



September 22, 2023

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20004

Re: National Emission Standards for Hazardous Air Pollutants: Primary Copper Smelting; EPA-HQ-OAR-2020-0430

The undersigned health, medical and nursing organizations appreciate the opportunity to provide comment on the proposed updated standards to reduce hazardous air pollutants from the copper smelting industry. Copper smelters produce massive amounts of extremely harmful pollutants, especially lead and arsenic, as well as beryllium, cadmium, chromium, manganese and nickel. The updates to this rule are long overdue and desperately needed. Please use this opportunity to significantly curb toxic emissions from these facilities to the maximum extent feasible.

Right now, U.S. Environmental Protection Agency (EPA) has the chance to make meaningful steps toward improving glaring environmental injustices. There are currently three primary copper smelters operating in the United States. Of these, two are by far the worst polluters – the Freeport and Asarco smelters. Both are located in close proximity to the San Carlos Apache Reservation. According to EPA's 2021 Proposed Residual Risk Assessment (RRA) for copper smelters, these two smelters alone emit "approximately 21 tons per year" of hazardous air pollutants, including 13 tons per year of lead and 2 tons per year of arsenic.¹ The majority of the hazardous air pollutants emitted from these smelters are toxic metals.

As EPA recognized in its original 2002 rule for copper smelters, arsenic and nickel are human carcinogens and lead, cadmium, and beryllium are probable human carcinogens.² According to the World Health Organization, long-term exposure to arsenic can cause cancer, including skin,

¹ 1 EPA, Residual Risk Assessment for the Primary Copper Smelting Source Category in Support of the 2021 Risk and Technology Review Proposed Rule (February 2021), EPAHQ-OAR-2020-0430-0051 (RRA) at 5.

² 67 Fed. Reg. 40,478, 40,481 (June 12, 2002).

bladder and lung cancer.³ It has also been associated with cardiovascular disease and diabetes. In utero and early childhood exposure to arsenic has been linked to negative impacts on cognitive development and increased deaths in young adults.

EPA has stated, “Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. The lead effects most likely to be encountered in current populations are neurological effects in children. Infants and young children are especially sensitive to lead exposures, which may contribute to behavioral problems, learning deficits and lowered IQ.”⁴ The Centers for Disease Control and Prevention has also stated, “No safe blood lead level in children has been identified. Even low levels of lead in blood have been shown to negatively affect a child’s intelligence, ability to pay attention, and academic achievement.”⁵

The health and developmental harms described above are only a small snapshot of the various ways that hazardous pollutants from copper smelters impact communities nearby. The people living on the San Carlos Apache Reservation are especially impacted because the two aforementioned smelters are less than ten miles from the Reservation.⁶ EPA’s demographic analysis indicates that Native Americans make up less than one percent of the population nationwide but twenty-seven percent of the population with elevated cancer risk as a result of exposure to copper smelter emissions.⁷ During the decades that the two smelters in close proximity to the San Carlos Apache Reservation have been operating, their emissions of lead, arsenic, and dioxins have built up in the nearby soil and water since these pollutants are persistent in the environment and bioaccumulative.⁸ The San Carlos Apache Reservation is an environmental justice community whose health and future are being damaged by these toxic pollutants.

Moreover, copper smelters’ emissions are largely a function of their production levels, and copper production levels could increase significantly as the demand for copper rises. Copper is used in electric vehicles, new transmission lines, wind energy generation, and solar energy generation. It is an important resource needed in the United States’ transition to a clean energy economy. We must do everything possible to reduce the pollution emitted from the copper smelting process and prevent harm to people living and working nearby.

Unfortunately, EPA’s proposal does not go far enough to reduce copper smelter pollution. EPA estimates that when fully implemented, the proposed rule will reduce annual nationwide HAP emissions from the major source category by approximately 23 percent per year. While that is

³ Fact sheet about health impacts of arsenic, WHO, available at <https://www.who.int/news-room/fact-sheets/detail/arsenic>

⁴ Basic Information about Lead Air Pollution, EPA, available at <https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution>

⁵ Health Effects of Lead Exposure, CDC, available at <https://www.cdc.gov/nceh/lead/prevention/health-effects.htm>

⁶ Request for Tribal Consultation Regarding Residual Risk and Technology Review for Primary Copper Smelting, Sam Carlos Apache Reservation, 2022 available at https://downloads.regulations.gov/EPA-HQ-OAR-2020-0430-0139/attachment_2.pdf

⁷ 87 Fed. Reg. 1616, 1641 (Jan. 11, 2022) (Table 3).

⁸ Request for Tribal Consultation Regarding Residual Risk and Technology Review for Primary Copper Smelting, Sam Carlos Apache Reservation, 2022 available at https://downloads.regulations.gov/EPA-HQ-OAR-2020-0430-0139/attachment_2.pdf

an improvement, EPA's proposed rule will still allow copper smelters to continue emitting many tons of hazardous air pollutants each year, including lead and arsenic. Furthermore, if copper smelters' production increases in the coming years as predicted, their toxic emissions will be even higher.

It bears repeating that no safe blood lead level in children has been identified. Allowing any preventable lead or other toxic pollutants to be emitted from copper smelters is perpetuating environmental injustice. It is both technologically and economically feasible to achieve much greater pollution reductions than those outlined in EPA's proposed rule, and we urge you to strengthen it.

For example, EPA states that the Freeport smelter could reduce its emissions of metals by 7.6 tons by installing a wet electrostatic precipitator on its main stack.⁹ We strongly urge you to finalize particulate matter emission standards (as a surrogate for metal hazardous air pollutants) based on the use of a wet electrostatic precipitator, which has been shown to significantly reduce pollutants.

We appreciate EPA's decision to propose updates to the existing standards for copper smelters, and we urge the agency to strengthen the standards and quickly finalize them.

Signed,

Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Lung Association
American Thoracic Society
Children's Environmental Health Network
National Association of Pediatric Nurse Practitioners
Public Health Institute

⁹ 87 Fed. Reg. at 1643.