EPA's Proposed Utility Mercury Reductions Rule

MWAQC Technical Advisory Committee

April 9, 2004

Outline

- Why regulate mercury?
- Regulatory and legislative proposals
- Criticisms of regulatory proposals
- Topics for comment

Why Regulate Mercury?

- Mercury is a persistent, toxic pollutant.

- Rain and snow deposit mercury in lakes and rivers, where it is ingested by fish and other animals.

- The mercury is transformed through biological processes into methylmercury, an organic mercury compound highly toxic to humans.

- Mercury is toxic when inhaled or ingested. The methylmercury resulting from power plant emissions is ingested by humans through consumption of fish.

Why Regulate Mercury?

- Mercury is a neurotoxin. It causes damage to the brain and nervous system.

- Prenatal exposure to methylmercury impairs language ability, fine motor skills, visual-spatial abilities, intelligence and attention span.

- Methylmercury has also been linked to coronary disease in adults.

Historical Mercury Controls

- EPA reduced emissions from municipal waste combustions and medical waste incinerators in 1995 and 1997, respectively
- Rules have been introduced to reduce mercury from chlor-alkali plants and industrial boilers
- Mercury has been banned from many commercial and consumer products

Coal-fired power plants are the largest remaining source of anthropogenic mercury in the US.

Regulation of Utility Hg Emissions

- Section 112 of Clean Air Act Amendments directed EPA to study emission of hazardous air pollutants (HAPs) by electric generating units to determine effect on public health.
- Is regulation of those emissions appropriate and necessary? If so, EPA is required to set standards of performance.

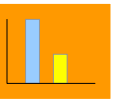
In late 2000, EPA determined that it was appropriate and necessary to regulate utility emissions of mercury and nickel.

Regulatory Proposals

Maximum Available Control Technology	"Clear Skies Act" Mirror Proposal
• Limits pounds of mercury produced per unit input/output	• Two-phase cap
• Trading alternative proposed	• Trading optional
• Emission limits differ by coal type	• Reductions as proposed by Clear Skies Act
• Compliance within 3 years of final rule (i.e. late 2007)	• Emission limits differ by coal type
• Smallest reductions	• Need to revise December 2000 Section 112 determination

Comparing Proposed Approaches

Size of Reductions



Larger

↓

Smaller

- Jeffords
- Carper/Chafee
- Clear Skies/IAQ Rule
- Mercury MACT

Timing of Reductions

Earlier

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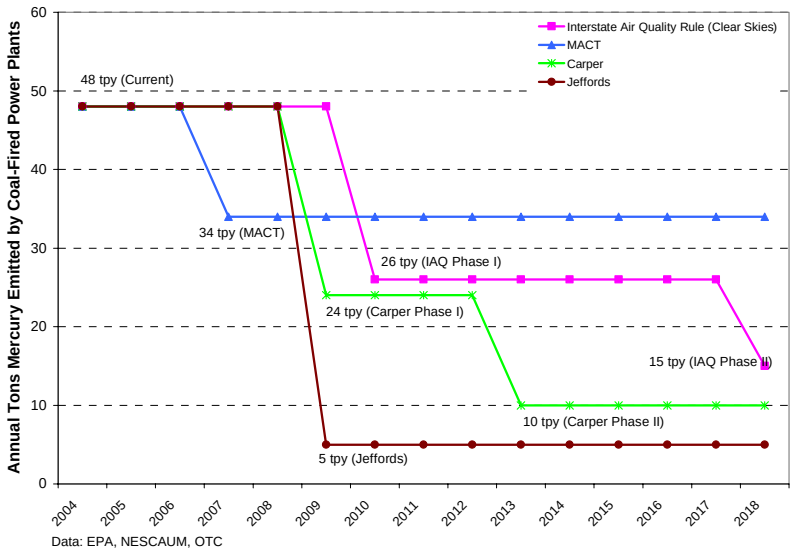
Later

- Mercury MACT
- Jeffords
- Carper/Chafee
- Clear Skies/IAQ Rule

Emissions Trading

- MACT cap with trading
- Clear Skies/IAQ Rule (2010+)
- Carper/Chafee (partial)

Proposed Mercury Reductions



Data: EPA, NESCAUM, OTC

Problems with MACT Proposal

Arch Coal, Inc.

SOUTHERN COMPANY
Energy to Serve Your World

- Emission levels set by MACT are reasonable, but timeline is unrealistic
- Higher emission limits on sub-bituminous and lignite coals could have an adverse effect on the Eastern bituminous coal producers.
- May sue for use of "inadequate and skewed data" in setting standard.

NPDC
STAPPA/ALAPCO

- MACT did not take into account highly effective removal technologies currently in demonstration phase (e.g. activated carbon injection)
- Emission standards should not differ between coals
- Will litigate MACT levels and legal premise for MACT+ trading proposal.

Problems with CSI Proposal

- Trading creates hot spots and environmental justice concerns.
- 2010 reductions require no reductions beyond co-benefits from currently available controls.
- With banking of allowances, will reach 15 ton cap in 2030, not 2018.
- 2018 compliance date is unnecessarily protracted.
- Regulation under Section 111 does not require a periodic re-evaluation of risks, which would be required under regular MACT.
- Environmental groups will litigate reversal of MACT determination and regulation under Section 111, further delaying attempts to improve public health.

Timeline for Approval

- February 25-26 2004: Public hearings held
- March 30: Original comment period ends
- March 31: Additional hearing held
- April 30: Extended comment period ends
- Late 2005: Rule finalized