



Representing the Interests of America's Industrial Energy Users since 1978

April 23, 2008

S. William Becker
Executive Director
National Association of Clean Air Agencies (NACAA)
444 North Capitol Street, N.W. Suite 307
Washington, D.C. 20001

Re: Comments of the Council of Industrial Boiler Owners on the NACAA Boiler MACT Model Rule Data Summary for Industrial Boiler CO and PM limits

Dear Mr. Becker,

The Council of Industrial Boiler Owners (CIBO) appreciates your willingness to provide an opportunity for our members to review and comment on preliminary charts assumed to be based on data made available to NACAA by member state and local agencies in response to NACAA's request. However, it is not possible for CIBO members to constructively comment in detail on the chart representations and percentile overlays.

As you are well aware, emissions from fuel combustion are highly variable and extremely dependent on many individual site-specific and unit-specific factors that influence the combustion process and flue gas composition. Simply looking at data points supposedly representing emission rates and applying percentile values ignores the underlying basis for those emission results and will likely lead to misleading conclusions that are not consistent with the MACT Floor determination process.

The following key points were raised by CIBO members relative to the charts and the process being pursued by NACAA compared to our understanding of the MACT determination process:

1. Every emission data point used for existing and new MACT Floor determination must be fully evaluated as to its representativeness for some subset or subcategory of sources and its relevance to achievability of a resulting emission limit. In order to do that evaluation, full information is required regarding the combustion unit design, emission control devices in use, fuel(s), operation, condition, etc. It is imperative that a detailed understanding of the representativeness of the emissions data points for all types of boilers, fuels, and emissions control equipment be developed. This would provide assurance that the full range of equipment and fuel are represented within the

Council Of Industrial Boiler Owners
6035 Burke Centre Parkway, Suite 360, Burke, VA 22015-3757 • Phone: 703-250-9042 Fax: 703-239-9042
E-Mail: cibo@cibo.org

data used to establish a MACT Floor and that subcategories of sources and their limits are appropriately considered and defined. It is important that a technical justification to address inherent variability in the emissions data as well as in the affected source universe be identified and supported before any emission limits are suggested.

2. In addition, information is needed as to the method of determination of the reported emission rate, i.e., whether it was determined using EPA Reference Method testing, CEM, or other method, and the time period the rate was based upon as well as operating conditions during the test. Examples of potential variations are: a one hour Reference Method test vs. 30 day rolling average CEM data; use of emission factors vs. actual testing; constant maximum load operation vs. cycling load to meet plant demands; single consistent fuel firing vs. variable fuel quantities or qualities.
3. Fuel types and qualities being fired during the tests when emission rates are determined are of critical importance when analyzing the validity and applicability of emissions data. Fuel quality is an inherent determinant of emission rates. While ash content of a fuel obviously impacts particulate emissions to some extent depending on the installed emissions control devices, moisture in a solid fuel can also impact PM emissions and even more importantly, it impacts CO emissions. Under the EPA-promulgated Subpart DDDDD rule, the solid, liquid, gaseous fuels subcategorization accounted for and supported alternative fuel and multiple fuel firing. It is not clear how the full range of fuel types (e.g., differing coals, oils, liquids, gases, wood, bio-based fuels) are represented in the NACAA data set. No individual fuel or type of firing equipment should be foreclosed from use because it is not represented within the data set. The use of such an apparently limited data set for representing such a broad range of fuels and units is inappropriate without data that reflects multiple fuels and alternative fuel firing.
4. Considering the simplified categories of boilers represented in the charts, CIBO suspects a potential lack of understanding of the extreme diversity of the Industrial, Commercial and Institutional (ICI) sectors' boiler populations and how that diversity impacts the level of emissions that can be achieved, both under controlled emissions testing conditions and under normal operation in response to plant demands. We recommend for your review a May 2005 document prepared by EEA ([Characterization of the U.S. Industrial/Commercial Boiler Population](#)) that provides updated information on those boiler populations using various data sources including the EPA boiler database. It is available at the following web site: www.eea-inc.com Recognize, however, that the report only focuses on the industrial and commercial boiler sectors so it may not include all units. In addition, while it covers the full inventory within those sectors, only a subset of those boilers are actually located at major HAP sites and, therefore, will be subject to EPA's in progress re-development and future re-release of Subpart DDDDD requirements.
5. What is provided only appears to present data for boilers and not process heaters. The EPA-promulgated Subpart DDDDD was applicable to boilers and process heaters.

