NACAA
national association of clean air agencies

January 29, 2009

Mr. Peter Tsirigotis
Director, Sector Policies and Programs Division
Office of Air Quality Programs and Standards
U.S. Environmental Protection Agency
Mail Code: D205-01
Research Triangle Park, NC 27711

Dear Peter,

The June, 2007, vacatur of EPA's Boiler Maximum Achievable Control Technology (MACT) rule[1] (40 CFR Part 63, Subpart DDDDD) triggered obligations under section 112(j) of the CAA that require state and local permitting agencies to develop permits for approximately 3,000 Industrial, Commercial and Institutional ("ICI") Boilers on a case-by-case basis. In order to avoid the duplication of effort that would otherwise ensue, the National Association of Clean Air Agencies[2] ("NACAA") undertook to develop a Model MACT 112(j) Permit for use by our members. In the course of this effort, NACAA compiled the most comprehensive data set as of that time concerning the issues relevant to the EPA rule and identified a number of areas where additional data would be useful in developing scientifically credible MACT floors and limits. As part of this process NACAA worked collaboratively with EPA over a period of approximately a year and provided EPA, industry and the public all of the data obtained from permitting authorities ("the NACAA data").

Recently, EPA provided to "stakeholders" information concerning the data it has collected as part of its ICI Boiler MACT rule development activities for which OMB approval was obtained this past summer. EPA indicated to these stakeholders that it was soliciting input on a proposed plan for future testing by January 9, 2009[3]. Given the extensive nature of our involvement in these issues, we are concerned that NACAA was not included in the "stakeholder" group, which apparently was limited to industry representatives and those directly involved in the litigation that led to the vacatur of the Boiler MACT rule.

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[1] See, *Sierra Club v EPA*, 479 F3d 875 (D.C. Cir2007).

[2] NACAA is the professional organization of the state and local air pollution control agencies that are on the front line of this nation's effort to reduce air pollution and the health care costs associated with air pollution.

[3] EPA's note to stakeholders asks for comments by January 9, 2009, but indicates that EPA intends to start its negotiations with OMB during the week of December 29, 2008.

NACAA subsequently acquired a copy of the information provided to this group, including a link to current EPA survey results. The information reviewed raises a number of concerns about the quality of the data that will be used to develop the final rule and whether EPA will ultimately be able to promulgate a final rule in accordance with the schedule negotiated with Earth Justice.

We understand and support the need to move expeditiously to promulgate a MACT standard for this important sector. However, we believe it is more important to properly design the information collection activities at the outset. If this is not done now, EPA will be forced to either delay making a final decision at a later date or make a decision on the basis of an inadequate record. Either eventuality will delay the reduction in emissions of hazardous air pollutants mandated by Congress in 1990 and cause state and local permitting agencies to expend scarce resources to develop case-by-case permits under section 112(j).

THE FUNDAMENTAL ISSUES

<u>At a minimum EPA must have sufficient data to identify the best performing 12 percent of any proposed subcategory.</u>

The primary purpose of the data collection effort should be to establish an emissions profile for the ICI sector (including any subcategories established on a sound technical basis). This profile should be sufficiently robust as to provide for a reasonable identification of the top performing 12 percent of the units within the category and thereby enable a calculation of the average of the top performing 12 percent.

NACAA has questioned whether there are technical, design or operational issues (as opposed to economic issues) that justify EPA's earlier decision to establish subcategories for small[4] and limited use boilers. EPA has not responded to this issue and continues to assume that such subcategories will exist. However, EPA now has two data sets, the NACAA data base and the results of its Phase I survey, which can be examined to determine whether there are technical differences between "small", "limited use" and "large" boilers sufficient to justify creation of these subcategories[5]. EPA has dedicated the majority of the proposed new testing to ensuring that a minimum number of tests have been conducted for each of its proposed subcategories[6]. EPA should examine the existing information to document a reason for its proposed subcategories prior to proposing a test plan that focuses on such subcategories while failing to resolve data deficiencies in the more environmentally significant "large" boiler category.

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[4] There are no units in one such category and only four in another.

[5] Such subcategories, if not based on significant technical differences, would appear to be inconsistent with the Congressional determination of "major" sources subject to regulation under section 112.

[6] While this issue was not pursued rigorously, the NACAA data set did not appear to identify any statistically significant differences in performance between small and large units. If this pattern is confirmed by a more careful review of the existing data, the additional testing proposed by EPA would likely only confirm the earlier results and would seem to be unnecessary.

