Area Source Facilities: Final Adjustments to the Air Toxics Standards for Industrial, Commercial, and Institutional Boilers

Background Information

On April 29, 2010, the U.S. EPA proposed rules to regulate hazardous air pollutants (HAPs) emitted by industrial, commercial, and institutional (ICI) boilers operating at area source facilities. This rule is commonly referred to as the area source ICI boiler rule. The U.S. EPA initially promulgated a final rule in March of 2011, but afterwards proposed a reconsideration of certain elements and published the final rule on February 1, 2013.

Regulated Pollutants

The pollutants regulated by the rules are mercury, toxic metals, acid gases, and toxic organic compounds including furans and dioxins.

General Applicability

The area source ICI boiler rule regulates all boilers at facilities that are not classified as major sources. A major source is a facility that emits or has the potential to emit 10 tons per year of an individual HAP pollutant or 25 tons per year of all combined HAP pollutants. Any boiler, however, at either a major or area source, which burns solid waste, is subject to HAP emission requirements under the commercial and industrial solid waste incinerator (CISWI) rule rather than the ICI rule.

The U.S. EPA, in conjunction with the CISWI rule, has finalized the non-hazardous secondary materials (NHSM) rule, which specifies whether certain fuels are considered solid waste.

Rule Requirements

The area source rule sets requirements for all fossil fuel and biomass boilers operating at area sources. The rule, however, exempts temporary, natural gas, and residential boilers from all rule requirements. The area source rule requirements are as follows:

**Emission Limitations:**

- New coal-fired boilers of 10 mmBtu/hr or larger in firing capacity must comply with emission limitations for particulate matter (PM), mercury (Hg), and carbon monoxide (CO).
- New biomass and oil-fired boilers of 10 mmBtu/hr or larger in firing capacity must comply with emission limitations for PM.
- Existing coal-fired boilers of 10 mmBtu/hr or larger in firing capacity must meet emission limitations for Hg and CO.

**Tune-Ups:**

- Boilers that conduct a tune-up every 2 years: coal-fired boilers < 10 mmBtu/hr, oil-fired boilers > 5 mmBtu/hr, and all biomass boilers.
- The following boilers are exempt from the 2 year tune-up schedule and subject to tune-ups every 5 years: Any boiler with a continuously operating oxygen trim system, a limited-use boiler, or a seasonal-use boiler.
- Oil-fired boilers < 5 mmBtu/hr in firing capacity are subject to tune-ups every 5 years.
Energy Assessment:

- Facilities operating coal, biomass, or oil-fired boilers > 10 mmBtu/hr in firing capacity must perform an energy assessment on or after January 1, 2008 and by March 21, 2014.

Key Changes in Finalizing Rule

Based on the most recent reconsideration, U.S. EPA made the following key changes in finalizing the area source ICI rule:

- Extending by two years the initial compliance date for existing area source boilers subject to the tune-up requirement.
- Revising the deadline for initial notification for existing area source boilers to no later than January 20, 2014.
- Revising provisions for existing dual-fuel fired units that fuel switch from gas to coal, biomass or oil such that they would still be considered existing sources.
- Providing subcategories for seasonally-operated boilers and limited-use boilers.
- Requiring tune-ups every five years, instead of every two, for certain area source boilers: seasonally-operated units, limited-use units, small oil-fired units and units with oxygen trim systems.
- Clarifying that temporary boilers and residential boilers are not part of the source categories being regulated.
- Revising particulate matter (PM) emission limit requirements such that combustion of oil meeting certain sulfur content requirements by new oil-fired boilers is considered an alternative method of meeting the PM emission standard and that such units are not required to meet the PM emission limit.
- Reducing the fuel sampling and performance testing requirements such that after demonstration of initial compliance, under certain circumstances, further fuel sampling for boilers subject to a mercury emission limit and further PM performance testing for boilers subject to a PM emission limit are not required.
- Providing the option of continuous emissions monitoring to demonstrate continuous compliance with the carbon monoxide (CO) emission limit.
- More clearly defining the scope of the energy assessment and allowing for more streamlined assessments, including allowing sources already operating under certain energy management programs to satisfy the assessment requirement.

Compliance Dates

Facilities must submit an Initial Notification by January 20, 2014. The compliance date for existing area source facilities is March 21, 2014. This date may be extended by one year with DNR and EPA approval.

More Information

EPA links for more information:

- General information: [http://www.epa.gov/airquality/combustion/actions.html](http://www.epa.gov/airquality/combustion/actions.html)
- Compliance, tune-up and energy assessment resources including downloadable forms: [http://www.epa.gov/airquality/combustion/compliance/index.html](http://www.epa.gov/airquality/combustion/compliance/index.html)