

Comments Re: National Emission Standards for Hazardous Air Pollutants for Major Sources:
Industrial, Commercial, and Institutional Boilers and Process Heaters
Docket ID No: EPA-HQ-OAR-2002-0058, RIN 2060-AG69
Date: August 23, 2010

The American Council for an Energy-Efficient Economy (ACEEE) appreciates the opportunity to comment on the proposed “National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters rule.”

ACEEE is a nonprofit, 501(c)(3) organization dedicated to advancing energy efficiency as a means of promoting economic prosperity, energy security, and environmental protection. ACEEE has a long history of working with stakeholders throughout the industrial sector to promote energy efficiency in companies and facilities across the country.

ACEEE praises EPA for recognizing the role energy efficiency can play in the reduction of hazardous air pollutants (HAPs). Encouraging industrial facilities to go “beyond the floor” is an effective way to capture energy efficiency savings and reduce emissions of HAPs as well as greenhouse gases. Energy efficiency offers industrial facilities a control mechanism for pollutants that is in some cases more beneficial than “end-of-pipe” controls, because ancillary benefits of energy efficiency and reduced fuel costs accrue to the facility implementing energy efficiency.

ACEEE’s comments address one specific aspect of the proposed rule: energy assessments, as discussed on p. 32026. Additionally, we encourage the adoption of an output-based methodology in this rule, discussed below.

Energy assessments

In general, ACEEE supports the use of energy assessments as a “beyond-the-floor” control measure. We agree that identifying energy efficiency process improvements through an assessment or audit process can lead to emissions reductions as well as reduced operating and maintenance costs. We also agree that an energy management plan can lead to further efficiency improvements and thus emissions reductions.

However, we urge the EPA to consider allowing facilities to use their own in-house assessment teams and energy management practices when such teams and practices are equivalent to the parameters laid out for energy managers and energy management practices in this proposed rule (p. 32026). While external certified energy experts such as the proposed “DOE Qualified Specialists” or “Certified Energy Managers” are ideal for conducting energy assessments, in some facilities, individuals without such credentials have conducted exceptionally thorough in-house energy assessments. By allowing in-house energy managers to conduct or aide these assessments when appropriate, the EPA may ensure it gets a better product by virtue of the deep institutional knowledge these individuals possess of the unique aspects of the facilities in which they work. We believe that if such in-house staff can demonstrate they are as qualified as the proposed certified specialists, their assessments should be considered to be equal to those of an external third party.

While the “Energy Star Facility Energy Management Assessment Matrix” is an excellent set of broadly applicable guidelines, many facilities have already developed energy management plans using similar guidelines that are more appropriate for their facilities. In such cases, we note that the existing in-house energy management plans may yield better emissions reductions than a new Energy Star-based plan developed simply as a response to this proposed rule.

The proposed rule also specifically asks about the efficacy of DOE online tools for making decisions about efficiency upgrades (p. 32027). In general, we believe DOE online tools to be very good, and certainly helpful to such decision-making processes. However, we do not believe that the tools themselves offer a full decision-making suite—some have a limited scope or applicability. We believe such tools should be used when appropriate and useful, but that other tools and resources may be necessary and appropriate to help a facility determine the most cost-effective and advantageous efficiency upgrade plan.

Output-based emission standards

ACEEE encourages the EPA to consider including an output-based emissions standard in this proposed rule. As currently written, the proposed rule uses a strictly input-based methodology to ascribe emissions levels to particular boilers, and allows for greater emissions as the amount of fuel consumed increases. Output-based standards instead set a limit on the maximum amount of emissions allowable given a particular energy output. As the EPA noted in its 2004 publication, *Output-Based Regulations: A Handbook for Air Regulators*:¹

“Output-based emission limits, which do account for the emission reduction benefits of energy efficiency, make it more attractive for regulated sources to install clean energy technologies because these technologies provide greater compliance flexibility and the opportunity for reduced compliance costs.”

ACEEE agrees with the above philosophy, and believes that limiting this rule to input-based calculations would discourage facilities from using increased efficiency investments to achieve emissions reductions. There is evidence that, when complying with input-based emissions regulations, industrial facilities may run generating units right up to the level at which the input-based limit has been set. This behavior may be exhibited despite the fact that the generating unit might be run more efficiently (producing more useful energy with a lower rate of emissions) at a different level, were its emissions calculated on an output basis.

This proposed rule also establishes a number of “beyond-the-floor” efficiency measures such as boiler tune-ups and energy efficiency assessments and improvements. The proposed input-based standards fail to credit a facility for implementing such measures. Output-based standards would give facilities the opportunity to use “beyond-the-floor” measures to be in compliance with the new emissions rules. This change would encourage greater energy efficiency and serve to further reduce overall emissions.

Additionally, an output-based methodology is critically important to encourage combined heat and power (CHP), which produces thermal energy as well as electric power using less fuel than would be combusted in the separate generation of thermal energy and electric power. Input-based emissions regulations fail to credit CHP systems for their greater efficiency, reducing the incentive for CHP to be installed and used throughout U.S. industry. We encourage the EPA to develop a reasonable methodology for addressing CHP units that recognizes the dual outputs of a CHP system, and thus their contributions to emissions reductions and increased efficiency.

Precedents

The EPA has a history of preferring output-based methodologies for certain pollutants in multiple industries, and EPA clearly sees the benefits of promoting output-based emissions regulations for generating units. The most recent *New Source Performance Standards for Stationary Gas Turbines* ([EPA-HQ-OAR-2004-0490, FRL-8033-4], RIN 2060-AM79, p. 38483) provides turbine owners with

¹ http://www.epa.gov/chp/documents/obr_final_9105.pdf

the option of using an output-based standard for calculating NO_x emitted per unit of useful recovered energy.

In its final NESHAP rule for the Portland Cement Manufacturing Industry ([EPA-HQ-OAR-2007-0877]; RIN 2060-AO42), EPA proposed an output-based methodology for PM, NO_x and SO₂. In support of such a methodology, EPA noted that “adopting an output-based standard avoids rewarding a source for becoming less efficient,” and that an output-based approach promotes “the most efficient production processes” (p. 97). In this case, EPA proposed that the pollutants be normalized per ton of clinker produced. Since this proposed boiler rule will apply to a wide variety of manufacturing facilities in multiple sectors producing a variety of final products, normalizing pollutant output per useful energy output is a good way to ensure all affected facilities can be assessed on similar baselines.

Several U.S. states have adopted output-based emissions regulations for distributed generation, including CHP. Through the EPA’s *CHP Partnership*, the EPA has encouraged all U.S. states to adopt such rules. Including an output-based compliance option in this proposed boiler rule would help reinforce the EPA’s stated position that output-based emissions regulations recognize efficiency improvements as pollution prevention measures.

ACEEE praises the EPA for promoting a rule to reduce Hazardous Air Pollutants that recognizes the role energy efficiency can play in reducing emissions from the industrial, commercial and institutional sectors. We appreciate the opportunity to comment on this proposed rule and hope our comments aid in the development of the final rule.