

FACT SHEET

Final Amendments to Air Toxics Standards for Primary Copper Smelting

ACTION

- On May 1, 2024, the U.S. Environmental Protection Agency (EPA) issued final rules to reduce toxic air pollution from Primary Copper Smelting major sources and area sources.
- The action for major sources will reduce emissions of toxic metals, primarily lead and arsenic, by nearly 50 percent, or eight tons per year, and limit emissions of a number of previously unregulated pollutants from these sources, including mercury, benzene, toluene, hydrogen chloride, chlorine, polycyclic aromatic hydrocarbons, naphthalene and dioxin/furans.
- The final rule for major sources will protect public health and advance environmental justice by reducing cancer and other health risks and provide an ample margin of safety for all communities near major source copper smelting facilities.
- The final rule for area sources will ensure emissions of air toxics are minimized and improve compliance assurance.
- These two rules will also remove exemptions for periods of startup, shutdown, and malfunction, and will ensure that the standards are being met by requiring electronic reporting of compliance data.
- There are three facilities in the U.S. covered by these actions – two major sources located in Hayden, AZ, and Claypool, AZ, and one area source in Magna, UT.
- EPA expects the benefits from reducing cancer and other health risks will outweigh the costs, which are estimated to be approximately \$85.1 million initially and then \$17.3 million annually thereafter.

ADDITIONAL DETAILS

- Today's action finalizes revisions to the National Emission Standards for Hazardous Air Pollutants (NESHAP) based on EPA's risk and technology review (RTR) for Primary Copper Smelting major sources (subpart QQQ) and a technology review for the Primary Copper Smelting area source NESHAP (subpart EEEEE).
- The Primary Copper Smelting source categories include two major sources and one area source.
- Following the risk and technology review of the major source NESHAP, and after considering public comments and additional information provided by industry, the EPA is finalizing:
 - Maximum achievable control technology (MACT) floor-based particulate matter (PM) limits for the anode refining department point source emissions;
 - Beyond-the-Floor (BTF) PM limits to address process fugitive emissions from the smelting vessels, copper converter department, and anode refining roofline vents combined;
 - MACT floor-based PM limits for new copper converter departments;

- MACT floor-based emission standards for previously unregulated hazardous air pollutants (HAP) including mercury, benzene, toluene, hydrogen chloride (HCl), chlorine, polycyclic aromatic hydrocarbons (PAH), naphthalene and dioxin/furans (D/F);
- PM limits for the combined anode refining department and Hoboken converter process fugitive capture systems (*i.e.*, the aisle scrubber) that are based on the addition of a baghouse upstream of the scrubber;
- Design standards to improve capture and control of HAP metals and a BTF lead emissions limit to minimize process fugitive emissions from roofline vents for certain processes;
- Work practice standards for the use of bypass stacks;
- More robust fugitive dust control plan requirements;
- Removal of startup, shutdown and malfunction (SSM) exemptions and associated provisions; and
- Electronic reporting requirements.
- Following the technology review of the area source NESHAP, and after considering public comments, the EPA is finalizing:
 - Removal of SSM exemptions and associated provisions; and
 - Electronic reporting requirements.

RESIDUAL RISK ASSESSMENT

- The Clean Air Act requires EPA to assess the risk remaining after application of the final air toxics emissions standard. This is known as a residual risk assessment.
- Facilities in this source category mainly emit lead, arsenic, other HAP metals and organic HAP.
- EPA has concluded that risks due to HAP emissions from the major source category are unacceptable at the baseline largely based on modeled lead concentrations exceeding the lead National Ambient Air Quality Standards, along with elevated acute noncancer risks and cancer risks due to arsenic.
- However, the new and revised standards described above will reduce the risks to acceptable levels and ensure the NESHAP provides an ample margin of safety.

TECHNOLOGY REVIEW

- The CAA requires EPA to assess, review, and revise air toxics standards, as necessary, taking into account developments in practices, processes, and control technologies.
- The technology review of the standards for primary copper smelting major source facilities did identify developments that would further reduce HAP emission beyond the original NESHAP.
- The technology review of the standard for primary copper smelting area sources did not identify developments that would further reduce HAP emissions beyond the original NESHAP.

BACKGROUND

- The CAA requires EPA to regulate hazardous air pollutants, also known as air toxics, from categories of industrial facilities in two phases.
- The first phase is “technology-based,” where EPA develops standards for controlling the emissions of air toxics from sources in an industry group or “source category.” These maximum achievable control technology (MACT) standards are based on emissions levels that are already being achieved by the best-controlled and lower-emitting sources in an industry.
- Within eight years of setting the MACT standards, the CAA directs EPA to assess the remaining health risks from each source category to determine whether the MACT standards protect public health with an ample margin of safety and protect against adverse environmental effects. This second phase is a “risk-based” approach called residual risk. Here, EPA must determine whether more health-protective standards are necessary.
- Also, every eight years after setting MACT standards, the CAA requires EPA to review and revise the standards, if necessary, to account for improvements in air pollution controls and prevention.
- After the Louisiana Environmental Action Network v. EPA (LEAN) court decision issued on April 21, 2020, EPA is required to address any unregulated emissions from a major source category when the Agency conducts the 8-year technology review.
- Therefore, with regard to the LEAN decision, we are updating the 2002 major source NESHAP for primary copper smelting facilities as part of the technology review to address previously unregulated emissions.

FOR MORE INFORMATION

- Interested parties can download a copy of the final rule notice from EPA's website at the following addresses: <https://www.epa.gov/stationary-sources-air-pollution/primary-copper-smelting-area-sources-national-emissions-standards> and <https://www.epa.gov/stationary-sources-air-pollution/primary-copper-smelting-national-emissions-standards-hazardous-air>
- Today's action and other background information are also available electronically at <https://www.regulations.gov/>, EPA's electronic public docket and comment system.
 - The Public Reading Room is located at the EPA Headquarters library, room number 3334 in the EPA WJC West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m., Eastern Standard Time, Monday through Friday, excluding federal holidays.
 - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
 - Materials for this action can be accessed using Docket ID No. EPA-HQ-OAR-2020-0430.
- For further technical information about the rule, contact Amanda Hansen, EPA's Office of Air Quality Planning and Standards, at (919) 541-3165- or Hansen.Amanda@epa.gov.