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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477

2 6 2006

Dear Environmental Quality Board Member:

On August 24, 2006, the Environmental Protection Agency (EPA) submitted comments on Pennsylvania's proposed rulemaking entitled, "Standards for Contaminants; Mercury," which was published in the Pennsylvania Bulletin on June 24, 2006. The EPA wishes to revise one comment which it included in that comment letter.

The federal requirements for approval of State mercury regulations for EGUs state, at 40 CFR 60.24(h)(4), that States must require sources to use the federal monitoring, recordkeeping and reporting requirements specified at 40 CFR part 75. In our August 24, 2006 letter, in comment #7, we expressed concern that Pennsylvania reserves the right in its proposed regulation to approve certain alternatives to the federal monitoring, recordkeeping, and reporting provisions found at 40 CFR part 75. We requested that Pennsylvania clarify in its proposed regulation that it would not approve alternative requirements unless they were consistent with the 40 CFR part 75 requirements. EPA has since concluded that only EPA itself can approve alternatives to the part 75 requirements. Accordingly, EPA now requests that Pennsylvania revise its proposed regulation to remove the provisions allowing Pennsylvania to approve revisions to the part 75 requirements.

Thank you again for the opportunity to provide comments on this important regulation to control mercury emissions from the utility sector in Pennsylvania. If you have any questions, please contact me or Ray Chalmers of my staff at 215-814-2061.

Sincerely,

A handwritten signature in black ink, appearing to read "Judith M. Katz".

Judith M. Katz, Director
Air Protection Division

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INDEPENDENT REGULATORY
REVIEW COMMISSION



Hughes, Marjorie

From: Chalmers.Ray@epamail.epa.gov
Sent: Thursday, August 24, 2006 12:12 PM
To: RegComments@state.pa.us
Cc: Campbell.Dave@epamail.epa.gov
Subject: EPA's Comments on PA's Proposed "Standards for Contaminants;Mercury"



EPA Comments on
PA's Proposed ...

Attached is a copy of the Environmental Protection Agency's (EPA's) comments on Pennsylvania's proposed rulemaking entitled, "Standards for Contaminants; Mercury," which was published in the Pennsylvania Bulletin on June 24, 2006. These comments were signed by Judith M. Katz, Director, Air Protection Division, EPA Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029. The signed original was sent by express mail. I am the staff contact for EPA Region III's Air Division regarding this matter. Please contact me if any further information is required.

(See attached file: EPA Comments on PA's Proposed Mercury Control Regulation for EGUs.pdf)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

August 24, 2006

Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477

Dear Environmental Quality Board Member:

The Environmental Protection Agency (EPA) appreciates the opportunity to comment on Pennsylvania's proposed rulemaking entitled, "Standards for Contaminants: Mercury," which was published in the Pennsylvania Bulletin on June 24, 2006. EPA's comments follow:

1. Pennsylvania's proposed Regulatory §123.202, entitled, "Definitions."

EPA notes that Pennsylvania's definition of electric generating unit (EGU) reflects the definition included in EPA's rulemaking entitled, "Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Final Rule" (70 FR 28607, May 18, 2005). EPA subsequently modified this definition in its notice entitled, "Revision of December 2000 Clean Air Act Section 112(n) finding Regarding Electric Utility Steam Generating Units; and Standards of Performance for New and Existing Electric Utility Steam Generating Units; Reconsideration" (71 FR 33388, June 9, 2006). EPA accordingly requests that Pennsylvania revise the definition in the State's rule to reflect EPA's revised definition.

Additionally, in order for the term "EGU" to be applied correctly, there are several terms used in the definition of EGU that also need to be defined in the State's rule. Those terms, in turn, include additional terms that also need definitions. All such definitions, as set forth in 40 CFR 60.24(h), need to be included in the State's rule in order for the term EGU to apply to the correct units in the State. These terms include "boiler", "bottoming-cycle cogeneration unit", "coal", "coal-derived fuel", "coal-fired", "combustion turbine", "generator", "gross electrical output", "gross thermal energy", "maximum design heat input", "potential electrical output capacity", "sequential use of energy", "topping-cycle cogeneration unit", "total energy input", "total energy output", "unit", "useful power", "useful thermal energy", and "utility power distribution system". Also, EPA notes that the definitions of "Existing EGU" and "New EGU" as defined under §123.202 need to be revised. Existing EGU is defined as "An EGU which commenced construction, modification or reconstruction before January 30, 2004." This must be corrected by including the words "on or" prior to the words "before January 30, 2004." New EGU is defined as "An EGU which commenced construction, modification or reconstruction, as defined under 40 CFR Part 60 (relating to standards of performance for new stationary sources), on or after January 30, 2004." This must be corrected by excluding the words "on or" prior to the words "after January 30, 2004" in order to be consistent with 40 CFR part 60.

