

## EPA's Newly Issued Final Air Standards for Industrial Boilers will be Reconsidered

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On February 23<sup>rd</sup>, the U.S. Environmental Protection Agency (EPA) issued the much anticipated final rules under the Clean Air Act (CAA) for boilers and incinerators and one final rule under the Resource Conservation and Recovery Act (RCRA) addressing the definition of non-hazardous solid waste. The final rules contain a number of changes from the proposals, most of which are attempts by EPA to address achievability concerns raised by affected boiler owners and operators due, in part, to EPA's approach of developing the emission limits on a pollutant-specific basis instead of looking at what specific units achieve. Along with the final rules, EPA announced its plan to initiate a reconsideration process for the CAA rules, which could result in potential future changes to a number of aspects of these rules. The recently issued rules include:

1. National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (*Major Source Boiler Rule*);
2. National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (*Area Source Boiler Rule*);
3. Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units (*CISWI Rule*); and
4. Identification of Non-Hazardous Secondary Materials That Are Solid Waste (*RCRA Solid Waste Definition*).

Copies of the final rules can be obtained by contacting a member of the firm or at the following website: [www.epa.gov/airquality/combustion/actions.html](http://www.epa.gov/airquality/combustion/actions.html).

### BACKGROUND

Section 112(d) of the CAA requires EPA to establish maximum achievable control technology (MACT) standards for major sources of hazardous air pollutants (HAPs). Major sources are those that emit more than 10 tons per year (tpy) of any single HAP or 25 tpy of HAPs in the aggregate. For purposes of setting MACT standards, EPA has grouped facilities into source categories, which consist of facilities engaged in a common activity.



Under the CAA, the MACT standard for existing sources must be at least as stringent as the “MACT floor,” the average emission level of the best-performing 12 percent of sources in the source category. EPA can impose requirements that are more stringent than the MACT floor, referred to as “beyond the floor” requirements, but must take cost, energy, and other environmental impacts into consideration when doing so. For new sources, EPA is required to set the MACT standard at the level achieved by the best performing similar source in the source category.

EPA first issued a final rule setting MACT standards for institutional, commercial and industrial boilers at major sources on September 13, 2004. Shortly thereafter, EPA re-issued a rule under section 129(a)(1)(D) of the CAA (a provision similar to section 112 but specific to solid waste combustion sources) establishing definitions for “solid waste,” “commercial and industrial waste,” and “commercial and industrial solid waste incineration” (CISWI Rule). Units that combust certain types of solid waste not covered by the CISWI Rule were covered by the Boiler MACT.

Both the earlier Boiler MACT and the earlier CISWI Rule were challenged by environmental groups, industry groups, and municipalities, and were vacated by the D.C. Circuit. On June 4, 2010, the EPA issued two proposed Boiler Rules, a proposed CISWI rule, and a proposed definition of solid waste under RCRA. Subsequently, EPA was under court order to complete the final rules by February 21, 2011.

## FINAL RULES

The *Major Source Boiler Rule* impacts HAP emissions from industrial, commercial and institutional boilers burning various fuels including coal, oil, biodiesel, natural gas, landfill gas, and biomass<sup>1</sup> as follows:

- Combines biomass and coal subcategories into a single, solid-fuel category potentially providing some compliance flexibility;
- Finalizes work practice standards (instead of emission limits for any air pollutant) requiring an annual tune-up for new and existing natural gas-, refinery gas-, and other comparable gas-fired units with a heat input capacity over 10 million Btu per hour;
- Announces that work practice standards (applicable to all pollutants) will be finalized for all units during periods of startup and shutdown but that emission limits will apply during malfunction periods;

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<sup>1</sup> The definition of “biomass fuel” is very expansive and includes any biomass-based solid fuels that are not solid waste, such as wood residue and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings), animal manure, vegetative agricultural and silvicultural materials (*e.g.*, logging residues, nut and grain hulls and chaff, bagasse). Inclusion of these materials in the definition does not imply that they are or are not solid waste.



- Establishes work practice standards requiring a biennial tune-up for limited use units, which include those units that operate for unpredictable periods of time, limited hours, and at less than full load in many cases;
- Establishes work practice standards requiring a tune-up every two years for all new and existing units with a heat input capacity of less than 10 million Btu per hour;
- Requires all sources with existing boilers and process heaters to conduct a one-time energy assessment or audit to identify cost-effective energy-saving measures that will also decrease emissions;
- Finalizes emission limits for all other existing and new boilers and process heaters located at major sources, including separate limits for mercury, dioxin/furan, particulate matter (as a surrogate for non-mercury metals), hydrogen chloride (as a surrogate for acid gases), and carbon monoxide (as a surrogate for non-dioxin organic air toxics). Owners and operators of affected sources may opt to either demonstrate compliance on a heat input basis or an output-basis. However, boilers and process heaters that are already subject to another MACT standard are not subject to the boiler standards; and
- Requires compliance with the rule requirements within three years of the date the final rule is published in the *Federal Register*.

The **Area Source Boiler Rule** impacts HAP emissions from industrial, commercial and institutional boilers at sources below the major threshold (10 tpy of any single HAP or 25 tpy in the aggregate) burning coal, oil, and biomass. Natural gas-fired boilers, as well as those fired by landfill gas, are not included in the industry source category covered by the Area Source Boiler Rule. The final rule impacts affected units as follows:

- Finalizes standards based on generally available control technology (GACT) for biomass and oil-fired area source boilers rather than the proposed MACT;
- Redefines the coal, biomass and oil subcategories for area source boilers to clarify the fuel-type inputs that would define each subcategory. In particular, the EPA allows biomass to include boilers that burn at least 15 percent of biomass on an annual heat input basis. New biomass or oil facilities with a heat input of 10 million Btu per hour or more would be required to meet emissions limits whereas existing facilities would adhere to work practice standards;
- Requires all sources with existing boilers with a designed heat input capacity of 10 MMBtu/h or greater to conduct an energy assessment or audit to identify cost-effective energy-saving measures that will also decrease emissions; and
- Requires compliance with the emission standards within three years of the date the final rule is published in the *Federal Register* and work practices within one year from date of publication.