While there is a high level of variability among boilers as noted above, there may be an even greater variability among process heaters because in many cases they are designed for specific applications. Fuels used in process heaters can be significantly different than boilers as well due to combustion of process byproduct gases.

6. While individual data points represented in the graphical data may be derived from reported data, we question whether the distribution of data points actually obtained and used in this manner by NACAA are representative of the affected ICI boiler population as a whole. For example, if data from California or Texas were not available or included, it would likely skew resulting data significantly since those states have implemented stringent NO_x limitations in order to address ozone NAAQS nonattainment issues. CA implemented a carbon monoxide (CO) Permit Requirement of 200 PPM for low NO_x boilers, in recognition of the inherent tradeoff in most boilers with lower excess air and FGR conditions required for low NO_x operation that tend to increase CO emissions. There are also likely more natural gas fired boilers in CA alone than the total 130 or so represented in the chart. Furthermore, given the limited information provided, any interpretations of the emissions variability presented by such a limited sampling of the boiler population used to provide a basis for enforceable emissions limitations on the diverse universe of ICI boilers is inappropriate.
7. EPA utilized the concept of surrogates in Subpart DDDDD as a means to ensure appropriate levels of HAP emissions. For example, PM and TSM were surrogates for non-mercury metal HAPs and CO was a surrogate for organic HAPs. The use of surrogates was well developed and proved useful in prior rules. CIBO supports that concept, but the approach used in the NACAA data presentation appears to pursue low CO emission rate limits for the sake of low numbers with no consideration of the purpose for using a surrogate. CO is not a listed HAP and it should not be treated as such. Low organic HAP emissions are achieved at CO emission rates that vary considerably depending on combustion equipment and fuel types and quality. The inherent variability due to combustion equipment type and operation and fuel type and quality must be addressed when establishing MACT Floors.
8. CIBO is concerned that the NACAA approach disregards the emission reductions taken by sources to comply with the EPA-promulgated Subpart DDDDD. Many facilities have added baghouses or otherwise modified combustion units, emissions controls, or fuels to meet the EPA-promulgated Subpart DDDDD PM limit of 0.07 lb/MMBtu. Some of these units have been operating since early in 2007. If reported data points represent data collected from these newly controlled units, they could be showing a lower average emission rate and thereby be used in calculating an inappropriately lower emission limit. CIBO believes it is important to understand when the emissions data was generated and the details of the combustion unit and the emission control devices to assess implications on the overall affected source boiler population.

CIBO believes that NACAA should not move forward with the development of a broad model rule which could be incorrectly perceived as being based on complete, representative data reflecting overall achievable emission limits. The above considerations need to be addressed and CIBO believes the data survey that USEPA will conduct¹ is the appropriate vehicle to obtain the comprehensive information to accomplish most of those considerations. CIBO is dedicated to continuing its support of the essential broader efforts of the EPA data survey.

CIBO also believes it is not *necessary* for NACAA to move forward with a model rule. Considering the diversity of the ICI boiler sector and the current lack of additional representative information beyond that used for setting the original Subpart DDDDD Boiler MACT standards, CIBO believes most facilities and states would simply rely on the final promulgated Subpart DDDDD provisions as the base for any potential 112(j) state case-by-case activity if that is deemed to be appropriate by individual states or local agencies.

CIBO would like to continue to work with NACAA to assist it in further understanding of the ICI boiler population, the fuels utilized, and their operations.

Please contact me with any questions.

Sincerely yours,



Robert D. Bessette, President
CIBO

¹ U.S. EPA's pending Section 114 Information Collection Request (ICR) to collect best available information from sources subject to the revised Boiler and Process Heater MACT Rule and modified CISWI rule.