Hg emissions > 9 lbs/yr for the 3 calendar years used to allocate the Hg allowances, if the owner or operator elects to use sorbent trap monitoring systems to quantify Hg emissions, a 3-run relative accuracy audit (RAA) of each sorbent trap monitoring system shall be performed in each QA operating quarter (as defined in §72.2 of this chapter) following initial certification, except for a quarter in which a full

RATA is performed. The load level and data validation provisions of sections 2.3.1.3 and 2.3.2 of this appendix apply to the RAAs.

[For Alternative # 1 in Section II.B.3 of Appendix A to the Preamble]:

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

Test	QA test frequency requirements				
	Dail	Monthl	Quarte	Semiannual*	Annual
Calibration Error (2 pt.)	✓				
Interference Check (flow)	✓				
Flow-to-Load Ratio			✓		
Leak Check (DP flow monitors)			✓		
Linearity Check (3 pt.)			✓		
Converter Check (Hg monitors)		✓			
RATA (SO_2, NO_x, CO_2, O_2, H_2O)[1]				✓	
RATA (all Hg monitoring systems)					✓
RATA (flow)[1,2]				✓	

* For monitors on bypass stack/duct, "daily" means bypass operating days, only. "Quarterly" means once every QA operating quarter. "Semiannual" means once every two QA operating quarters. "Annual" means once every four QA operating quarters.

* * * * *

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

RATA	Semiannual[w] (percent)	Annual[w]
SO_2 or NO_x [y]	7.5% < RA ≤ 10.0% or ± 15.0 ppm[x]	RA ≤ 7.5% or ± 12.0 ppm[x]
NO_x-diluent	7.5% < RA ≤ 10.0% or ± 0.020	RA ≤ 7.5% or ±0. 015
Hg-diluent	--------	RA ≤ 20.0% or ± 1.1 lb/10^{12}
Flow	7.5% < RA ≤ 10.0% or ± 1.5 fps[x]	RA ≤ 7.5%
CO_2 or O_2	7.5% < RA ≤ 10.0% or ± 1.0% CO_2/O_2 [x]	RA ≤ 7.5% or ± 0.7% CO_2/O_2[x]
Hg	--------	RA ≤ 20.0% or ± 1.0 μg/dscm[x]
Moisture	7.5% < RA ≤ 10.0% or ± 1.5% H_2O [x]	RA ≤ 7.5% or ± 1.0% H_2O [x]

[w] The deadline for the next RATA is the end of the second (if semiannual) or fourth (if annual) successive QA operating quarter following the quarter in which the CEMS was last tested. Exclude calendar quarters with fewer than 168 unit operating hours (or, for common stacks and bypass stacks, exclude quarters with fewer than 168 stack operating hours) in determining the RATA deadline. For SO_2 monitors, QA operating quarters in which only very low sulfur fuel as defined in §72.2, is combusted may also be excluded. However, the exclusion of calendar quarters is limited as follows: the deadline for the next RATA shall be no more than 8 calendar quarters after the quarter in which a RATA was last performed.

[x] The difference between monitor and reference method mean values applies to moisture monitors, CO_2, and O_2 monitors, low emitters of SO_2, NO_x, or Hg, and low flow, only.

[y] A NO_x concentration monitoring system used to determine NO_x mass emissions under §75.71.

[z] Including sorbent trap monitoring systems

*   *   *   *   *

[For Alternative # 2 in Section II.B.3 of Appendix A to the Preamble]:

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

Test	QA test frequency requirements				
	Dail	Monthl	Quarte	Semiannual*	Annual
Calibration Error (2 pt.)	✓				
Interference Check (flow)	✓				
Flow-to-Load Ratio			✓		
Leak Check (DP flow monitors)			✓		
Linearity Check (3 pt.)			✓		
Converter Check (Hg monitors)		✓			
RATA (SO_2, NO_x, CO_2, O_2, H_2O)[1]				✓	
RATA (all Hg monitoring systems)					✓
RATA (flow)[1,2]				✓	
RAA (sorbent trap systems; Hg			✓		

* For monitors on bypass stack/duct, “daily” means bypass operating days, only. “Quarterly” means once every QA operating quarter. “Semiannual” means once every two QA operating quarters. “Annual” means once every four QA operating quarters. For sorbent trap monitoring systems, the RAA is not required in a quarter in which a full RATA is performed.

* * * * *

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

RATA	Semiannual[w] (percent)	Annual[w]
SO_2 or NO_x [y]	7.5% < RA ≤ 10.0% or ± 15.0 ppm[x]	RA ≤ 7.5% or ± 12.0 ppm[x]
NO_x-diluent	7.5% < RA ≤ 10.0% or ± 0.020	RA ≤ 7.5% or ±0. 015
Hg-diluent	--------	RA ≤ 20.0% or ± 1.1 lb/10[12]
Flow	7.5% < RA ≤ 10.0% or ± 1.5 fps[x]	RA ≤ 7.5%
CO_2 or O_2	7.5% < RA ≤ 10.0% or ± 1.0% CO_2/O_2 [x]	RA ≤ 7.5% or ± 0.7% CO_2/O_2[x]
Hg	--------	RA ≤ 20.0% or ± 1.0 µg/dscm[x]
Moisture	7.5% < RA ≤ 10.0% or ± 1.5% H_2O [x]	RA ≤ 7.5% or ± 1.0% H_2O [x]

[w] The deadline for the next RATA is the end of the second (if semiannual) or fourth (if annual) successive QA operating quarter following the quarter in which the CEMS was last tested. Exclude calendar quarters with fewer than 168 unit operating hours (or, for common stacks and bypass stacks, exclude quarters with fewer than 168 stack operating hours) in determining the RATA deadline. For SO_2 monitors, QA operating quarters in which only very low sulfur fuel as defined in §72.2, is combusted may also be excluded. However, the exclusion of calendar quarters is limited as follows: the deadline for the next RATA shall be no more than 8 calendar quarters after the quarter in which a RATA was last performed.