For several of its proposed subcategories, it appears that EPA's data collection activity is not geared toward determining the ***average of the top performing 12 percent*** but the ***mean*** of the category, where the sample size to determine the mean is set at a number that is not less than 12 percent of the number of units in the subcategory. If EPA gathers data based on the mean of the category and then relies on the "for which it has information" language in the statute, it will effectively set the MACT limit at the 50th percentile of performance rather than the 94th percentile as intended by Congress.

Specifically, we recommend the following additional data collection activities:

1. the carbon monoxide (CO) emissions profile of large coal fired boilers (as well as any other proposed subcategory for which there is currently insufficient information) should be developed in a way that will enable rigorous identification of the best performing 12 percent;[7]
2. data to establish a correlation between CO emissions and organic HAP emissions by reference testing should be pursued;
3. data concerning the nitrogen oxide (NO_x) and CO performance of well-operated facilities with second-generation low-NO_x burners should be obtained and evaluated[8];
4. data to determine how to treat sources combusting a mix of fuels should be obtained and evaluated;
5. the absence of mercury emission data and paucity of hydrogen chloride (HCl) emissions information from oil burning boilers should be remedied by reference method testing;[9] and
6. potential differences in performance between sources burning wet wood and dry wood and between sources combusting #2 oil and #6 oil should be examined.

<u>EPA must acquire sufficient information on the variability of the emissions performance of the best performing units – consistent with the proposed enforcement provisions – to set meaningful emission limits.</u>

NACAA also identified a relative shortage of data on variability in performance of an individual unit. This factor is more relevant in establishing a MACT standard than the variability between units which Congress accounted for in its "average of the top 12 percent" requirement.

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[7] While the NACAA data set and the EPA survey each include over one hundred data points on CO emissions from gas and oil-fired units, these sources include only 10 and 27 data points, respectively, on CO emissions from coal-fired units. This information is insufficient to support a statistically valid identification of the best performing 12 percent of the category and a rigorous estimate of the variability of the emissions performance of the best performing units.

[8] Some have suggested that there may be an inherent trade-off between NO_x and CO emissions.

[9] The NACAA data set and the EPA survey response each contain no usable data on mercury emissions and statistically insignificant information on HCl emissions from oil-fired units. EPA proposes testing only a total of eight oil-burning facilities (with controls) for mercury and HCl. Here, the sample size is inadequate to identify the top performing 12 percent. EPA should not at this stage repeat its earlier approach, rejected by the Court, of considering emissions only from units with controls.

More importantly, as employed by EPA in its prior rulemaking process, the determination of "variability" dominated the standard-setting process and rendered the average of the top 12 percent meaningless. Indeed, in the course of manipulating the relatively sparse data it had, EPA concluded in its prior rulemaking that it should multiply the "average of the top 12 percent" by factors of up to 181 (18,100 percent) and thereby set no meaningful limit. The reference test procedures adopted by EPA and states over the years incorporate averaging procedures to minimize the effect of short-term variability on the outcome.

Any determination of variability by EPA should reflect the averaging period and other conditions of the method that will be used to enforce the standard. In this regard, EPA's apparent intent to use fuel sampling data is of particular concern, since a single "grab" sample may represent only a small fraction of a second of operation of the unit. In contrast, the reference method used to enforce the limitation typically averages emission performance over a three-hour period. EPA methods to evaluate variability should be consistent with procedures historically employed by EPA in analogous circumstances, such as those employed by EPA in establishing NSPS standards based on reference method test data from well-performing units. We also note that during the ICCR process protocols for evaluating such information were developed by the stakeholder group; such protocols should be revisited for their applicability to this rulemaking.

EPA has proposed no replicate testing of well-controlled facilities to determine test-to-test variability of a given facility. Instead, EPA has disaggregated reference test results into individual run results, which is legally and scientifically irrelevant and can only make the variability appear larger than it is. EPA has also asked sources to provide CEM data – but in an odd form. Where a 30 day average is the regulatory limit; rather than asking for all data within a given time period, EPA has asked sources to provide data from the highest day of each month in a year. We can discern no technically justifiable support for such information.

NACAA's data set included less than 10 facilities for which replicate testing had occurred and a number of those facilities were not within the best performing 12 percent.[10] EPA's data collection activities should incorporate no less than three to five replicate tests[11] of a statistically meaningful number of units within the best performing 12 percent of each intended subcategory.

