

The Honorable Lisa Jackson  
Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Dear Administrator Jackson:

Enclosed for your consideration is the Report of the Small Business Advocacy Review Panel (SBAR Panel or Panel) convened for two of EPA's planned proposed rulemakings entitled "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters" (Boiler MACT) and "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (Boiler Area Source Rule). The rulemakings are being developed by the U.S. Environmental Protection Agency (EPA) under the section 112 of the Clean Air Act (CAA). The proposed rules are going through the regulation development process concurrently.

### **THE BOILER MACT AND BOILER AREA SOURCE RULE**

Section 112 of the CAA requires EPA to list categories and subcategories of major sources and area sources of hazardous air pollutants (HAP) and to establish standards for the listed source categories and subcategories. Industrial boilers, commercial and institutional boilers, and process heaters were listed as a major source for regulation.

Under CAA section 112(k) (Urban Strategy/Area Source Program), EPA is to identify and list area source categories accounting for 90 percent of the emissions of each of 30 urban HAP emitted from area sources. As part of the Strategy, EPA listed industrial boilers and commercial/institutional boilers as two of the area source categories for regulation. The standards can be based on either maximum achievable control technology (MACT) or, at the discretion of the Administrator, generally available control technology (GACT).

In addition, both area source industrial boilers and commercial/institutional boilers are on the list of section 112(c)(6) source categories, which requires that the listed categories be subject to MACT regulation. These categories are on the 112(c)(6) list because of emissions of mercury and polycyclic organic matter (POM).

A NESHAP (Boiler MACT) was promulgated on September 13, 2004 for industrial boilers, commercial and institutional boilers, and process heaters. Petitions for judicial review were filed on the promulgated Boiler MACT. The Boiler MACT was vacated by the D.C. Circuit Court of Appeals on June 8, 2007. The court remanded the NESHAP to EPA, requiring the Agency to revise the Boiler MACT and the associated MACT floors. In the same decision, the court also vacated and remanded EPA's Commercial Industrial Solid Waste Incinerator (CISWI) definitions rule, in which the Agency had defined "commercial and industrial solid

waste” to exclude materials combusted in units for energy recovery. The court held that the plain meaning of the statute required EPA to regulate under section 129 of the CAA “any” unit which combusts “any” solid waste material. Under section 129, “solid waste” is to have the meaning established by the Administrator under the Solid Waste Disposal Act. Therefore, combustion units that combust any solid waste will be subject to emissions standards under section 129. Combustion units that do not combust any solid waste will be subject to emissions standards under section 112.

## **DESCRIPTION OF THE RULE AND ITS SCOPE**

The industrial boilers source category includes boilers used in manufacturing, processing, mining, and refining or any other industry. The commercial/institutional boilers source category includes boilers used in commercial establishments (stores/malls, laundries, apartments, restaurants), medical centers (hospitals, clinics, nursing homes), educational and religious facilities (schools, universities, churches), hotels/motels, and municipal buildings (courthouses, prisons).

The vacated Boiler MACT affected industrial boilers, institutional and commercial boilers, and process heaters located at major source facilities. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat boilers are excluded from the definition of boiler.

The vacated Boiler MACT reflected the application of the maximum achievable control technology. Pollutants of interest are all hazardous air pollutants (HAP), but mainly metals, acid gases, mercury, and organic HAP. Hydrogen chloride (HCl) was the predominant HAP emitted from boilers/process heaters, and HCl was used as a surrogate for all acid gases. Boilers/process heaters also emit metals (mostly arsenic, cadmium, chromium, mercury, manganese, nickel, and lead). The vacated Boiler MACT used particulate matter (PM) as a surrogate for metal emissions. Boilers/process heaters emit organic HAP emissions (mostly formaldehyde, benzene, and acetaldehyde). Carbon monoxide (CO) was used as a surrogate for organic HAP emissions.

In developing the Boiler MACT, it is estimated that there are 2,414 major source facilities with about 11,500 boilers/process heaters. Approximately 158 (or 7 percent) of these facilities are reported to be small entities.

