

**Report of
Data Adequacy Sub-Group
March 5, 2002**

Prior Reports to the Utility MACT Workgroup

The sub-group has, in the past, submitted for consideration by the full workgroup a general review of the EPA database established for developing the mercury MACT. This analysis found that the EPA database, which contains the results of 3 tests each on 80 units, representative of the overall population of coal-fired boilers, demonstrated a test-to-test variability on the average of 30 percent. In addition, a ranking of the data found that 20 of the 80 units showed a negative removal rate, when comparing coal Hg to Hg emissions from the stack. The workgroup requested that the sub-group consider the overall impact of these findings on the ability to establish the top 12 percent of performing units for the purpose of establishing a MACT floor.

Initial Conclusions by Sub-Group

The data adequacy sub-group has reviewed the test results in the EPA database and discussed the data with EPA staff in an attempt to address the issues raised by the workgroup. Following this analysis the sub-group can report to the full workgroup the following conclusions:

- EPA has concluded that the Ontario test procedure utilized to generate the three tests on each of 80 units is adequate for generating baseline information on specific Hg unit emissions.
- The data adequacy sub-group believes that the ranking of all 80 plants based on Hg lb/Tbtu measurement made at the outlet of the last control device (or stack) previously presented to the workgroup is an adequate listing of the top performers with respect to Hg emissions.
- There are remaining questions, however, about the significance of the 20 negative percent mercury removal values, of which 5 were equipped with baghouses and 3 with FGD's--technologies that appear to be efficient in capturing mercury. The reason for the negative results are not apparent to the sub-group, based on its review of the data or discussions with EPA staff. EPA staff have agreed to review the individual test records for the 20 negative removal rate test results, and report back to the full workgroup before the next meeting.

- Percent reduction calculations (either from coal to stack or input to output of last control device) are useful for gaining better information on the performance of one or a combination of control devices. However, due to the greater potential for sampling or analytical errors, the Ontario Hydro method may be the best of three options for determining the performance of a particular unit, even if there is variability in the actual values.
- Given that the limitation of the Ontario Hydro method is that it does not provide a complete picture on potential variability inherent in operating conditions and subsequent mercury emissions, the sub-group believes that these variations can be accounted for when designing the standard (i.e., the form of the standard).

Next Steps

The data adequacy sub-group suggests the following next steps for the workgroup:

- Full workgroup review and discussion of the above conclusions.
- EPA staff should report back to the workgroup no later than its next meeting its analysis of the negative removal rate test results in the EPA database and, specifically, what, if any, impact the negative test results from bag house-equipped units has on the emission rates identified for the top 12 percent of the units identified in the database.
- EPA should also report to the workgroup at its next meeting on methods that the Agency has used in the past to address data variability when establishing a MACT floor.