[x] The difference between monitor and reference method mean values applies to moisture monitors, CO_2, and O_2 monitors, low emitters of SO_2, NO_x, or Hg, and low flow,

only.

[y] A NO_x concentration monitoring system used to determine NO_x mass emissions under §75.71.

[z] Including sorbent trap monitoring systems. Note that the RA specifications for Hg concentration also apply to the quarterly RAA tests of sorbent trap monitoring systems.

* * * * *

29. Appendix F to part 75 is amended by adding section 9 to read as follows:

Appendix F to Part 75–Conversion Procedures

* * * * *

9. *Procedures for Hg Mass Emissions*

9.1 Use the procedures in this section to calculate the hourly Hg mass emissions (in ounces) at each monitored location, for the affected unit or group of units that discharge through a common stack.

9.1.1 To determine the hourly Hg mass emissions when using a Hg concentration monitoring system or a sorbent trap monitoring system and a flow monitor, use the following equation:

$$M_{(Hg)_h} = \frac{K\ C_{(Hg)_h}\ Q_h\ t_h}{(1 - B_{ws})}$$

(Eq. F-28)

Where:

$M_{(Hg)h}$ = Hg mass emissions for the hour, rounded off to one decimal place (ounces).

K = 9.98×10^{-10} (ounces/dscf ÷ µg/dscm)

$C_{(Hg)h}$ = Hourly Hg concentration, adjusted for bias, where the bias-test procedures in appendix A to this part shows a bias-adjustment factor is necessary (µg/dscm). For sorbent trap systems, the value of $C_{(Hg)h}$ will be the same for each hour in the data collection period. For each pair of sorbent traps, report the higher of the two measured Hg concentrations.

Q_h = Hourly stack gas volumetric flow rate, adjusted for bias, where the bias-test procedures in appendix A to this part shows a bias-adjustment factor is necessary (scfh)

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

t_h = Unit or stack operating time, as defined in §72.2 (hr)

9.1.2 If a Hg-diluent monitoring system is used to determine the Hg mass emissions, first calculate the hourly Hg emission rate, in units of lb/10^{12} Btu, as follows:

(a) If the diluent gas (O_2 or CO_2) is analyzed on a dry basis, use Equation F-5 or F-6 in this appendix, with the following modifications. The value of "K" in these equations shall be 6.24 x 10^{-5} (lb· dscm · mmBtu / g · dscf · 10^{12} Btu), and the term "C_h" shall be replaced by "$C_{(Hg)h}$" , the hourly average Hg concentration measured by the Hg monitor, in units of μg/dscm.

(b) When the diluent gas is analyzed on a wet basis, the following equations in Method 19 in appendix A-7 to part 60 of this chapter shall be used, with appropriate modification: Equation 19-5 (if O_2 is the diluent gas) and Equation 19-9 (if CO_2 is the diluent gas). When using these equations, replace the term "C_d" with the expression "K $C_{(Hg)h}$", where "K" is 6.24 x 10^{-5} (lb · dscm · mmBtu / g · dscf · 10^{12} Btu), "$C_{(Hg)h}$" is the hourly average Hg concentration measured by the Hg monitor, in units of μg/dscm.

(c) Round off the calculated Hg emission rate to three decimal places.

9.1.3 Using the Hg emission rate from section 9.1.2 of this appendix, calculate the hourly Hg mass emissions using the following equation:

$$M_{(Hg)_h} = \frac{16\ E_{(Hg)_h}\ HI_h\ t_h}{10^6}$$

(Eq. F-29)

Where:

$M_{(Hg)h}$ = Hg mass emissions for the hour, rounded off to one decimal place (ounces).

$E_{(Hg)h}$ = Hourly average Hg emission rate for the hour, from section 9.1.2 of this appendix,
adjusted for bias, where the bias-test procedures in appendix A to this part shows a bias-adjustment factor is necessary (lb/10^{12} Btu)

HI_h = Average heat input rate for the hour (mmBtu/hr). Include bias-adjusted flow rate
values, where the bias test procedures in appendix A to this part shows a bias-
adjustment factor is necessary.

t_h = Unit or stack operating time, as defined in §72.2 (hr)

16 = Conversion factor between pounds and ounces

10^6 = Conversion factor between million (10^6) Btu and trillion (10^{12}) Btu

9.2 Use the following equation to calculate quarterly and year-to-date Hg mass emissions in ounces:

$$M_{(Hg)_{time\ period}} = \sum_{h=1}^{p} M_{(Hg)_h}$$

(Eq. F-30)

Where:

$M_{(Hg)time\ period}$ = Hg mass emissions for the given time period i.e., quarter or year-to-date, rounded to the nearest tenth (ounces).

$M_{(Hg)h}$ = Hg mass emissions for the hour, rounded to one decimal place (ounces).

p = The number of hours in the given time period (quarter or year-to-date).

9.3 If heat input rate monitoring is required, follow the applicable procedures for heat input apportionment and summation sections 5.3, 5.6 and 5.7 of this appendix.