As for boiler area sources, there are estimated to be over one million boilers located at industrial, commercial, and institutional area source facilities. The vast majority of area source boilers are estimated to be located at commercial and institutional facilities, and, thus, generally owned or operated by small entities. Natural gas is the principal fuel type used by commercial and institutional boilers, but many do combust wood, coal, or other non-fossil and biomass fuels (e.g., fish oil, landfill gas, and agricultural residues). Pollutants of interest are all HAP, but mainly, metals, mercury, and organic HAP. Industrial boilers and commercial/institutional boilers are on the 112(c)(6) list due to their emissions of mercury and POM.

## **PANEL BACKGROUND**

On January 22, 2009, EPA's Small Business Advocacy Chairperson convened this Panel under section 609(b) of the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA). In addition to its chairperson, the Panel consists of the Director of the Sector Polices and Programs Division within the EPA Office of Air and Radiation, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget (OMB), and the Acting Chief Counsel for Advocacy of the Small Business Administration (SBA). It is important to note that the Panel's findings and discussion are based on the information available at the time this report was drafted. EPA is continuing to conduct analyses relevant to the proposed rules, and additional information may be developed or obtained during this process as well as from public comment on the proposed rules. The options the Panel identified for reducing the rules' economic impact on small entities will require further analysis and/or data collection to ensure that the options are practicable, enforceable, protective of public health, environmentally sound and consistent with CAA.

## **SUMMARY OF SMALL ENTITY OUTREACH**

Before beginning the formal SBAR Panel process, EPA actively engaged in outreach with entities that would potentially be affected by the upcoming rulemaking. EPA held phone conferences with some of these companies, and also had conference calls with an ad-hoc coalition of small entities to discuss the proposed rulemaking and to provide these contacts with an early opportunity to ask questions and discuss their concerns with the upcoming rulemaking. EPA provided each small entity representative (SER) with general information on the SBAR Panel process and background information on the Boiler MACT and the Boiler Area Source rulemaking process. Once the SBAR Panel process began and SERs were identified, EPA held outreach meetings with the SERs as described below.

On November 13, 2008 EPA held a two-hour meeting with SERs for this SBAR Panel and invited representatives from the SBA and OMB to the meeting. To help them prepare for the meeting/teleconference, on October 30, 2008, EPA sent materials to each of the SERs via email. The Outreach Meeting was held to solicit feedback from the SERs on the upcoming rulemaking. EPA asked that the SERs provide feedback on the outreach packet they received as well as the outreach meeting itself by November 26, 2008.

The SBAR Panel convened on January 22, 2009. The Panel held a formal outreach meeting/teleconference with SERs on February 10, 2009. To help the SERs prepare for the meeting/teleconference, on January 29, 2009, the Panel sent materials to each of the SERs via email. The Outreach Meeting was held to solicit feedback from the SERs on their suggestions for the upcoming rulemakings. The main areas for comment received in the previous outreach meeting covered the following topics:

- Subcategorization of units
- Health-Based Compliance Alternatives
- Emission Averaging

EPA asked the Panel Members to elaborate on specific information needed from the SERs that will help inform their report to the Administrator. The Panel summarized the following needs:

1. Specific ideas for making compliance with both the major source boilers and process heaters rule and the area source rule more flexible to small entities. Ideas emphasized to date have included:
  - a. Health-based Compliance Alternatives
  - b. Increased subcategorization (considering unit design, fuels, operations)
  - c. Energy Audits, and how they can be made most effective
2. Emission variability issues to the extent there is data to support the variability of emissions across a certain subcategory, and/or intra-unit variability.

The Agency requested written comments by February 24, 2009. EPA shared the small entities' written comments with the Panel as part of the Panel convening document. See section 8 of the Panel Report for a complete discussion of SER comments. Their full written comments are also attached. In light of these comments, the Panel considered the regulatory flexibility issues specified by RFA/SBREFA and developed the findings and discussion summarized below.

## **PANEL FINDINGS AND DISCUSSION**

Under section 609(b) of the RFA, the Panel is to report its findings related to these four items:

- 1) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.
- 2) A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.
- 3) Identification, to the extent practicable, of all relevant federal rules which may duplicate, overlap or conflict with the proposed rule.
- 4) A description of any significant alternatives to the planned proposed rule which would minimize any significant economic impact of the proposed rule on small entities consistent with the stated objectives of the authorizing statute.