Other terms used in Pennsylvania's rule that are defined at 40 CFR 60.24(h) and should be included in Pennsylvania's definitions are "owner" and "operator". In addition, Pennsylvania's rule should include a definition of "heat input", for example, the definition of "heat input" in §60.4102 of EPA's model mercury trading rule at 40 CFR part 60, subpart HHHH.

2. Pennsylvania's proposed Regulatory §123.204, entitled, "Exceptions."

EPA is concerned by Pennsylvania's proposed §123.204, entitled, "Exceptions," which reads as follows:

"Consistent with §123.207(b) (1) (relating to annual emission limitations for coal-fired EGUs), the owner or operator of an EGU that enters into an enforceable agreement with the Department not later than December 31, 2007, for the shutdown and replacement of the unit with IGCC technology no later than December 31, 2012, shall be exempted from compliance with the following Phase 1 requirements for the converted unit:

- (1) Section 123.205 (relating to emission standards for coal-fired EGUs).
- (2) Section 123.207."

This provision is of concern to EPA because one of the key criteria for EPA approval of a State plan for control of mercury emissions from electric generating units is that the plan must assure that the State will meet the cap on annual mercury emissions for the State as set forth at 40 CFR 60.24(h). In its proposed rule, Pennsylvania's approach to meeting this requirement is to assure that the total mercury emissions from the State's electric generating units will remain below the cap set forth at 40 CFR 60.24(h) by using an allowance system in which the various units are allocated allowances to emit mercury equal to a portion of the cap. If Pennsylvania were to exempt certain electric generating sources from the requirement to emit mercury at levels equal to or less than their allocated allowances, the total mercury emissions from the State's electric generating units could potentially exceed the cap specified at 40 CFR 60.24(h). Accordingly, EPA would not consider Pennsylvania's proposed rule to be approvable under the provisions 40 CFR 60.24(h) if Pennsylvania submits it with §123.204 as presently proposed.

EPA notes that in the preamble to the rule Pennsylvania recognized the potential for the cap to be exceeded and attempted to address this concern by stating that "Section 123.204 (relating to exceptions) is proposed to provide that the owner or operator of an EGU that enters into an enforceable agreement with the Department for the shutdown and replacement of the unit with IGCC technology shall be exempted from compliance with the Phase 1 requirements of §§ 123.205 and 123.207. **This exemption will only be available if there are sufficient allowances in the supplemental pool under § 123.208.**" (Emphasis added.) This discussion in the preamble is not enforceable and does not resolve the approvability issues regarding the exemption provisions.

3. Pennsylvania's proposed §123.205, entitled, "Emission standards for coal-fired EGUs."

EPA requests that Pennsylvania include a provision in this section notifying all owners and operators of new sources that they must also comply with the mercury control requirements in EPA's New Source Performance Standards as specified in Subpart Da and as adopted by reference by Pennsylvania.

4. Pennsylvania's proposed §123.206, entitled, "Compliance requirements for the emission standards for coal-fired EGUs."

Under this section, Pennsylvania provides for the approval of an alternative emission standard or schedule, or both, if the owner or operator of an EGU subject to the emission standards of §123.205 demonstrates in writing to the Department's satisfaction that the mercury reduction requirements are economically or technologically infeasible. EPA requests that Pennsylvania add a statement clarifying that the Department's approval of an alternative standard or schedule to those specified at §123.205 would in no case relax the requirement to meet the annual emission limitations for coal-fired EGUs specified at §123.207. Likewise, EPA also requests that Pennsylvania exclude from the application requirements in §123.206 (c)(2)(ix) the phrase "123.207—123.215". Not only should there be no exemptions from §123.207, but also it is unclear why there should be any exemptions from the supplement pool provisions in §§123.208-123.209 and it seems that alternatives to monitoring requirements (§§123.210-123.215) should be addressed in the monitoring provisions themselves.