The **CISWI Rule** covers four subcategories: incinerators, energy recovery units, waste burning kilns; and small incinerators in very remote locations. It establishes stringent emission limits (New Source Performance Standards) for CISWI units for mercury, lead, cadmium, hydrogen chloride, particulate matter, carbon monoxide, dioxins/furans, nitrogen oxides, and sulfur dioxide. Unlike the proposal, burn-off ovens that combust residual materials off racks, parts, drums or hooks so that those items can be re-used in various production processes are not covered by the final rule.

The final **RCRA Solid Waste Definition** provides that the following non-hazardous secondary materials burned as fuels or used as ingredients are *not* considered “solid waste.” Boilers and process heaters combusting these secondary materials would be subject to the final Boiler Rules, while units combusting materials meeting the definition of “solid waste” would be subject to the final CISWI Rule, which has more stringent limits for a number of pollutants:

- Traditional fuels, including fuels historically managed as valuable fuel products (e.g., fossil fuels and their derivatives, and virgin wood), and alternative fuels developed from virgin materials that can now be used as fuel products (e.g., used oil meeting certain specifications, currently mined coal refuse, and “clean cellulosic biomass”);
- Material used as a fuel that remains within the control of the generator and that meets certain legitimacy criteria for classifying the material as a fuel rather than a solid waste;
- The following materials that are used as a fuel: scrap tires removed from vehicles and managed under an established tire collection program, and resinated wood residuals;
- Material that meets certain legitimacy criteria that is used as an ingredient in a manufacturing process;
- Previously discarded material that has been sufficiently processed to produce a fuel product or an ingredient product that meets certain legitimacy criteria; and
- Material used as a fuel for which EPA has granted a petition for a “non-waste” determination.

## RECONSIDERATION

In recognition that a number of issues arose after the opportunity for public comment, the EPA is developing a reconsideration notice under CAA section 307(d)(7)(B) for the three CAA rules. Additionally, the EPA will review petitions for reconsideration submitted by the public. The EPA outlined a number of issues which it will address in the reconsideration, including, among others:

- Revisions to the proposed subcategories in the Major Source Boiler MACT which combined biomass and coal-fired units into one group;



- Establishment of a fuel specification in the Major Source Boiler MACT through which gas-fired boilers that use a fuel other than natural gas may comply with the same work practices requirements as natural gas units;
- Establishing work practice standards for limited use major source boilers;
- Establishment of standards for biomass and oil-fired area source boilers based on GACT;
- Revision of the proposed subcategory for energy recovery units for CISWI units;
- Providing sources with an affirmative defense for malfunction events for boilers and for CISWI units; and
- The exemption of area source boilers from Title V operating permitting requirements.

### ISSUES WITH FINAL RULES AND IMPLICATIONS

While the final CAA rules contain several features that will likely facilitate compliance for some sources--*e.g.*, work practices, rather than stringent emissions limits, for natural gas- and landfill gas-fired units and startup and shutdown periods--the rules still pose significant achievability concerns for many boiler owners and operators. For example, EPA's final emission limits are based on a standard-setting approach which considered each pollutant (or surrogate) *separately* instead of looking at what specific best performing units could achieve. This means that units that have low emissions for one pollutant may still need to install controls so they can meet *all* the emission limits included in the standards. In addition, while the final Boiler MACT allows landfill gas boilers to meet work practice standards, a source first must demonstrate that the landfill gas can meet the same mercury and hydrogen sulfide levels as natural gas in order to be eligible for this treatment.

EPA also finalized a controversial energy audit requirement, which will necessitate all existing sources to perform a one-time energy audit or assessment to identify energy saving measures. This assessment requires sources to look beyond the boiler to other energy consuming systems (*e.g.*, lighting, process heating or cooling) in the facility to identify ways to reduce energy consumption. While EPA is not requiring sources to implement the identified measures and is allowing recent audits (performed after January 1, 2008) to meet the requirement, this is a novel requirement for which sources will have to dedicate time and resources to perform.

Finally, though the final rule packages attempt to resolve a number of concerns raised by stakeholders during the public comment process, EPA has announced its intention to reconsider a broad array of issues addressed by the rules. Thus, it is very likely that these rules will undergo further revision, which could impact the ultimate applicability and stringency of the standards creating further uncertainty for affected entities in the interim. Also a concern is that these rules have prescriptive deadlines for compliance. With the reconsideration, there will only be a three-month suspension of these deadlines which means that affected businesses will have an even shorter amount of time to comply with any new requirements.



EPA's proposed reconsideration notice is under development and will be released later this spring to solicit public input on those aspects of the rule identified by EPA and possibly others that may be raised by petitions for reconsideration filed by the public.

### FOR ADDITIONAL INFORMATION

Van Ness Feldman closely monitors and counsels clients on air and waste regulatory developments. If you would like more information about the final Boiler Rules or assistance with participation in EPA's upcoming reconsideration, please contact Britt Fleming, Stephen Fotis, Mitch Bernstein, or any member of the firm's Environmental Practice in Washington, D.C. at (202) 298-1800 or in Seattle, WA at (206) 623-9372.

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