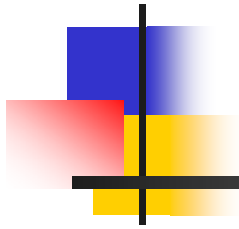


Citizens Advisory Council Meeting September 19, 2006



Bureau of Air Quality
Pennsylvania Department of Environmental Protection
Harrisburg, PA



PA's Proposed Mercury Rule

- June 24, 2006: Proposed rulemaking published in the Pennsylvania Bulletin.
- August 28, 2006: public comment period closed.
- Overwhelming public interest in the Pennsylvania-specific mercury reduction rule
 - Approximately 11, 000 commentators on the proposed rule
- September 25, 2006: IRRC comment period closes.



Summary of Public Comments: General

- Letters of support for Pennsylvania rule.
- Health and welfare effects concerns for public health and the environment.
- Opposition to trading.
- Pennsylvania as environmental leader.
- Nontradable program will cause older plants to shut down.
- Electric reliability concerns.
- No compelling reason for state-specific rule.
- Trading provides for early incentives to reduce emissions



Proposed Mercury Rule: Applicability

- Applicability - Any coal-fired EGU with a nameplate capacity of 25 MW or more.
- Each EGU would be required to meet:
 - a numerical emission standard or minimum control efficiency and
 - an annual emission limit in ounces of Hg emitted.



Proposed Mercury Rule: Exception

- The owner or operator of an existing EGU that enters into an enforceable agreement for the shutdown and replacement with Integrated Gasification Combined Cycle (IGCC) would be exempted from compliance with the Phase 1 Hg emission standards only.



Proposed Mercury Rule: Compliance Deadlines

- Phase 1 (January 1, 2010)
 - Initial level for numerical emission standard
 - or control efficiency, **and**
 - an annual emission limit by unit.
- Phase 2 (January 1, 2015)
 - More stringent emission standard or
- control efficiency, **and**
 - annual emission limit by unit.



Proposed Mercury Rule: Emission Standards for New EGUs

- PC-Fired - output based emission standard of
 - 0.011 lb/GWh or 90% capture efficiency.
- CFB burning coal – output based emission standard of
 - 0.011 lb/GWh or 90% capture efficiency.
- CFB burning waste coal - output based emission standard of
 - 0.0096 lb/GWh or 95% capture efficiency.
- IGCC - output based emission standard of
 - 0.0048 lb/GWh or 95% capture efficiency.



Proposed Mercury Rule: Phase 1 Existing EGU Standards

- PC-Fired - output based emission standard of
 - 0.024 lb/GWh or 80% capture efficiency.
- CFB - output based emission standard of
 - 0.0096 lb/GWh or 95% capture efficiency.



Proposed Mercury Rule: Phase 2 Existing EGU Standards

- PC-Fired - output based emission standard of
 - 0.012 lb/GWh or
 - 90% capture efficiency.
- CFB - output based emission standard of
 - 0.0096 lb/GWh or
 - 95% capture efficiency.



Proposed Mercury Rule: Emission Standard Compliance Options

- Unit-by-unit basis.
- Emissions averaging among the units at a specific facility.
- Alternative emission standard/compliance schedule.



Proposed Mercury Rule: Annual Emission Limitations

- Established for each EGU on ounces per year basis.
- Based on CAMR allocation distribution methodology using three highest years within years 2000-2004 EGUs heat-input.
- Establishes the same emission limitation for CFB units during Phase 1 and Phase 2.
- Provides regulatory assurance for Pennsylvania to meet the EPA CAMR Hg budgets.



Proposed Mercury Rule: Annual Emission Limitation Compliance Components

- Allocate to each EGU an available amount of nontradable allowances based on CAMR caps.
- Set aside for New Source EGUs:
 - Phase 1 – 5%.
 - Phase 2 – 3%.
- Same allocation for CFBs during Phases 1 and 2.
- Each affected unit can draw up to the available amount of allowances based on their actual emissions for compliance with the annual emission limit.
- Owners/operators of EGUs may petition Department for additional allowances from the supplemental pool.



Proposed Mercury Rule: Other Requirements

- Monitoring Requirements
 - Similar to CAMR
- Testing Requirements
 - Similar to CAMR
- Recordkeeping and Reporting Requirements
 - Similar to CAMR



Draft Final Regulation

- Adds certain definitions recommended by EPA.
- Adds a provision to allow “fuel pretreatment” credit for emission standard compliance.
- Deletes provisions allowing compliance presumptions and preferences for bituminous coal.
- Allows emissions averaging to demonstrate compliance with the annual emission limitation requirements.



Draft Final Regulation

- Clarifies that an approved alternate emission standard and/or compliance schedule would not relieve an EGU owner/operator from the requirements of §§123.207 - 123.215.
- Reduces Phase 1 “hard” cap to 3,558 lbs (56,928 oz.)
- Retains Phase 2 “hard” cap of 1,404 lbs. (22,464 oz.)
- Provides options for demonstrating compliance with the annual emission limitation:
 - Unit-by-unit basis.
 - Facility-wide emissions averaging.
 - System-wide emissions averaging.



Draft Final Regulation

- Allows the owners/operators of new EGUs to petition for supplemental allowances.
- Clarifies that any alternatives to 40 CFR Part 75 must be approved by EPA.
- Clarifies the applicability of the federal NSPS and state-specific mercury requirements.
 - NSPS will also apply to new EGUs
- Clarifies that the Integrated Gasification Combined Cycle (IGCC) exemption applies solely for Phase 1 emission standards.