In this section, Pennsylvania also allows facility-wide emissions averaging. To ensure that Pennsylvania's proposed emission limits at §123.205 are not reduced in their intended effectiveness by the facility-wide averaging provision, EPA recommends that Pennsylvania consider specifying how sources would calculate their facility-wide average in cases where they are complying with §123.205 by showing that they have achieved a required percentage control of total mercury as measured from the mercury content in the coal as fired. Pennsylvania might wish to consider requiring such sources to use a facility-wide average in which the percentage control achieved is weighted by EGU size. In the absence of such a specification of how the average is to be calculated, a source might be able to emit higher amounts of mercury than Pennsylvania intended if the source were, for instance, to average the percentage control of large EGUs with low percentages of control with the percentage control of smaller EGUs with high percentages of control.

5. Pennsylvania's proposed §123.207, entitled, "Annual emission limitations for coal-fired EGUs."

Pennsylvania's proposed §123.207(b), entitled, "Emission limitation set-asides" establishes the total ounces of mercury available for emission limitation set-asides as annual non-tradable mercury allowances in the Statewide mercury allowance program.

As proposed, §123.207(b)(1) specifies a set-aside of "56,960 ounces (3,560 pounds) of mercury emissions for Phase 1, effective from January 1, 2010, through December 31, 2014." This set-aside reflects the annual EGU mercury budget for Pennsylvania of 1.78 tons per year (or

3,560 pounds) as set forth in EPA's rulemaking entitled, "Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Final Rule" (70 FR 28607, May 18, 2005). However, in its notice entitled, "Revision of December 2000 Clean Air Act Section 112(n) finding Regarding Electric Utility Steam Generating Units; and Standards of Performance for New and Existing Electric Utility Steam Generating Units: Reconsideration" (71 FR 33388, June 9, 2006), EPA modified the annual mercury budget for Pennsylvania for the Phase 1 period starting in 2010. The revised budget is 1.779 tons per year (or 3558 pounds). Accordingly, Pennsylvania must change the Phase 1 budget in its proposed rule to reflect this reduction by EPA in the annual allowable mercury emissions from the State's EGUs.

EPA notes that §123.209(d) and (f) provide for allowance allocations only for circulated fluidized units (CFBs) and pulverized coal-fired units (PCFs). Since the term "EGU" includes units burning any amount of coal or coal-derived fuel (e.g., blast furnace gas or coke oven gas), EPA requests that Pennsylvania consider whether there might be any EGUs now or in the future that may not be CFBs or PCFs and that should be allocated allowances.

EPA believes that Pennsylvania intends that the annual nontradable mercury allowances for a given calendar year will not be banked for future use in any subsequent calendar year. An express prohibition against banking is necessary in order to ensure that the annual cap is not exceeded in any year. A provision at §123.207(j)(3) appears to prohibit existing EGUs from using allowances for a given year from the existing unit set-aside in a future year. Provisions at §123.209(h) and (i) appear to prohibit existing EGUs from using allowances for a given year from the annual emission limit supplement pool in a future year. However, EPA is concerned that a similar provision does not exist for the use of the allowances by new units and the proposed rule does not bar the Department from carrying over unused allowances for a given year from the annual emission limit supplement pool to a future year.

Similarly, EPA believes that Pennsylvania intends that the requirement to have nontradable allowances covering mercury emissions will apply to new, as well as existing units, and that the failure to meet this requirement will be a violation of the Clean Air Act. However, §123.207(j)(5) appears to apply only to existing EGUs. In addition, the term "the act" in the provision does not appear to be defined. Moreover, there does not appear to be a provision for units at existing or new EGUs stating that if their total allowances (whether allocated and/or from the annual emission limit supplement pool) do not cover the units' emissions for the given year, they are in violation of the Clean Air Act. It seems that §123.207(j)(5) should state that, for any EGU, emissions in excess of the total of the actual number of allowances awarded plus any allowances from the annual emission limit supplement pool is a violation.

EPA is also concerned by the part of Pennsylvania's provision at §123.207(k) that pertains to sources scheduled for shutdown. Pennsylvania states at §123.207(k) that "Annual nontradable mercury allowances will not be set aside for the owner or operator of an existing affected EGU that is already shut down, scheduled for shutdown, or is on standby as of the effective date of each set-aside phase under subsection (d) or (f)." EPA considers the non-allocation of allowances to sources scheduled for shutdown prior to the start of a set-aside phase acceptable only for situations where there is a legally enforceable scheduled date for the shutdown of the EGU and where the required date for shutdown of the EGU precedes the start of the set-aside phase. In the absence of such a more detailed specification of when Pennsylvania

will not set-aside allowances for an EGU scheduled for shutdown there would be a potential for the total emissions from EGUs in Pennsylvania to exceed the mercury emissions budget for Pennsylvania specified at 40 CFR 60.24(n). Accordingly, Pennsylvania must modify §123.207(k) to state that Pennsylvania will not set aside allowances for an EGU scheduled for shutdown only in cases where the EGU is "... subject to a legally enforceable requirement that the EGU be shutdown prior to the start of a set-aside phase..."

