



REGIONAL AIR POLLUTION CONTROL AGENCY

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May 4, 2004

The Honorable Thomas H. Allen
U. S. House of Representatives
1717 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Allen:

Thank you for your letter of April 29, 2004, in which you asked four specific questions with regard to the Utility MACT Working Group's request for EPA to conduct Integrated Planning Model (IPM) analyses of various options to regulate mercury under section 112 of the Clean Air Act. I will provide specific responses to your four questions, but first wish to briefly comment on the working group effort and the major part that the IPM analysis played in our work.

As you are aware, in August of 2001, EPA formed a utility MACT working group under the Clean Air Act Advisory Committee. EPA asked if I would co-chair the working group, along with Sally Shaver from EPA's Office of Air Quality Planning and Standards. I gladly accepted. This working group was charged by EPA to make recommendations to the agency to maximize the benefits of the Section 112 MACT rule in a flexible framework and at a reasonable cost. This formal group had considerable and varied stakeholder representation with:

- Six Members Representing State/Local/Tribal Agencies
- Eight Members Representing Environmental Organizations
- Fourteen Members Representing Industry
- One Member Representing Control Equipment Vendors
- Two Members Representing Coal Interests, Producers, and Unions

The working group met 14 times over a period of 18 months. EPA has an extensive web site which documents all the working group's meetings, discussions, and presentations at:

<http://www.epa.gov/ttn/atw/combust/utiltox/utoxpg.html>. The working group's final report and recommendations were delivered to EPA in October of 2002.

In all of the 14 separate meetings over 18 months, there was never even a hint that EPA was considering an alternative to the 112 MACT process. The working group was guided by the following principals (all quotations from EPA's December, 2000 regulatory finding):

- *"Regulation of HAP emissions from coal- and oil-fired electric utility steam generating units under section 112 of the CAA is appropriate and necessary."*
- *"Based on the assessment of hazards and risks due to emissions of HAP from electric utility steam generating units, mercury is the HAP of greatest concern."*
- *"With regard to the other HAP, arsenic and a few other metals (e.g., chromium, nickel, cadmium) are of potential concern for carcinogenic effects."*
- *"It is possible that future data collection efforts or analyses may identify other HAP of potential concern."*

In all their deliberations, the working group remained focused on the 112 process. Section 112 calls for a technology determination reflecting the Maximum Achievable Control Technology to be achieved within three years of promulgation, with opportunities for compliance extensions. In addition, Section 112 does not allow for trading of emissions between facilities. In fact, the few times trading was raised during working group meetings, it was quickly dismissed as everyone in the working group recognized that trading was not permitted under Section 112.

Over the 18-month period, the working group members examined the available data on current and projected emissions based on existing controls and stack tests. They heard from researchers who are testing possible control technologies. They identified issues and discussed possible solutions, with each stakeholder group recommending future control levels. EPA modeled the impact of some of the working group's early work (using the IPM), and was preparing to model the working group's final recommendations when EPA abruptly halted the process.

This failure of EPA to produce the promised IPM analysis of the working group stakeholder recommendations has never been explained to working group members. In fact, we have never received any official correspondence from EPA since our last meeting (which was scheduled to review the final IPM analyses) was indefinitely postponed on April 1, 2003. Such abrupt postponement with no follow-up is in sharp contrast to the attention the modeling analysis had received in working group discussions. Several of our meetings had considerable time and discussion devoted to the modeling effort, and we even convened one special workshop devoted to the IPM for working group members (attended by 26 members/alternates). As an indication of the detail that the working group was exploring with respect to the model, listed below are some of the points made by working group members during the open discussion at our June 3, 2002 meeting. This record of discussion points is taken verbatim from EPA's minutes of the meeting.

- *“Does the IPM assume that the control equipment is available when needed and at normal cost (i.e., is enough construction capacity available) [yes]”*
- *“It cannot be assumed that everything will go smooth, everything will be installed on all plants by December 15, 2007”*
- *“The IPM should allow for constraints on the availability of activated carbon, control equipment, etc.”*
- *“Why are years beyond the MACT implementation date included [because decisions made for regulatory programs coming into place in those years would impact MACT decisions as well as residual risk for the MACT]”*
- *“What is the impact of activated carbon use on dispatch decisions”*
- *“Discussions should be continued on the IPM variables, etc. but at the same time, the process should be kept moving forward without waiting for resolution of the issues”*
- *“Can EPA do sensitivity analyses to see if changing the IPM assumptions even makes a difference in the output”*
- *“Which ‘changes’ are more important and should be explored first (some are easier to implement, should that be decided, than others)”*
- *“The loss of ash sales due to activated carbon use should be incorporated into the IPM”*
- *“More fabric filter cases (polishing) need to be incorporated in the IPM”*
- *“A lower mercury control value for ESP use should also be incorporated in the IPM”*
- *“Ranges of assumed values should be used rather than specific values (which would be more difficult to agree upon)”*