The Panel's most significant findings and discussion with respect to each of these items are summarized below. To read the full discussion of the Panel findings and recommendations, see section 9 of the Panel Report.

## **A. Number and Types of Entities Affected**

The Boiler Area Source rule consists primarily of institutional and commercial facilities, such as, schools, churches, and hotels/motels. For the Boiler MACT, the small entities are primarily industrial facilities, such as, lumber mills and municipal boilers. For a complete description and estimate of the type and number of small entities to which the proposed rules will apply, see section 5 of the full Panel Report for a complete listing of the affected industry types and the Small Business Administration definitions. Though the SBAR Panel did not receive specific comments on the number and types of entities that may be affected by the two rulemakings, the Panel believes that the SERs are in agreement with EPA on this matter.

## **B. Potential Reporting, Recordkeeping, and Compliance Requirements**

In general, state agencies will enforce both the Boiler MACT and the Boiler Area Source rules, owing to CAA section 112(l), which directs the EPA Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Title V of the CAA requires that a State's permit programs ensure compliance with all requirements established under section 112 applicable to major sources and area sources. Section 502(a) of the CAA, however, provides that the Administrator may exempt an area source category (in whole or in part) from title V if the Administrator determines that compliance with title V requirements is impracticable, infeasible, or unnecessarily burdensome on an area source category. Therefore, if the Boiler Area Source rule exempts sources from the need to obtain a title V permit, it is unclear whether state agencies will implement and enforce the rule. Regardless of whether a rule is delegated, EPA retains enforcement authority for section 112 rules.

The General Provisions, subpart A of 40 CRF part 63, list the requirements for recordkeeping and reporting to ensure compliance with, and effective enforcement of rules established under section 112 of the CAA. As part of any rulemaking, these requirements are evaluated to determine the minimum recordkeeping and reporting necessary to ensure compliance with and enforcement of the proposed rules. The Panel recommends that EPA minimize the potential burden of compliance on small entities. Specifically, with respect to sources at area sources, the Panel recommends EPA consider an exemption from title V permitting requirements, reduced monitoring requirements, and less frequent reporting.

## **C. Related Federal Rules**

The Panel is aware of the requirements of section 112 of the CAA that direct EPA to establish national emission standards for hazardous air pollutants for both major and area sources. Section 112 requires the regulations to reflect the maximum degree of reductions in emissions that is achievable taking into consideration the cost of achieving emission reductions, any non-air quality health and environmental impacts, and energy requirements. Section 112 further states that these standards shall not be less stringent than the average

emission limitation achieved by the best performing 12 percent of the existing sources, commonly referred to as the “MACT floor.”

The Panel is also aware of the rulemaking currently underway by EPA’s Office of Resource Conservation and Recovery to issue a final rule on the definition of non-hazardous solid waste. Boilers that combust any solid waste material would be regulated under section 129 of the CAA instead of either the Boiler MACT or the Boiler Area Source Rule.

#### **D. Regulatory Flexibility Alternatives**

EPA is seeking to minimize the burden of the proposed rules on small entities in both complying with the standards and in the permitting, recordkeeping, and reporting requirements. Because of the potential burdens and costs of meeting these standards, the Panel recommends that EPA consider and seek comments on the flexibility options described below. The Panel believes that EPA should consider adopting the following flexibility options if it could assure that they significantly reduce compliance burden without significantly compromising intended protections for human health and the environment.

##### **Work Practice Standards**

A work practice standard, instead of MACT emission limits, may be proposed if it can be justified under section 112(h) of the CAA; that is, it is impracticable to enforce the emission standards due to technical or economic limitations. Potential work practice standards could include annual boiler tune-up and/or energy audits. These work practice standards could reduce fuel use and improve combustion efficiency which would result in reduced emissions.

In general, SERs commented that a regulatory approach to improve combustion efficiency, such as work practice standards, would have positive impacts with respect to the environment and energy use and save on compliance costs. The SERs strongly suggested that a work practice standard would be necessary for area sources to comply with the rule. The SERs were concerned with work practice standards that would require energy audits and implementation of audit findings. The basis of these concerns rested upon the uncertainty of the potential costs and the lack of standardized energy audit criteria. A SER noted that even if an energy audit finding has a short payback, there is no guarantee that there are available funds to implement a particular audit’s findings.

