

Position Paper on Boiler MACT Regulations

Background:

Although most boilers already are well controlled for key pollutants, EPA is in the process of reissuing the Boiler MACT¹ rules to require 99% of boilers to do much more. We anticipate that solid fuel-fired boilers (like those that burn coal) will be heavily impacted. But even boilers using relatively clean fuels like biomass, hydrogen, clean process gas or other gaseous fuels will be subject to ultra-low emission levels which will be extremely expensive to meet if they can be met at all.

The Boiler MACT sets emission limits for hazardous air pollutants. On June 4th, EPA proposed new rules for industrial, commercial and institutional boilers using fossil fuels and biomass to address concerns raised about the original rule in recent court decisions. EPA is under a court order to finalize the Boiler MACT rules by February 21, 2011.

The Boiler MACT rules would require installation of up to four different air pollution control devices that will conflict with other existing control requirements. Due to the methodology EPA is using, the Boiler MACT emission limits would be extremely stringent, often approaching levels that can barely be detected.

During this current economic crisis, these rules would impose an unsustainable regulatory burden if finalized as proposed. The capital cost for all manufacturing could be \$21 billion, plus billions more in annual costs and no other country in the world as a set of standard as stringent jeopardizing our global competitiveness. A wide range of manufacturers and the jobs they sustain would be severely harmed, as well as municipalities, universities, hospitals, federal facilities and others.

Possible Solutions At Hand:

EPA can use newly submitted and existing data to revise its proposed rules to protect air quality and target investments strategically, preventing severe job losses and tens of billions of dollars in unnecessary regulatory costs.

EPA should set standards based on what real-world sources actually can achieve. Instead, EPA is proposing a pollutant-by-pollutant approach based on the best performers for each of five separate pollutants. This results in a set of standards based on a

¹ The "Boiler MACT" is a rulemaking under the Clean Air Act Amendments of 1990. The statute requires that EPA regulate hazardous air pollutants from emission sources, including boilers, using maximum achievable control technology ("MACT"). Boilers use various fuels at industrial, commercial and institutional facilities to generate steam, heat, and/or electricity to power manufacturing. In addition to Boiler MACT, EPA is finalizing three related rules: Boiler GACT (Generally Achievable Control Technology for boilers at smaller sites); the Commercial and Industrial Solid Waste Incinerator (CISWI) rule (setting limits for non-hazardous solid waste incinerators); and the definition of Non-Hazardous Secondary Materials (a Resource Conservation Recovery Act rule determining which materials are wastes and thus covered under the CISWI rule when burned).

hypothetical boiler that can somehow simultaneously achieve the greatest reductions for each separate pollutant. This is like mandating a best-performing car that simultaneously is the best in fuel efficiency, passenger capacity, acceleration, towing capacity and safety. Some facilities that have recently upgraded their boilers or built new ones with the latest technology do not meet the proposed standards. Under the statute, 12% of boilers should be able to meet the standards with little or no additional effort, but under the proposed rule, less than 1% can comply without further controls. The tremendous diversity of boiler types, fuels used, operating conditions and products made justify “source-based” floor setting.

EPA should provide alternative health-based emissions limitations for qualifying low-level emissions. A practical, health oriented standard for threshold pollutants like hydrogen chloride and manganese would allow sources to demonstrate that their emissions of these compounds do not pose a public health concern. Section 112(d)(4) of the Clean Air Act expressly contemplates the use of such a standard, which can be implemented at each facility without compromising public health protection. EPA has argued that reductions of other pollutants not covered by the MACT program (“co-benefits”) justify not using this authority, but that is contrary to the law. EPA should not add unnecessary stringency to the rule in a misguided effort to control non-HAP emissions that are better regulated under other parts of the Clean Air Act. EPA should make the health threshold standard an integral part of its final rule.

EPA should expand the use of work practice standards to all gas-fired boilers. EPA appropriately used its authority under 112(h) to set work practices for natural gas fired boilers. These units are very clean burning, indeed they are so low that the emissions are extremely difficult and uneconomical to measure. It is critical to both preserve the proposed work practice and to expand the universe of gas fired boilers covered by work practices to other clean burning gases. EPA could avoid the increase in emissions (e.g., NO_x and CO₂) and energy use that would result from the numerous control technologies required with no guarantee of actually achieving the emission limits.

In the related rule defining “Non-Hazardous Secondary Materials,” EPA should reaffirm that many secondary materials including biomass residuals are fuels and not wastes. The statute and related case law allow EPA to classify these materials as fuels if they are not discarded, are treated as valuable commodities, and are burned for energy recovery. Failure to encourage these alternative and often renewable fuels will result in more materials being landfilled and increase use of fossil fuels.

EPA should use representative data in setting the standards and should factor into the MACT the variability in operations, fuels, designs and testing performance across the many types of boilers. There is insufficient latitude for variability among the extremely diverse universe of units and fuels used. Boilers burning significant amounts of biomass with coal and other solid fuels are inappropriately treated as coal boilers for pollutants that are combustion by-products. EPA has a large amount of data from recent testing and data requests as well as that submitted during the comment period to supplement its record of the last 15 years. They should examine these data using different analytical methods to derive defensible limits that are achievable in actual

operation for both existing and new units. To do otherwise leaves many companies in a position where the only way they can comply with the regulation is to stop operating.

EPA should base the standards on the emissions of the best performing 12% of sources, rather than the “best of the best.” In its Phase II emissions testing program, EPA targeted only those sources that were the best performers. Then when EPA went to select the top 12% for setting the MACT floors, it assumed that this data set was representative of the full range of operations. In other words, EPA cherry picked the data and based the standards on the “best of the best” rather than the 12% best performing sources in the entire source category. The result is arbitrary because it is based on a skewed data set that by design is not representative of the full range of sources in the source category. Proposed emission limits are close to the detection limit of test methods and far beyond what normal best performing units can achieve. In fact, pollution control vendors and manufacturers of new boilers are questioning whether the limits are achievable. Thus, EPA is setting the stage for an over-reaching regulation that is legally vulnerable for ignoring the practical capabilities of combustion units and controls.

In the related “Boiler GACT” rule for smaller boilers, EPA should set work practices, not emissions limits, for area source biomass, coal and oil boilers. EPA has the discretion either not to regulate CO emissions from biomass and oil fired boilers at smaller facilities OR to choose to set a work practice standard based on section 112(d)(5). The database EPA relies on for the GACT standards is so poor that the limits end up being even more stringent than those for major sources. In addition, EPA has not shown that emissions of polycyclic organic matter (POM)² from biomass or oil combustion is part of the 90% of sources identified in the urban air toxics program as needing reductions.

Summary:

1. EPA should set limits based on the overall performance of actual sources, not on a hypothetical boiler that does not exist in the real world.
2. EPA should include a health threshold standard in the final Boiler MACT rule to target environmental investments where there is a real need.
3. EPA should finalize work practice standards for natural gas and refinery gas and expand their use to all gas-fired boilers and emission controls.
4. EPA should narrowly define solid waste in the related rule on the definition of Non-Hazardous Secondary Materials.
5. EPA should set standards that reflect the variability in the operations of true best performing boilers due to fuels, operations, designs and testing differences.
6. EPA should base the standards on the best performing 12% of sources, rather than the “best of the best.”
7. EPA should establish work practices for smaller biomass, coal and oil fired boilers in the related Boiler GACT rule.

² CO is the surrogate for POM.