

MEMORANDUM

TO: Utility MACT Working Group

FROM: Clean Air Task Force
National Wildlife Federation
National Environmental Trust
Environmental Defense
Natural Resource Defense Council

DATE: July 9, 2002

RE: Responses to non-mercury HAP questions raised at June 3, 2002 Working Group Meeting.

This memorandum represents the response of members of the above environmental groups to the issues raised in the June 3, 2002 Working Group meeting regarding data adequacy and use of surrogates for calculating MACT floors for existing facilities for the control of non-mercury hazardous air pollutants. Each of the issues is set forth below along with our response.

- 1) Is a surrogate approach to regulating non-mercury HAPs acceptable?

Yes, but *if and only if* it can be shown that the surrogate measure reflects the actual emissions of the represented pollutants and the surrogate emission rate represents the calculated floor. In addition, in order to make sure that the surrogate is reflecting each individual metal emission rate (or percent reduction, depending on the format of the standard), during an annual compliance test each metal should be measured as well as the surrogate so there are data for a direct comparison. (The surrogate measure itself would of course need to be monitored more frequently.)

- 2) Is a grouped approach to regulating non-mercury HAPs acceptable? If so, how should the non-mercury HAPs be grouped?

The grouped approach is acceptable but only if a) all the HAPs in each group are demonstrated to have similar properties, and b) there are sufficient data for each group to set a regulatory floor.

Grouping non-mercury HAPs which all behave similarly could be an acceptable approach, provided that the HAP groups are based on similar characteristics and behavior. At present we believe the data are sufficient to support a 'non-mercury HAP metals' category and also a 'semi-volatile non-mercury HAP metals' category. For example, selenium and arsenic should be grouped in their own "semi-volatile metals" category because of their similar chemical characteristics and behavior in a combustion system.

In terms of setting a floor for the non-mercury HAP metals, the best performing 12 percent of the 30 power plants tested exhibit average removal efficiency of 99 percent. If a floor were to be set in terms of removal efficiency (rather than as an input or output based emissions rate), then 99 percent removal efficiency could be the floor for the non-mercury HAP metals.

In theory, other groupings of non-Hg HAPs make sense, based on the similar properties within the group. These groupings could include 'Acid Gases', 'Radionuclides,' 'Organics other than dioxins/furans,' and 'Dioxins/Furans.' But in our view, the data available to support the setting of a floor for these additional groupings currently are inadequate (with the exception of acid gases as discussed below). However, we firmly believe that EPA has a legal requirement to regulate all non-mercury HAPs. Therefore, we encourage EPA to actively gather additional data, using its authority under section 114 of the Act or through other means (e.g., State emissions tests data), in order to meet this legal requirement.

Acid gases are a possible exception to the lack of data cited above. At the last MACT advisory committee meeting, there was a discussion of a National Environmental Trust study of acid gas emissions reported to the Toxics Release Inventory (TRI) from power plants with and without sulfur dioxide controls. This study showed that sulfur dioxide controls reduced acid gas emission rates (in pounds per megawatt-hour) by greater than 95 percent (Toxic Power, National Environmental Trust, August 2000, Appendix 2). While the TRI data for controlled and uncontrolled plants were likely calculated from emission factors, there has to have been some underlying data that were used to calculate the emission factors. Neither industry nor EPA representatives were able to identify at the meeting the data these power plants could have used to determine the effectiveness of sulfur dioxide controls on acid gas emissions -- nonetheless these data must exist somewhere. We request that EPA work with EPRI to determine the basis for these emission reduction calculations to see if additional data exist that could be used to form the basis of an 'Acid Gases' subgrouping.

3) Additional questions raised at the June 3, 2002 meeting:

a) How are non-detects handled in the non-Hg HAPs data set we are working with?

We don't know. We've asked EPA that question several times and have not received an answer.

b) How many "sources" are there for which we have non-Hg HAP test data?

There are test data from 30 power plants. In all there are 34 tests because multiple boilers at three power plants were tested.

c) Are the tests we have "representative of the universe of plants"?

There is no requirement in the Act mandating that the data being used to set a MACT floor have this characteristic. The Act requires only that the Administrator set a floor based on the best performing existing sources “for which [she] has emissions information.”

d) If there’s 99% removal, there must be some analytical issues.

Our review of the data set does not indicate that analytical problems account for the high removal measured.

e) What would happen if you calculated the floor for the non-Hg HAP using the top 5 tests from existing units rather than the top 12%?

The statute requires calculating the floor using the top 12%. However, even if you did look at the top 5 tests (which is 1 test more than what the 12% would require), the floor would still represent 99 % removal.

f) Control rates vary by coal type, so data analyses and floor calculations should be done by coal type.

We disagree that subcategorization or floor calculations on the basis of coal type is permissible.

g) Are there health effects that justify a standard for all HAPs?

This question was asked and answered in the EPA’s Regulatory Finding (65 FR 79825; December 20, 2000). Our position is that once EPA listed electric generating units under section 112(c) of the Clean Air Act, it obligated itself to regulating all HAPs.