Draft Final Regulatory Changes: Definitions

- The definitions under the Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources promulgated in 40 CFR Part 60 subpart Da and HHHH would be adopted and incorporated by reference in their entirety.
- These definitions would be used to interpret certain provisions in the final mercury rulemaking.



Draft Final Regulatory Changes: Applicability

- The requirements of §§ 123.201 – 123.215 would apply to owners and operators of an EGU located in this Commonwealth and except as otherwise noted supercedes those requirements that are adopted and incorporated by reference under 25 Pa. Code Chapter 122.



Draft Final Regulatory Changes: Emission Standards

- *Credit for fuel pretreatment*
 - The mercury removal efficiency due to pretreatment of coal or waste coal may be credited towards the minimum % control efficiency of total mercury. This credit would be approved consistent with the process outlined in 40 CFR Part 60 for pretreatment for sulfur removal.



Draft Final Regulatory Changes: Compliance Requirements Emission Standards

- The Existing EGUs combusting 100% bituminous coal preference would be deleted.
 - This addresses concerns raised by industry regarding the constitutionality of the provision.
- The Department's approval of an alternate standard or a compliance schedule would not relieve the owner or operator of an EGU from complying with the other requirements of § 123.207 - §123.215.



Draft Final Regulatory Changes: Annual Emission Limitations

- Phase 1 budget reduced from 3,560 lbs. to 3,558 lbs (56,928 oz.).
- Phase 2 budget of 1,404 lbs. (22,464 oz.) is unchanged.
- Phase 1 set aside for existing EGU reduced from 54,112 oz. to 54,080 oz.
- Phase 2 set aside of 22,790 oz. for existing EGU is unchanged.



Draft Final Regulatory Changes: Annual Emission Limitations

- After a new EGU has commenced operation and completed three control periods, the EGU would become an existing EGU after completion of three control period years.
- The new EGU would continue to receive non-tradable allowances from the new unit set-aside until the new EGU is eligible to use allowances allocated from existing EGU set-aside.
- Once a new EGU is eligible to receive non-tradable allowances from the existing EGU set-aside, new maximum allowance levels for all existing EGUs would be established and published in the Pa. Bulletin by May 31 of the year that is two years prior to the control period.



Draft Final Regulatory Changes: Annual Emission Limitations

- The provisions of Section 123.202-123.215 would not be applicable to an EGU that would be permanently shut down no later than December 31, 2009 provided the owner or operator of that unit has notified the Department and executed a legally enforceable document that requires the EGU to be permanently shutdown.



Draft Final Regulatory Changes: Annual Emission Limitations

- The owner or operator of one or more affected mercury allowance program EGUs subject to the requirements of this section would demonstrate compliance with the applicable requirements using one of the following methods by no later than March 1 for the preceding control period:
 - Unit-by-unit basis.
 - Facility-wide basis.
 - System-wide basis.



Draft Final Regulatory Changes: Compliance Options for Annual Emission Limitations

- Facility-wide or a System-wide averaging: The owner or operator of an EGU may comply with the emission limitations by means of facility-wide or System-wide averaging that shows that the actual emissions of mercury from the EGUs covered by the averaging are less than the allowable emissions of mercury from all EGUs covered by the demonstration on an annual basis.
- The owners or operators of more than one existing facility with EGUs could only participate in system-wide averaging that includes other facilities that they own or operate in Pennsylvania.



Draft Final Regulatory Changes: Compliance Option for Annual Emission Limitations

- *System-wide emissions averaging*
 - owners or operators of two or more affected facilities under common ownership or operator control within this Commonwealth may achieve compliance with the annual emission limitation by ensuring that the aggregate of actual mass emissions from all units, under the averaging demonstration, must be less than the aggregate of allowable mass emissions from all such units.



Draft Final Regulatory Changes: Petition Process

- Order of preference for supplemental allowances for existing EGUs would be deleted.
 - This addresses concerns raised by industry and the State Attorney General's Office regarding the constitutionality of the provision which pertains to the EGUs burning 100% bituminous coal.
- New EGU owners and operators would also be eligible to participate in the petition process for supplemental non tradable allowances.



Draft Final Regulatory Changes: General Monitoring and Reporting Requirements

- Except as otherwise provided, the owner or operator of an existing affected EGU would comply with the requirements of 40 CFR Part 75 (relating to continuous emission monitoring), with regard to mercury mass emissions, monitoring, recordkeeping, and reporting requirements as provided in the proposed rulemaking, section 139.101 (relating to general requirements) and the applicable provisions of the Continuous Source Monitoring Manual (DEP 274-0300-001).



Draft Regulatory Changes: General Monitoring and Reporting Requirements

- No owner or operator of an affected EGU could use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of 40 CFR Part 75 unless such alternative is approved in writing by the EPA in accordance with 40 CFR Part 75 Subpart E.
- If the emissions monitoring system that fails to meet such a quality-assurance or quality-control requirement is a mass emissions monitoring system, mass emissions data must be substituted using the applicable missing data procedures in 40 CFR Part 75.



Next Steps: Mercury Final Rulemaking

- Finalize “Decision” and Comment and Response Documents.
- Hold AQTAC Meeting on September 27, 2006.
 - Dixon University Center (Richards Recital Hall), 2986 North Second Street, Harrisburg, PA
- EQB consideration of final rulemaking on October 17, 2006.

Questions?