EPA also notes that Pennsylvania provides at §123.207(l) that the "Department may revise the percentage of set-aside used to determine the number of ounces of mercury set aside for future annual mercury emission limitations to accommodate the emissions from new EGUs," and at §123.207(m) that the "Department may revise the percentage of set-aside used to determine the number of ounces of mercury set-aside for future annual mercury emission limitations to accommodate changes in the calculation of baseline heat input." In both cases, Pennsylvania states that it would make such revisions "so that the total number of ounces of mercury emissions in the Statewide mercury allowance program is not exceeded." EPA asks that Pennsylvania specify that if it makes such changes it will publish the changes, as well as associated changes in the number of allowances set aside for EGUs under Phase 1 or Phase 2 of the Statewide mercury program, in the Pennsylvania Bulletin. EPA requests that Pennsylvania provide notice to EPA of any State changes in the allocations.

EPA also has several concerns with the provision at §123.207(o) regarding compliance. First, it appears to apply only to existing EGUs. Second, there is no date or deadline by which compliance will be determined. Third, there is no procedure for determination of compliance. EPA assumes that the compliance procedure is a comparison of allowances allocated and/or provided from the annual emission limit supplement pool with a mass amount of emissions. The option to comply by "facility-wide emissions averaging" doesn't seem applicable in this context; perhaps what is meant is an option to comply on a facility-by-facility basis.

6. Pennsylvania's proposed §123.208, entitled "Annual emission limit supplement pool," and proposed §123.209, entitled "Petition process."

Pennsylvania explains in §123.208 that it will establish an annual emission limit supplement pool to monitor the annual nontradeable mercury allowances created as part of the new affected EGU set-aside provided under §123.207(c) or resulting from unused annual nontradeable mercury emission allowances set aside as emission limit supplements under §123.207(j)(2). Pennsylvania further provides in §123.209 that it will administer this pool in accordance with the petition process described in that section. EPA notes that Pennsylvania does not directly specify in either §123.208 or §123.209 the priority it will give to allocating allowances to owners and operators proposing to construct new units, the procedure it will use to allocate allowances to owners and operators proposing to construct new units, or the timing of those allocations, even though Pennsylvania states that the set-aside for new units will be one of the sources of the allowances in the pool. EPA also notes that Pennsylvania does not address in either §123.208 or §123.209 those cases where the State has granted a unit owner or operator an exemption from Phase 1 requirements because the owner or operator has agreed to shutdown an existing EGU and to replace it with IGCC technology, even though Pennsylvania explained in its preamble for the proposed regulation that the State would not grant an exemption from Phase 1

requirements unless the State had "sufficient allowances in the supplemental pool under §123.208." EPA recommends that Pennsylvania specifically address in proposed §123.209 what priority the State will give to allocating allowances to owners and operators who propose to construct new units and also the State's process for making the allocations. Further, as discussed above, EPA requests that Pennsylvania include in §123.209 provisions stating that new units cannot carry over allowances for a given year from the annual emission limit supplement pool to a future year and that the Department will not carry over unused allowances from the annual emission limit pool from one year to the next.

7. Pennsylvania's proposed §123.210 entitled, "General monitoring and reporting requirements."

At proposed §123.210(b), Pennsylvania specifies that "Except as provided in subsection (c), the owner or operator of an existing affected EGU shall comply with the monitoring, recordkeeping and reporting requirements as provided in this section, §§123.211 – 123.215 and §139.101 (related to general requirements) and the applicable provisions of the Continuous Source Monitoring Manual (DEP 274-0300-001). For purposes of complying with these requirements, the definitions in §123.202 (relating to definitions) and in 40 CFR 72.2 (relating to definitions) apply." Pennsylvania must modify proposed §123.210(b) by adding a statement that source owners and operators must also comply with the requirements of 40 CFR Part 75, entitled "Continuous Emission Monitoring," with regard to mercury mass emissions.