<u>EPA Should Establish a Separate Subcategory for Process Heaters and Collect the Data Necessary to Determine the Standard</u>

While the source category covers both boilers and process heaters, the latter are very different from boilers, both in their operations and their emissions. Accordingly, NACAA recommends that EPA establish a separate subcategory for process heaters. To that end,

[10] One can argue that variability will be greater in well-controlled units. One can also argue that it will be less. For this reason, we recommended additional investigation into this area.

[11] Indeed, 10 - 20 replicate tests of a statistically significant number of the best performing units would be preferable.

NACAA urges EPA to collect substantial data in order to calculate the appropriate MACT standard for the process heater subcategory.

EPA Should Engage in a Second Round of Information Gathering Focused on the Best Performing 12 Percent before Committing to a Final Test Program

In its initial information gathering effort EPA generally asked sources to provide the most recent test information, which is likely to be adequate to identify the best performing 12 percent of sources where there are a sufficient number of sources that have been tested at least once. In this comment, NACAA has used the phrase "EPA data collection activities" to reflect the fact that many of the issues we have raised likely do not require additional testing. NACAA and the regulated community share a common interest in not requiring additional testing[12]. Here, for example, if EPA were to identify the best performing gas and oil-fired units for CO and ask the operators of those sources to provide all CO test results for the designated units, sufficient replicate testing may be identified so that no new tests would be required. Similarly, EPA may seek specific information from the detailed test reports for the best performing units in the NACAA data set and the EPA survey results to evaluate the wet wood, #6 oil, low-NO_x burner and other issues we raise. EPA should also request large blocks of CEM data from well-performing facilities, which can be provided at almost no cost, to assist in evaluating partial load and startup issues that are likely to arise in developing a final standard.

This is not to suggest that emissions testing should be delayed until these analyses are completed. Rather, we believe that OMB should approve a tiered test program as we have suggested where there are four phases; each of which can overlap in time:

Phase 1 – Obtain information through data requests to the entire sector sufficient to characterize the top performing 12 percent of each proposed subcategory[13].

Phase 2 – Where there is insufficient information available to identify the top performing 12 percent, conduct testing to remedy the data deficiency[14].

Phase 3 – Obtain sufficient information through data requests to the identified top-performing 12 percent to evaluate variability and other issues (identified above) that can be anticipated for final rulemaking.

[12] In addition to the obvious cost issues, NACAA believes that pre-existing test results are inherently more credible than testing conducted with an eye toward the anticipated use of the data.

[13] This phase is complete. We recognize that where there are fewer than 30 sources in a subcategory the MACT floor is based on the five best-performing sources.

[14] This would include additional CO testing for large coal-fired units, mercury and HCl testing for oil-fired units and sufficient testing to properly characterize any additional subcategories under consideration.

Phase 4 - Where there is insufficient information available to evaluate variability and other issues (identified above) that can be anticipated for final rulemaking, conduct testing to remedy the data deficiency.

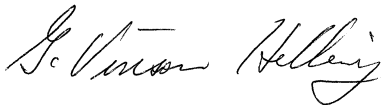
We know at this time that several data deficiencies exist and so testing to address these deficiencies should be approved and commenced immediately. Note that this proposed structure minimizes the paperwork burden on the sector, since follow-on information gathering is limited to a small subset of the sector. Given the overall time constraint, Paperwork Reduction Act concerns may best be addressed if the EPA test plan sets out the technical basis for the type of information needed to address the issues that will arise in rulemaking and OMB and the regulated community are satisfied that both the NACAA data set and the EPA survey results will be carefully evaluated and any additional existing data will be obtained and used before any new tests are ordered.

<u>EPA Should Not Allow Sources to Include Emissions Data That Do Not Reflect Normal Operation of the Unit.</u>

Ordinarily, if a source experiences a malfunction during a reference test, a retest will be ordered. Thus, consistent with our earlier comment, such data does not reflect the enforcement of the rule. However, instead of instructing sources to exclude data where there was an upset or malfunction that would be excused under a proposed NSPS-style "startup, shutdown, malfunction" exemption, EPA simply asked the sources if there were any upsets or malfunctions **"that they would like to identify."** If a source that wants MACT limits to be as lenient as possible submits a test result where there was a malfunction, the honest and straightforward response to EPA's query about the result is "No, I do not have a malfunction that I want to identify." EPA should correct this potential source of error by directing sources to notify them if any data submitted in response to its initial inquiry included periods of malfunction of the unit or the associated pollution control device.

Thank you for the opportunity to comment on this matter. We continue to appreciate the professional and courteous manner in which you and your staff approach potentially contentious issues and look forward to working with you in developing sufficient information to support a technically sound and environmentally protective standard for ICI Boilers.

Sincerely,



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