

**Clean Air Act Advisory Committee**  
**Permits/New Source Review/Air Toxics Subcommittee**  
**Utility MACT Working Group**  
**Summary of Working Group Meeting 04/03/02**

The sixth meeting of the working group established under the Clean Air Act Advisory Committee's (CAAAC) Permits/New Source Review/Air Toxics Subcommittee was held on April 3, 2002 at the EPA facility in Research Triangle Park, North Carolina.

Mike Geers and Claudia O'Brien provided a summary of the paper distributed (and placed on the utility MACT website) following the March meetings. This paper documents the legal and technical rationales behind the subcategorization scenarios they had presented at the March meeting of the Working Group. The subcategorization scenarios presented were generally as follows:

- No subcategorization
- Subcategorize by coal type (i.e., bituminous, subbituminous, lignite) plus fluidized bed combustion (FBC) units
- Subcategorize by coal type and by process type (i.e., bituminous coal - hot, saturated, and wet stack; subbituminous; lignite; FBC)

This summary was followed by Working Group discussion. The following points were made during the open discussion:

- Defining the "process type" should not include the control system or preclude any requirements that necessitate changing the existing control system.
  - o One cannot refer only to the boiler – the system is large, integrated, and made up of all the parts.
- Units with different coal types have comparable total mercury emissions so why would one subcategorize by coal type if the data show that a given emission level can be met?
  - o If one cannot put the same control on different units and get the same emission level then the two units are different.
- How do the suggested subcategorization scenarios impact on the non-mercury HAP?
  - o Some of the suggested scenarios would be fairly stringent for the non-mercury HAP (e.g., acid gases).
- Would you subcategorize by the type of boiler...or by the coal type...or both?
  - o The type of coal defines the general type of boiler (e.g., size, shape).
- A sliding scale limit should be considered for mercury based on the mercury content of the coal (i.e., a different percent reduction requirement for high mercury coal vs. low mercury coal similar to the NSPS for sulfur). One could also consider subcategorization scenarios that take into account the chlorine content of the coal.

- o Would this not be a compliance nightmare, having to measure both the mercury and chlorine content of the coal continuously?
- o This could be handled with a yearly average standard, for example.
- If the standard is based such that the fuel choice or source becomes of interest to the regulator (i.e., the utility has to report coal quality and quantity on a unit-by-unit basis), then this scenario becomes an issue from the standpoint of competitiveness of the utility. Current EIA data is at the plant level and is delayed to the extent that this is not an issue (i.e., competitors cannot gain a price advantage given the EIA data).
- Can chlorine be added to the boiler to obtain better mercury removal? If so, then there is no need to subcategorize based on the chlorine content of the coal.
- If a utility were to change coals, and, therefore, subcategories, how would compliance be ensured?
- Subcategorization by coal type is not a good idea.

A brief presentation of the Integrated Planning Model (IPM) was made by EPA. This was followed by presentations by EPA and UARG on suggested subcategorization scenarios for modeling (recognizing that the scenarios presented do not necessarily represent suggestions for actual MACT limits). These presentations are on the utility MACT website. The presentations were followed by Working Group discussion. The following points were made during the open discussion:

- An alternative format standard (i.e., either meet a percent reduction OR a specified stack emission limit) should be considered.
- The impact of the PM and ozone national ambient air quality standards (NAAQS) should be incorporated into the IPM runs given that the court has recently ruled in EPA's favor and these standards can now be implemented.
  - o If cost is a major output of the IPM, then the NAAQS need to be included so as to show that the costs incurred are not all as a result of compliance with any mercury requirements.
  - o Implementation of the NAAQS will take several years and it may not be possible to "guess" how that implementation will take place on a State, utility, or plant basis.
- A "lignite vs. everything else" scenario should be considered.
  - o This can be done with the existing scenarios as the IPM model is linear (i.e., the bituminous and subbituminous results can be added together to provide the same result as modeling the requested scenario separately).
- Use of output-based units would be preferred.
- Don't subcategorize by control device - this would set a bad precedent.
- Provide in the output the impacts on coal-producing regions and States.
- What about the non-mercury HAP?
- The IPM should be able to provide for the addition of a fabric filter unit for use in mercury compliance.