In addition, Larry Monroe (Southern Company) summarized a list of suggested changes to the EPA IPM Base Case 2000 mercury modeling assumptions that were discussed at a May 30, 2002 workshop. These suggested changes included revised assumptions related to mercury control and regrouping of model run years. EPA agreed to consider these changes and also to provide the timeframes needed to implement any changes. In a subsequent document (dated June 18, 2002), EPA provided its initial thoughts on possible changes to IPM and estimated time frames to implement changes. These changes were presented and discussed with workgroup members in a June 27, 2002 meeting/teleconference. EPA prepared a document summarizing the June 27

meeting with a discussion of the changes to IPM that EPA planned to consider for use in its MACT analysis. This document is available at EPA's website.

As late as March 28, 2003, working group stakeholders (Clean Energy Group and Cinergy) were still communicating with EPA on recommendations for the IPM analysis, which we fully expected to discuss at our scheduled April 15, 2003 meeting. Cinergy had four specific requests of EPA's modeling efforts:

1. Update the mercury control technology and other assumptions based on past discussions and input from the workgroup.
2. Run the stakeholder positions as they were articulated in the workgroups final report.
3. Complete REMSAD air quality deposition model runs.
4. Provide sufficient technical details to the workgroup members in advance of the meeting.

The Clean Energy Group recommended the following emissions level inputs for the modeling analysis:

PC units/bituminous and subbituminous	1.223 lbs/TBtu
PC units/lignite	9.091 lbs/TBtu
FBC units/bituminous and subbituminous	0.320 lbs/TBtu
FBC units/lignite	11.984 lbs/TBtu

One further note before I respond to your specific questions (with regard to the timeframes of the model runs), the working group in its final report to EPA made the following observations with regard to compliance times:

COMPLIANCE TIME

The issue is the statutorily-defined compliance time and the considerations by which extensions may be granted. This issue received limited discussion during the Working Group process, and it was agreed that the provisions outlined in the CAA for installation of controls and compliance may be triggered.

Summary of Positions on Compliance Time. Stakeholders agree that a utility mercury MACT regulation has the potential to require retrofit controls to be installed at existing generating units. The CAA outlines timeframes in which compliance must be achieved, and includes additional time to install controls when necessary. Implementation of these CAA provisions may be triggered during the utility mercury MACT regulatory process.

I will now address each of your specific questions:

1. Do you agree that EPA cannot conduct IPM analyses of the various options recommended by the Working Group?

No. There are a number of members of the Utility MACT working group that are intimately familiar with the IPM and its restrictions. Given the detailed discussions that working group members were engaged in with EPA staff regarding the modeling effort, I am sure that any obstacles were recognized and plans made to deal with them. At none of our meetings was there any hint that EPA was incapable of modeling the stakeholder recommendations. The fact that discussions were being held regarding the modeling effort in March of 2003, six months after the presentation of the stakeholder recommendations, indicates to me that there were no major obstacles to the modeling analysis.

2. Did EPA inform the Working Group that the Agency was unable to perform the requested analyses?

No. The working group has received no communication from EPA since the abrupt cancellation of our meeting scheduled for April 15, 2003.

3. Is it possible for EPA to analyze control options consistent with the various control options suggested by the Working Group's stakeholders?

Yes. The working group modeling experts and EPA staff were proceeding with that assumption in mind. The early IPM runs conducted by the agency and shared with the working group midway in the process, followed by the detailed meetings held on several occasions indicate that the plan was to conduct the analyses and present the results at the meeting scheduled for April 15, 2003. I find it highly improbable that EPA would suddenly find impossible a task that they had been discussing in detail for a period of over one year.

4. Do you believe that further analysis would be useful in developing a mercury rule that protects public health and the environment?

Yes. The IPM analyses of the working group recommendations would represent the culmination of the 18 months of effort given to the project by the stakeholders. As EPA's website states:

“EPA uses the Integrated Planning Model (IPM) to analyze the projected impact of environmental policies on the electric power sector in the 48 contiguous states and the District of Columbia. Developed by ICF Resources Incorporated and used to support public and private sector clients, IPM is a multi-regional, dynamic, deterministic linear programming model of the U.S. electric power sector. It provides forecasts of least-cost capacity expansion, electricity dispatch, and emission control strategies for meeting energy demand and environmental, transmission, dispatch, and reliability constraints. IPM can be used to evaluate the cost and emissions impacts of proposed policies to limit emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon dioxide (CO₂), and mercury (Hg) from the electric power sector.”

Thank you for your letter and your interest in this very important topic. I trust you will find these answers to your questions sufficient. If you or any member of your staff has any further questions, please let me know.

Sincerely,

A handwritten signature in cursive script that reads "John A. Paul".

John A. Paul, Supervisor
Regional Air Pollution Control Agency
Co-chair Utility MACT Working Group