

## FACT SHEET

### Final Amendments to Air Toxics Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Source Facilities

#### ACTION

- On July 21, 2022, the U.S. Environmental Protection Agency (EPA) finalized amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, commonly known as the “Boiler MACT.”
- The amendments, and additional explanation provided in this action, are EPA’s response to three remands issued by the D.C. Circuit Court, two in 2016 in *U.S. Sugar Corp. v. EPA* and one in 2018 in *Sierra Club, et al. v. EPA*.
- To satisfy one remand, this action finalizes 34 recalculated maximum achievable control technology (MACT) emission limits for certain subcategories of boilers. In *U.S. Sugar*, the Court ruled that EPA improperly excluded certain sources from consideration when calculating the MACT floor emission limits.
- To address the other two remands, this rule provides the Court with further explanation:
  - to satisfy its finding that the agency failed to address a comment relating to potentially available control technologies to reduce organic hazardous air pollutant (HAP) emissions without impacting carbon monoxide (CO) and whether the best performing boilers might be using alternative control technologies to reduce organic HAP; and
  - regarding EPA’s decision to establish 130 parts per million (ppm) as the lowest (*i.e.*, most stringent) emission limit for CO consistent with the requirements of the Clean Air Act (CAA).
- These amendments will protect air quality and public health by reducing emissions of HAPs such as formaldehyde, benzene, and polycyclic organic matter. The amendments will also result in reductions in particulate matter (mostly fine particulate matter), a surrogate for metallic HAP, by an estimated 586 tons per year and sulfur dioxide by an estimated 1,141 tons per year.
- EPA estimates these amendments would cost industry about \$50 million per year with estimated annual benefits of \$71 - \$72 million with costs and benefits in 2016 dollars.

#### REMANDED EMISSION STANDARDS

- In the 2013 NESHAP, EPA defined each boiler subcategory based on a 10 percent threshold, that is, to be included in a subcategory, a boiler had to operate using at least 10 percent of the category-defining fuel type. For example, solid fuel units must burn at least 10-percent solid fuel.
- The MACT floor analysis conducted for the rule, however, used a 90-percent threshold, thus, excluding some units from the MACT floor analyses.

- In the first remand resulting from *U.S. Sugar Corp v. EPA*, the Court ruled that if a source is to be considered in a subcategory, then the source must be accounted for in setting the MACT floor.
- Based on the results of the re-analyses, EPA is finalizing revisions to 34 (of 90) emission limits for new and existing affected sources. Of these 34 emission limits, 28 would become more stringent and six would become less stringent.

### **CO AS A SURROGATE FOR ORGANIC HAP**

- In the second remand resulting from *U.S. Sugar Corp. v. EPA*, the Court ordered EPA to further explain its rationale in response to a public comment relating to the potential availability of alternative control technologies that reduce organic HAP without impacting CO emissions.
- EPA's response states that the best performing industrial boilers do not employ downstream controls for CO or non-dioxin organic HAP because the primary control (the combustor) is effectively destroying the non-dioxin organic HAP and downstream controls are not needed to achieve additional reductions.

### **CO 130 PPM THRESHOLD EMISSION LIMITS**

- In the *Sierra Club, et al. v. EPA* remand, the Court found that EPA did not provide a sufficient explanation to support its rationale establishing a 130 ppm threshold as the lowest CO limit. In the 2013 rule, EPA determined, based on its data, that no additional reduction of organic HAP would occur once CO levels had been reduced to 130 ppm.
- In the response, EPA explains that its determination regarding the 130 ppm threshold is supported by an independent study and an EPA study that demonstrate a similar trend.

### **BACKGROUND**

- In 2011, EPA published air toxics standards for major source industrial, commercial, and institutional boilers and process heaters and amended these standards in 2013 and 2015.
- Following these amendments, EPA received petitions from environmental groups and industry seeking judicial review of the Boiler MACT.
- In July 2016, the Court remanded emission standards for certain subcategories of boilers in instances where it determined EPA had improperly excluded certain units in calculating MACT floor emission standards. The Court also remanded for further explanation EPA's use of CO as a surrogate for organic HAP (*U.S. Sugar Corp. v. EPA*).
- In March 2018, in a separate case (*Sierra Club, et al. v. EPA*), the Court remanded for further explanation EPA's decision to set a limit of 130-ppm CO as a minimum standard for certain subcategories of boilers.
- Industrial boilers in this source category include boilers used in manufacturing, processing, mining, refining or any other industry for the purpose of providing steam, hot water and/or electricity.

- Institutional and commercial boilers are located at commercial establishments, medical centers, research centers, institutions of higher learning, hotels and laundries.
- Process heaters include, but are not limited to, secondary metals process heaters, petroleum and chemical industry process heaters, and other process heaters.

#### **FOR MORE INFORMATION**

- Interested parties can download a copy of the rule notice from EPA's web site at the following address: <https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-boilers-and-process-heaters>.
- This final action and other background information are also available electronically at <https://www.regulations.gov/>, EPA's electronic public docket and comment system.
- For further technical information about the rule, contact Christopher Werner, EPA's Office of Air Quality Planning and Standards, Sector Policies and Programs Division, at (919) 541-5133 or [werner.christopher@epa.gov](mailto:werner.christopher@epa.gov)