A presentation was made by EPA on the review of those tests that indicated negative mercury removal. This was followed by a brief discussion in which it was pointed out that variability in the results was still important and needs to be accounted for in any standard and that process variability also plays a part in the emissions variability. It was requested that EPA provide a list of ways that variability has been handled in other MACT standards.

Review of action items and discussion of next steps

May 13 was set as the date for the next meeting, which will be an all-day (10:00 a.m. to 4:00 p.m.) meeting at the EPA facilities in Research Triangle Park, North Carolina. The following topics/action items were suggested:

- EPA will proceed with the IPM modeling using the following scenarios:
  - o EPA scenario 1 (no subcategorization)
  - o EPA scenario 2 (subcategorization by coal type) with the following modifications:
    - § Waste coal will be a separate type, yielding four coal types
    - § The “low” subbituminous removal level modeled will be around 30 percent (rather than the 65 percent currently listed)
  - o EPA will look into the feasibility of modeling UARG scenario 3
  - o For all scenarios, EPA will consider modeling allowing the units to choose between one of two formats:
    - § Mercury emission rate (input- or output-based format), or
    - § Percent mercury removal (coal-to-stack)
- EPA will provide a list of ways by which variability has been addressed in other MACT standards.
- EPA will meet with the lead of the “non-mercury HAP” mini-group prior to the next meeting to decide on the best approach to be taken in handling this issue.
- EPA was requested to present suggested floors or next steps for the oil-fired units.

**CLEAN AIR ACT ADVISORY COMMITTEE  
PERMITS/NEW SOURCE REVIEW/AIR TOXICS SUBCOMMITTEE  
UTILITY MACT WORKING GROUP**

**April 3, 2002**

**U.S. Environmental Protection Agency  
109 T.W. Alexander Drive, Room C111  
Research Triangle Park, North Carolina**

**AGENDA**

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|-------------------------|---|
| 9:30 a.m. - 9:45 a.m.   | Introductions and opening remarks by Sally Shaver and John Paul, Co-chairs  |
| 9:45 a.m. - 10:00 a.m.  | Cinergy/Latham & Watkins presentation on subcategorization paper (distributed following March meeting) - Mike Geers |
| 10:00 a.m. - 10:30 a.m. | Working Group discussion of subcategorization paper   |
| 10:30 a.m. - 10:45 a.m. | EPA presentation on Integrated Planning Model (IPM)   |
| 10:45 a.m. - 11:00 a.m. | EPA presentation on proposed scenarios for modeling analyses  |
| 11:15 a.m. - 11:30 a.m. | UARG presentation on scenarios for modeling analyses - Lee Zeugin   |
| 11:30 a.m. - 12:00 p.m. | Working Group discussion of modeling input  |
| 12:00 p.m. - 1:00 p.m.  | Lunch   |
| 1:00 p.m. - 1:30 p.m.   | Working Group review of Ranking Mini Group paper and suggestions (presented at March 4 meeting)                     |
| 1:30 p.m. - 1:45 p.m.   | UARG presentation on CEM variability analyses - Lee Zeugin  |
| 1:45 p.m. - 2:15 p.m.   | EPA presentation on negative removal values   |
| 2:15 p.m. - 3:00 p.m.   | Working Group discussion of negative removal values and statistical paper   |
| 3:00 p.m. - 3:15 p.m.   | Working Group discussion of Non-mercury HAP Mini Group suggestion of surrogate measures for non-mercury HAP         |
| 3:15 p.m. - 3:30 p.m.   | Review of action items and discussion of next steps   |

3:30 p.m.

Adjourn