



National Aeronautics and
Space Administration

Principal Center for Regulatory Risk Analysis and Communication

REGULATORY ALERT

Proposed Rules: Boilers and Incinerators

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Title: Clean Air Act Standards for Boilers and Process Heaters and Commercial/Industrial Solid Waste Incinerators	Date [Citation]: 2 December 2011 [Prepublications for Area Source Boilers , Major Source Boilers and Process Heaters , and CISWI and NHSM]
Rulemaking Type: Proposed Rules; Reconsideration of Final Rules	Regulatory Agency: U.S. Environmental Protection Agency

Executive Summary

On 2 December 2011, the U.S. Environmental Protection Agency (EPA) posted pre-publication copies of proposed Clean Air Act standards for large and small boilers and certain incinerators that emit hazardous air pollutants (HAPs). The proposed rules are the result of EPA's reconsideration of the area source boiler standards [76 FR 15554], major source boiler and process heater standards [76 FR 15608], and commercial/industrial solid waste incinerator (CISWI) standards [76 FR 15704] promulgated on 21 March 2011. The proposed rules would amend several current standards for boilers at both major and area sources of HAP emissions and CISWIs. Alongside the proposed revisions to the CISWI standards, EPA also proposed revisions to the Identification of Non-Hazardous Secondary Materials (NHSM) final rule [76 FR 15372], promulgated on 21 March 2011. The proposed revisions would clarify which nonhazardous secondary materials are, or are not, solid wastes when burned in combustion units. Public comments on all of these revisions will be accepted for 60 days following publication in the Federal Register. EPA intends to finalize these standards in spring 2012. Additional information is posted on EPA's [website](#).

Potential Impacts to NASA

NASA Centers and contractor facilities that own or operate boilers at major or area sources of HAPs could be required to identify the boiler and process heater subcategories to comply with the proposed standards. Depending on the subcategory, changes in requirements could include the following:

- Revisions to emission limits
- Changes in allowable monitoring methods
- Subcategory changes
- Tune-up frequency changes
- Work practice modifications

The proposed revisions also could reduce waste streams if certain types of nonhazardous secondary materials are used as fuel in combustion units rather than disposed as waste.

Area Source Boiler Standards

The proposed amendments to the Area Source Boiler Standards would affect coal, biomass, and oil-fired units—but not those burning natural gas—at area sources of HAPs. Proposed revisions include the following:

- Addition of a new subcategory for seasonal boilers
- Deadline extension by 1 year for initial tune-ups of existing boilers: new deadline would be 21 March 2013. Seasonal boilers and oil-fired boilers with a heat input capacity equal to or less than 5 million British thermal units per hour (MMBtu/hr) would be required to complete the initial tune-up by 21 March 2014.
- Reduction of frequency for subsequent tune-ups. Subsequent tune-ups for seasonal boilers and oil-fired boilers with a heat input capacity equal to or less than 5 MMBtu/hr would be required every 5 years. For all other units, a tune-up would be required biennially.
- Addition of exemptions for temporary boilers, residential boilers, electric boilers, and electric utility steam generating units
- Less stringent mercury (Hg) and carbon monoxide (CO) emission limits for coal boilers
- Ability to use CO continuous emissions monitoring system (CEMS) and continuous oxygen trim analyzer systems
- Revised definitions of "energy assessment" and "periods of natural gas curtailment or gas supply emergencies"
- Change to 30-day rolling average for parameter monitoring and compliance with operating limits

The compliance date for the revised emission limits and other work practices would remain 21 March 2014.

Major Source Boiler and Process Heater Standards

The proposed amendments to the Major Source Boiler and Process Heater Standards would affect coal, biomass, oil, and gas-fired units at major HAP sources. Proposed revisions include the following:

- Revisions to subcategory definitions and addition of a new subcategory for heavy and light liquid boilers for particulate matter (PM) and CO
- Addition of exemptions for residential boilers and certain boilers used as control devices to comply with other rules
- Clarification of tune-up provisions: tune-ups for new sources required within 1 year of startup
- Reduction of frequency for subsequent tune-ups. For gas-fired and light liquid-fired units rated less than 5 MMBTU/hr heat input, a tune-up is required every 5 years. For all other units, a tune-up is required biennially if rated less than 10 MMBtu/hr and annually if rated 10 MMBtu/hr or more.
- Elimination of the numerical limits for dioxin/furan and introduction of work practice standards
- Revision of emission limits based on new data
- Additional emission limits for PM, dependent on subcategory, and CO
- Elimination of the interim limits for new units constructed between proposal and promulgation
- Change in operating parameter averaging times from 12-hour block averages to 30-day rolling averaging period
- Definition of startup and shutdown based on 25-percent load, and addition of work practice requirements for startup and shutdown
- Definition of hot water heater to include hot water boilers not generating steam with heat input capacity <1.6 MMBtu
- Amendment to process heater definition to clarify that waste heat process heaters are not covered. Waste heat process heaters and boilers can include supplemental burners as long as those burners only combust Gas 1, up to 50 percent of the heat input.
- Clarification of energy assessment definition

The compliance date for existing sources would change from 21 March 2014 to 3 years after the amendments are finalized and the compliance date for new sources would be 60 days after the amendments are finalized or upon startup (whichever is later).

CISWIs

The proposed amendments to the CISWI standards include the following:

- Revisions to the subcategory of energy recovery units (ERUs) to add limits for biomass versus coal
- Revisions to many emission limits, including the addition of PM, cadmium, and lead limits for ERUs burning solid and liquid fuels. Most revisions are less stringent, except for stricter limits for solid fuel ERUs and hazardous waste burning kilns.
- Revision to sulfur dioxide limit for existing small remote incinerator, to become more stringent
- Establishment of limitations on fuel switching provisions
- Revision of the definition of cyclonic burn barrels
- Revisions to the CO monitoring requirements
- Establishment of a definition of “homogeneous waste” in the CISWI rule
- Replacement of continuous PM monitoring for ERUs greater than 250 MMBtu/hr design heat input capacity with continuous parameter monitoring system requirements

The compliance date for existing sources in the incinerator, ERU, and waste-burning kiln subcategories is changed to 5 years after the date of publication of the final reconsideration rule or 3 years after the state plan is approved, whichever happens first. For new sources in the incinerator, ERU, and waste-burning kiln subcategories, the compliance date is changed to 6 months after the date of publication of the final reconsideration rule.

Revisions to the Identification of Nonhazardous Secondary Materials

EPA is proposing to revise the NHSM as follows:

- Clarifying the scope of certain materials that were included in the final rule. In the case of “clean cellulosic biomass,” EPA is identifying specific materials included in the current definition.
- Adding a process for an owner or operator of a facility to petition EPA to categorically determine additional NHSMs as being non-wastes when used as fuels.
- Identifying two secondary materials, resinated wood products and tires, managed under the oversight of established tire collection programs, as non-wastes when used as a fuel.
- Revising the legitimacy criteria to allow the comparison of groups of contaminants and clarifying that contaminant comparisons may be made for any traditional fuel that a combustion unit is designed to burn