The Panel believes that EPA should consider a regulatory approach based on improving combustion efficiency. EPA should investigate the extent to which such an approach could have multiple positive impacts for the facility with respect to the environment, energy use, and saved compliance costs for the affected facility. The panel recommends that EPA consider requiring annual tune-ups, including standardized criteria outlining proper tune-up methods targeted at smaller boiler operators. In addition, the panel recommends that EPA analyze and consider the efficacy of energy audits at improving combustion efficiency and the cost of performing the audits, especially to smaller boiler operators. Furthermore, the panel recommends the EPA take comment on the cost and efficacy of energy audits.

## **Subcategorization**

SERs commented that subcategorization is a key concept that could ensure that like boilers are compared with similar boilers so that MACT floors are more reasonable and could be achieved by all units within a subcategory using appropriate emission reduction strategies. SERs commented that EPA should subcategorize based on fuel type, boiler type, duty cycle, and location.

The Panel recognizes the need to subcategorize in order to develop MACT standards that are reasonable and achievable for the various boiler types and fuels used in the industrial, commercial, and institutional source categories. SERs recommended that EPA adopt the following subcategories for boilers:

- Fuel type (including coal rank, bagasse, biomass by type, and oil by type);
- Boiler design type (e.g. fluidized bed, stoker, fuel cell, suspension burner);
- Duty cycle;
- Geographic location;
- Boiler size;
- Burner type (with and without low-NO<sub>x</sub> burners);
- Process heaters;
- Limited use boilers.

The Panel acknowledges that it may not be practicable to adopt all of the proposed subcategories, as there is substantial overlap between the groups. However, the Panel recommends that EPA consider the subcategories discussed by the SERs and adopt a set of standards that is consistent with the Clean Air Act and which effectively reduces burden on small entities.

## **Health Based Compliance Alternatives (HBCA)**

In the vacated Boiler MACT, there were two HBCA (HCl and manganese) that could be used if the facility could demonstrate it was a low health risk to the surrounding community. Several SERs commented that adopting an HBCA for both HCl and manganese would perhaps be the most important step EPA could take to mitigate the serious financial harm the Boiler MACT would otherwise inflict on small entities using solid fuels nationwide and, therefore, HBCA should be a critical component of any future rule to lessen impact on small entities.

In light of SER comments, the Panel recommends that EPA adopt the HBCA as a regulatory flexibility option for the Boiler MACT rulemaking. The panel recognizes, however, that EPA has concerns about its legal authority to provide an HBCA under the Clean Air Act, and EPA may ultimately determine that this flexibility is inconsistent with the Clean Air Act.

## Emissions Averaging

SERs commented that a measure EPA should consider to lessen the regulatory burden of complying with Boiler MACT is to allow emissions averaging at sources with multiple regulated units. SERs commented that another approach that can aide small entity compliance is to set longer averaging times (i.e., 30-days or more) rather than looking at a mere 3-run (hour) average for performance. Given the inherent variability in boiler performance, an annual or quarterly averaging period for all HAP, but especially for CO, would prevent a single spike in emissions from throwing a unit into non-compliance.

The Panel appreciates the SERs comments regarding emission averaging and recommends that EPA consider a provision for emission averaging and long averaging times for the proposed emission limits.

## Compliance Costs

Several SERs noted that recordkeeping activities, as written in the vacated boiler MACT, would be especially challenging for small entities that do not have a dedicated environmental affairs department. The SERs advocate for the most efficient way to get reductions in HAP and requested that the Panel consider all available alternatives to reduce to a bare minimum any extraneous requirements that require considerable paperwork that in the opinion of the SERs do not contribute to emission reductions.

The Panel recommends that EPA carefully weigh the potential burden of compliance requirements and consider for small entities options such as, emission averaging within facility, reduced monitoring/testing requirements, or allowing more time for compliance. For area source boilers, the Panel recommends that EPA consider exempting them from Title V permitting

Sincerely,

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