NESHAP/Clean Air Act: U.S. Environmental Protection Agency Proposes Copper Smelting Residual Risk/Technology Review

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The United States Environmental Protection Agency ("EPA") issued a January 11th Federal Register Notice promulgating a proposed rule addressing Clean Air Act National Emission Standards for Hazardous Air Pollutants ("NESHAP") for copper smelting. See 87 Fed. Reg. 1616.

The proposed rule provides a residual risk and technology review ("RTR") for the copper smelting source category.

Section 112 of the Clean Air Act establishes a two-stage regulatory process to address emissions of hazardous air pollutants ("HAP") from stationary sources.

The first stage is required to identify categories of sources emitting one or more of the HAPs listed in Section 112(b) of the Clean Air Act. A technology-based NESHAP (i.e., a "MACT" standard) is then issued for those sources.

Within eight years of setting the MACT standard the second stage is undertaken. It requires EPA to undertake two different analyses. They include:

1. Technology Review
2. Residual Risk Review

The technology review requires that EPA review the technology-based MACT standards and revise them:

. . . as necessary (taking into account developments and practices, processes, and control technologies) no less frequently than every eight years, pursuant to Section 112(d)(6) of the Clean Air Act.

As to the residual risk review, EPA is required to evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

The source categories addressed by the proposed rule are:

- Primary Copper Smelting Major Sources/40 CFR part 63 – subpart QQQ
- Primary Copper Smelting Area Sources/40 CFR part 63 – EEEEEE

The Primary Copper Smelting Source category was defined as:

. . . any major source facility engaged in the pyrometallurgical process used for the extraction of copper from sulfur oxides, native ore concentrates, or other copper bearing materials.

Affected sources include:

- Concentrate dryers
- Smelting furnaces
- Slag cleaning vessels
- Converters
- Fugitive emission sources

EPA states in the preamble to the proposed rule that it is proposing:

- New emission standards in the major source NESHAP
- Removal of exemptions of periods of startup, shutdown, and malfunction

EPA states that based on the results of its risk review risk from emissions of air toxics from this major source category are unacceptable. The federal agency states it completed a demographic analysis indicating that elevated cancer risk associated with emissions from the category disproportionately affect communities with environmental justice concerns living near the facility.

The proposed rule provides for new emission standards that are stated to address currently unregulated emissions of HAP including:

- Particulate matter as a surrogate for particulate HAP metals
- Anode refining furnace point source emissions
- Particulate matter for roofline emissions from anode refining furnaces, smelting furnaces, and converters

New emission standards are proposed for mercury emissions from any combination of stacks from:

- Dryers
- Converters
- Anode refining furnaces
- Smelting furnaces

Test methods for roofline particulate matter emissions and amending the test methods to incorporate by reference three voluntary consensus standards are proposed.

A copy of the Federal Register Notice can be downloaded here.