Post-Finding Activities -- Utility HAP Regulatory Development

Meeting with Stakeholder Groups
March 12, 2001
Purpose

☒ To get stakeholder input on regulatory approach for oil- and coal-fired electric utility steam generating units
☒ To discuss next steps
  ▲ Section 112 rule
  ▲ Timing
  ▲ Process
Background

zte EPA announced finding on 12/14/2000

- Regulation not necessary for gas-fired boilers
  - Gas-fired finding does not apply to combustion turbines being covered under another rulemaking
  - Proposal expected in next several months

- Regulation necessary for oil- and coal-fired boilers

- Based on
  - Public health concerns
  - Mercury emissions from power plants
  - Information that mercury from power plants can be controlled
Finding Follow-up

Actions to review finding
- Have received one petition for administrative reconsideration (from UARG)
- Two petitions have been filed with the Court of Appeals for the District of Columbia Circuit (by UARG and EEI)

Cannot address these actions today
Section 112 Rule

- “Best of the best” for new sources
- Average of the top performing 12 percent (e.g., top 6 percent) for existing sources
- Allows for subcategorization
- Listing decision triggers section 112(g) case-by-case MACT determinations for new coal- and oil-fired sources
Section 112 Focus

✦ Most of attention has been on mercury from coal-fired units
✦ Also concerned about
  □ Other HAP from coal-fired units
  □ Nickel from oil-fired units
Timing

❖ Settlement agreement with NRDC provides for
  □ Proposal of section 112 regulations by 12/15/2003
  □ Promulgation of section 112 regulations by 12/15/2004
❖ Compliance date of 12/15/2007
Current Activities

- Stakeholder meetings
- Data analyses
- Coordination activities
- Additional activities
Stakeholder Meetings

- Continue the open process outlined at the June 2000 Public Meeting
- Starting today, meetings with stakeholder groups to obtain input
  - Ideas
    - Establish a workgroup under existing NSR, Permits, Toxics Subcommittee to CAAAC, or similar
    - Semi-annual meetings
    - Meetings at stakeholder request
    - Other - ?
- Website still available
Data Analyses

- Further analyze data for the purpose of establishing section 112 standards
  - Floor
  - Best performing
  - Preliminary analyses indicate that mercury content of coal does not necessarily dictate level of mercury emissions
  - Develop tool for use in case-by-case MACT determinations
1999 ICR Data Analyses - Mercury in Fuels
(Initial analyses)

Legend
- 100th percentile
- 99th percentile
- 95th percentile
- 75th percentile
- Mean
- Median
- 25th percentile
- 5th percentile
- 1st percentile
- 0 percentile

Fuel Type
- Bituminous
- South American
- Subbituminous
- Indonesian
- Lignite
- Petroleum coke
- Tires
- Waste anthracite
- Waste bituminous
- Waste subbituminous

No. of analyses
- Bituminous: 27,884
- South American: 270
- Subbituminous: 8,193
- Indonesian: 78
- Lignite: 1,047
- Petroleum coke: 1,149
- Tires: 149
- Waste anthracite: 377
- Waste bituminous: 575
- Waste subbituminous: 53

Hg, lb/trillion Btu
- 27,884
- 270
- 8,193
- 78
- 1,047
- 1,149
- 149
- 377
- 575
- 53
# Existing Controls - Hg Removal

<table>
<thead>
<tr>
<th>Control technology</th>
<th>Bituminous</th>
<th>Subbituminous</th>
<th>Lignite</th>
<th>Waste coals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold-side ESP</td>
<td>46 (18)</td>
<td>14 (18)</td>
<td>1 (3)</td>
<td>NA</td>
</tr>
<tr>
<td>Hot-side ESP</td>
<td>18 (12)</td>
<td>13 (12)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Cold-side FF</td>
<td>83 (9)</td>
<td>72 (6)</td>
<td>NA</td>
<td>99 (6)**</td>
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<tr>
<td>SDA + ESP</td>
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<td>38 (9)</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>SDA + FF</td>
<td>98 (6)</td>
<td>25 (9)</td>
<td>17 (6)</td>
<td>NA</td>
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<tr>
<td>PM scrubber</td>
<td>14 (6)</td>
<td>8 (12)</td>
<td>33 (3)</td>
<td>NA</td>
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<tr>
<td>Cold-side ESP + FGD</td>
<td>81 (3)</td>
<td>35 (9)</td>
<td>37 (6)</td>
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</tr>
<tr>
<td>Hot-side ESP + FGD</td>
<td>55 (3)</td>
<td>33 (15)</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

* Preliminary estimates from ICR data on PC boiler unless otherwise noted. Based on inlet and outlet of last control device. ( ) indicates total number of tests for each category. NA = not available

** FBC unit
Coordination Activities

- Continue coordination with ORD, DOE, EPRI, UNDEERC, et al. on on-going mercury control research
  - More testing on existing control devices and enhancements
  - More testing on SCR/SNCR installations
  - Fly ash issues
  - Control device cost analyses
Additional Activities

- More sophisticated deposition analyses using REMSAD and new mercury emissions data
- Analyses using IPM looking at the costs and market impacts of a variety of potential levels of mercury control
Next Steps

✦ Now we turn to you for your ideas
✦ Final questions
  ◦ Format of stakeholder interaction -- how do you want to be involved in the regulatory development process and who do you want to work with?
  ◦ The end result -- what would you like to see as an outcome of the regulatory development process?