

# **EPA's Air Toxics Standards Major and Area Source Boilers and Certain Incinerators Overview of Changes and Impacts**

## **ACTION**

On December 2, 2011, the U.S. Environmental Protection Agency (EPA) proposed changes to standards that would reduce emissions of air pollutants from existing and new boilers and commercial and industrial solid waste incinerators (CISWI).

Using a wide variety of fuels, including coal, oil, natural gas and biomass, boilers are used to power heavy machinery, provide heat for industrial and manufacturing processes in addition to a number of other uses. EPA's boiler proposals recognize the diverse and complex range of uses and fuels and tailors standards to reflect the real world operating conditions of specific types of boilers. The CISWI proposal recognizes the important relationship to the Non-Hazardous Secondary Materials (NHSM) rule, which defines solid waste for purposes of the air rules. The NHSM rule helps categorize units as either boilers or CISWI units. This fact sheet provides an overview of the benefits of the rules and highlights key changes the agency has made.

## **BACKGROUND**

- These rules are developed under sections 112 and 129 of the Clean Air Act, two provisions that target toxic air pollution.
- Under these sections, EPA is required to set technology-based standards for toxic air pollutants, reflective of levels achieved by the best performing existing sources.
- There are more than 1.5 million boilers in the U.S.
- For 86 percent of all boilers in the United States, these rules would not apply, because these boilers burn clean natural gas at area source facilities and emit little pollution.
- For almost 13 percent of all boilers in the United States, EPA's standards would continue to rely on practical, cost-effective work practice standards to reduce emissions.
- For the highest emitting 0.4 percent of all boilers in the United States, including boilers located at refineries, chemical plants, and other industrial facilities, EPA is proposing more targeted revised emissions limits that provide industry practical, protective, cost-effective options to meet the standards.
- For CISWI units, EPA is proposing revised emission limits for certain units that reflect the best performing commercial and industrial waste incineration units.
- Existing boilers would have three years to comply with these standards and can obtain an additional year beyond that, if technology cannot be installed in time.
- Existing incinerators would need to comply no later than three years after EPA approves a state plan or five years after the publication date, whichever is earlier.

## **Health Benefits and Costs of the Boiler and CISWI Rules**

- EPA has worked throughout this reconsideration process to fully consider all of the information provided to the agency. Based on its review of this information, the agency is proposing to establish standards that are achievable, protective and cost-effective.

- Overall, the changes have retained the significant health benefits and resulted in rules that are simpler to implement. Today's reconsideration also maintains the dramatic cuts in the cost of implementation that were achieved in the final rules issued in March.
- The proposed changes would cut emission of pollutants such as mercury, particle pollution, sulfur dioxide, dioxin, lead, and nitrogen dioxide.
- These pollutants can cause a range of dangerous health effects - from developmental disabilities in children to cancer, heart disease and premature death.
- The proposed standards would have direct benefits to many communities where people live very close to these units.
- Together, the standards will avoid up to 8,100 premature deaths, 5,100 heart attacks, and 52,000 asthma attacks.
- EPA estimates that Americans would receive 12 to 30 dollars in health benefits for every dollar spent to meet the proposed standards.
- The proposed standards reflect the latest and best information provided during the public comment period and after the final standards were issued in March.
- EPA will continue the dialogue on these important standards throughout the public comment period, and encourages stakeholders to provide any additional data that may help better target these standards.

### **Major and Area Source Boiler Rules**

Based on public comments and additional data provided after the rules were finalized, EPA is proposing some significant changes to the required air toxics standards for boilers and incinerators.

