

FACTSHEET: EPA'S OBSOLETE AIR TOXICS STANDARDS ARE A THREAT TO CHILDRENS' HEALTH AND AN ENVIRONMENTAL INJUSTICE

Each year the 11 steel mills operating in the United States emit more than 500 tons of hazardous air pollution into neighboring communities. These emissions could be substantially reduced or eliminated but, because EPA's emission standards for steel mills' emissions are so outdated and inadequate, they remain largely uncontrolled. EPA's failure to invest in steel mill communities puts at risk children's health and their ability to learn and grow. Because steelworkers are doubly exposed to the toxic emissions – at work and at home – EPA's inaction puts their health at risk as well. And because many steel mills are sited in communities of color and low income communities, EPA's inaction exacerbates long-standing environmental injustice.

Lead Emissions from the Steel Mills in Northwest Indiana.

- According to EPA, the 3 of the 4 mills clustered in Northwest Indiana emit more than 11 tons of lead each year from their smokestacks, more than 3.5 tons per year apiece.¹ These are the 3 mills in the industry that still operate sinter plants – an extraordinarily dirty process in which oily metallic wastes from the mills are cooked into a powder for reuse. The other 8 mills do not use sinter plants.
- EPA's data further indicate that these same 4 mills each release another 6.7 tons per year of lead, on average, as fugitive emissions.^{2, 3}

¹ EPA, Residual Risk Assessment for the Integrated Iron and Steel Manufacturing Source Category in Support of the 2020 Risk and Technology Review Final Rule, EPA-HQ-OAR-2003-1083 (RRA), Appendix 1, Summary of Integrated Iron and Steel Point Source Emissions Estimates for Risk and Technology Review (“Emissions Memo”) at 7-8.

² EPA, Ample Margin of Safety Analysis for Nonpoint Sources in the II&S Industry, EPA-HQ-OAR-2003-0953 (“AMOS Memo”) at 7, Table 3-1 (Non-Point Source Emissions).

- Total lead emissions from the steel mills into the communities between East Chicago and Gary, Indiana exceed 35 tons each year.
- No other community in the country is exposed to a cluster of 4 polluters that emit lead at anything even close to these rates. By comparison, even secondary lead smelters emit far less lead – on average less than half a ton per plant per year.⁴
- People are exposed to steel mills’ lead emissions when they breathe. Because lead emissions are deposited into water on onto soil, people are also exposed to lead emissions by drinking water, eating food, gardening, and playing outside. And because the lead that people are exposed to persists and builds up in their bodies, unborn babies are exposed to lead in their mothers’ wombs and nursing infants are exposed to lead in their mothers’ breast milk.
- The serious and long term harm caused by exposure to lead, especially for babies and children, is well established. The Centers for Disease Control (CDC), for example, states that exposure can cause “damage to the brain and nervous system,” “slowed growth and development,” “learning and behavior problems,” and “hearing and speech problems.”⁵

³ EPA states that it derived its estimate of steel mills’ fugitive hazardous air pollutant emissions by estimating the fugitive particulate matter (PM) emissions from steel mills and then estimating the percentage of those PM emissions made up of hazardous air pollutants. AMOS Memo at 6-7. Because all the hazardous air pollutants EPA estimated in this fashion are emitted as particulate matter and because metals are the only hazardous air pollutants that steel mills emit as particulate matter, it follows that all 295 of fugitive hazardous air pollutants emitted by steel mills are metals. Lead makes up slightly more than 25% of the metals emitted from steel mills’ stacks (excluding sinter plant emissions). Applying this same ratio to steel mills’ fugitive emissions, it follows that 25% of the 295 tons per year of fugitive hazardous air pollutant emissions from steel mills, or 74 tons per year, are lead. On average, the nation’s 11 steel mills are each emitting approximately 6.7 tons per year of fugitive lead emissions.

⁴ 77 Fed. Reg. 563, 575 (January 5, 2012).

⁵ <https://www.cdc.gov/nceh/lead/prevention/health-effects.htm>