This modification is needed given that EPA's requirements for approval of state plans for controlling mercury emissions from EGUs specify, at 40 CFR 60.24(h) (4), that "Each State plan under paragraph (h) (1) of this section shall require EGUs to comply with the monitoring, record keeping, and reporting provisions of part 75 of this chapter with respect to Hg mass emissions." Consistent with 40 CFR 60.24(h)(4), Pennsylvania's rule must require EGUs to use emissions data reported in accordance with 40 CFR part 75 to show compliance with §123.207, the provision that is the basis for Pennsylvania's demonstration that its State plan will result in compliance with Pennsylvania's annual EGU mercury budget as required by 40 CFR 60.24(h)(3).

EPA notes that Pennsylvania requires in its proposed "Section 111(d) State Plan for The Control of Mercury Emissions from Existing Coal-Fired Steam Electric Generating Units," dated July 24, 2006, that owners and operators of EGUs meet the requirements of 40 CFR part 75. EPA's understanding is that Pennsylvania intends to submit this Section 111(d) plan to address all of the Section 111(d) requirements found at 40 CFR 60 subpart B, not just the mercury control-related requirements, and that Pennsylvania will submit its regulation for controlling mercury emissions from EGUs as a major part of the Section 111(d) plan. While EPA recognizes that Pennsylvania's proposed Section 111(d) plan specifies that owners or operators of EGUs must meet the monitoring, recordkeeping, and reporting requirements provisions of 40 CFR part 75, EPA requests that Pennsylvania further indicate that owners and operators must meet these requirements by also indicating their applicability in the State's proposed regulation.

Also, EPA requests that Pennsylvania state in its regulation that the Part 75 requirements will take precedence if a case should arise where there is a conflict between the requirements of Part 75 and Pennsylvania's State requirements. EPA also suggests that Pennsylvania revise its proposed regulation to eliminate known conflicts. EPA has noted several examples of actual or potential conflicts. These include: (1) While §123.210(c) seems to require certain units to use low mass emission monitoring in lieu of CEMS, 40 CFR part 75 provides such units the option of using CEMS or low mass emission monitoring. (2) Section 123.212(a) requires use of missing data procedures in Pennsylvania's Continuous Source Monitoring Manual, which may differ from the missing data procedures in 40 CFR part 75. Further, EPA also notes that while §123.210(e) requires monitoring requirements to be met starting March 1, 2009, §60.4170(b) of EPA's model mercury trading rule requires monitoring requirements to be met starting January 1, 2009.

In addition, EPA requests that Pennsylvania clarify in the proposed regulation that it will not approve alternative requirements unless they are consistent with the Part 75 requirements. EPA notes that Pennsylvania has reserved the right to approve alternatives in provisions found at proposed §123.210(h)(i) and proposed §123.211(a)(5)(iii)(A). Proposed §123.210(h)(i) states that "An owner or operator of an affected EGU may not use any alternative monitoring system, alternative reference method or any other alternative to the requirements of this section and §§123.211—123.215 unless the alternative is approved in writing by the Department." Proposed §123.211(a)(5)(iii)(A) states that in cases where the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall: "(A) Substitute, for each diapproved monitoring system, for each hour of EGU operation during the period of invalid data specified under 40 CFR 75.20(a)(4)(iii) or 75.21(e) (relating to quality assurance and quality control procedures) and continuing until the applicable date and hour specified under 40 CFR 75.20(a)(5)(i), either the following values or, if approved by the Department in writing, an alternative emission value that is more representative of actual emissions that occurred during the period...."

EPA also notes that, in order to comply with 40 CFR part 75, the owners and operators of EGUs must have an identified designated representative specifically for the mercury-related provisions of 40 CFR parts 60 and 75. EPA recommends that Pennsylvania include in its rule the designated representative requirements set forth in §§60.4110-60.4114 of EPA's model mercury trading rule at 40 CFR part 60, subpart HHHH. EPA is willing to work with Pennsylvania in order to help develop the appropriate language.

8. General Comment

EPA intends to issue a proposed CAMR federal plan rule, which will likely include proposed changes to some definitions in 40 CFR 60.24(h); to some provisions in the model mercury trading rule (including the designated representative provisions in 40 CFR 60.4110-60.4114; and, to the monitoring provisions in 40 CFR 60.4170-60.4176). Changes that are finalized in these provisions will need to be reflected in Pennsylvania's rule.

Thank you for the opportunity to provide comments on this important regulation to control mercury emissions from the utility sector in Pennsylvania. If you have any questions, please contact me or Ray Chalmers of my staff at 215-814-2061.

Sincerely,

A handwritten signature in black ink, appearing to read "Judith M. Katz", written over a faint, illegible typed name.

Judith M. Katz, Director
Air Protection Division