- **Area Source Boilers:** Due to how little these sources emit, EPA is continuing to require work-practice standards, which include routine maintenance and tune-ups for 98 percent of area source boilers covered by the proposal. Only 2 percent of area source boilers would need to meet emissions limits. The costs and benefits of the standards remain unchanged.
  - **Initial Tune-ups:** To increase flexibility for these sources: EPA is proposing to create additional subcategories and require initial compliance tune-ups after two years instead after the first year to give facilities ample time to comply with the standards.
  - **Seasonal Use Area Source Units:** EPA is proposing to require seasonal operators to conduct tune-ups every five years instead of every other year. These units are operated less frequently and have less of a need to conduct tune-ups than boilers that are operated year-round.
- **Major Source Boilers:** There are approximately 14,000 major source boilers in the US. Eighty-eight percent of those would be required to conduct periodic tune-ups. Twelve percent would be required to take steps to meet emission standards if they do not already meet the standards. Based on additional data provided after the agency issued final standards in March, EPA is proposing to:

- **Create new subcategories for light and heavy industrial liquids** to reflect design differences in the boilers that burn these fuels. This change would improve the standards' achievability, without decreasing public health protections.
- **Set new emissions limits for PM** that are different for each solid fuel subcategory (e.g., biomass, coal) to better reflect real-world operating conditions.
- **Set new emissions limits for carbon monoxide** based on newly submitted data that shows CO emissions from boilers vary greatly. EPA is proposing to set new limits to more adequately capture that variability.
- **Allow alternative total selective metals emission limits** to regulate metallic air toxics instead of using PM as a surrogate, allowing more flexibility and decreasing compliance costs for units that emit low levels of HAP metals.
- **Replace numeric dioxin emissions limits with work practice standards** to reflect a more robust analysis that shows dioxin emissions are below levels that can be accurately measured.
- **Increase flexibility in compliance monitoring** to remove continuous emissions monitoring requirements for particle pollution for biomass units and to propose carbon monoxide limits that are based on either stack testing or continuous monitoring.
- **Revise emissions limits for units located outside the continental United States** to reflect new data and to better reflect the unique operating conditions associated with operating these units.
- **Continue to allow units burning clean gases** to qualify for work practice standards instead of numeric emissions limits, maintaining flexibility and achievability.

### **CISWI**

Based on public comments, additional data provided, and adjusting the methodology EPA used to develop the final rules, the agency is revising emission limits including those for dioxin and mercury. EPA further clarified what units would fall under the definition of CISWI. EPA also revised some monitoring requirements, which would provide facilities with more flexibility in achieving standards and lower compliance costs.

EPA is also proposing revisions to its final rule which identified the types of non-hazardous secondary materials that can be burned in boilers or solid waste incinerators. Following the release of that final rule, stakeholders expressed concerns regarding the regulatory criteria for a non-hazardous secondary material to be considered a legitimate, non-waste fuel, and how to demonstrate compliance with those criteria. To address these concerns, EPA's proposed revisions provide clarity on what types of secondary materials are considered non-waste fuels, and greater flexibility. The proposed revisions also classify a number of secondary materials as non-wastes when used as a fuel and allow for a boiler or solid waste operator to request that EPA identify specific materials

as a non-waste fuel.

## **BACKGROUND**

In March 2011, EPA published a notice stating that the agency intended to reconsider certain aspects of the boiler and commercial and industrial solid waste incinerator rules. EPA also received more than 50 petitions for reconsideration from industry, states, and environmental groups. Based on these petitions, the agency's own reconsideration and on the additional information industry provided, EPA is proposing important changes to the March 2011 standards. This proposed reconsideration would maintain public health protections through significant reductions in toxic air emissions, including mercury and soot, while increasing the flexibility, consistency and achievability of these standards.

EPA will accept public comment on these standards for 60 days following publication in the Federal Register. EPA intends to finalize the reconsideration in Spring 2012.

## **HOW TO COMMENT**

- The EPA will accept comment on the proposals for 60 days after publication in the Federal Register. Comments, identified by Docket ID Number EPA-HQ-OAR-2002-0058 (boiler major) EPA-HQ-OAR-2008-0790 (boiler area), Number EPA-HQ-OAR-2003-0119 (CISWI) may be submitted by one of the following methods:
  - [www.regulations.gov](http://www.regulations.gov): follow the on-line instructions for submitting comments.
  - E-mail: Comments may be sent by electronic mail (e-mail) to [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov).
  - Fax: Fax your comments to: (202) 566-9744.
  - Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
  - Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, 1301 Constitution Ave., NW, Room 3334, Washington, DC 20004. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.