



# Northern Alaska Environmental Center

830 COLLEGE ROAD, FAIRBANKS, ALASKA 99701-1535

PHONE: (907) 452-5021 FAX: (907) 452-3100

www.northern.org ♦ [info@northern.org](mailto:info@northern.org)

## METAL MINING AND THE TOXICS RELEASE INVENTORY

Metal (or hardrock) mining is one of the largest producers of toxics in the United States. According to the US Environmental Protection Agency's Toxics Release Inventory - metal mining produces over 50% of toxics reported through the TRI. These toxics include heavy metals – such as lead, cadmium, zinc, copper and mercury – that are liberated from rock and ore during the mining process, as well as chemicals – such as ammonium sulfate, hydrogen peroxide, hydrochloric acid and cyanide – which are used to leach metals from the crushed ore.

Established in 1986 by the Emergency Planning and Community Right-to-Know Act<sup>1</sup> (EPCRA) and administered by the EPA, TRI requires industrial facilities to disclose to the public the levels of pollutants they have discharged annually into the air, water, and land or transferred to other sites for incineration, recycling, and disposal (MPC, 2000). Exempted from reporting to the TRI until 1999, the mining industry continues to fight reporting – largely because they rank highest among all US industries for toxics releases.

In Alaska, the state's only operating metal mines occupy places one, two and three on the state's Top Ten list of toxics producers. They are:

Mine	Location	Total On-site releases* (pounds)
1.Red Dog zinc-lead mine	Northwest Arctic	373,760,846
2.Greens Creek lead-silver mine	Admiralty Island, SE Alaska	55,597,757
3. Ft. Knox gold mine	Fairbanks, Alaska	1,433,854

\*includes air emissions, surface water discharges, wells, landfills and other on-site land releases (e.g. waste rock dumps)

The Mineral Policy Center has compiled some startling facts about the US metal mining industry's pollution record. Hardrock mining creates up to two billion tons of solid waste every year in the United States, more than nine times the municipal solid waste produced by all U.S. cities.<sup>2</sup> These wastes contain lead, arsenic, cadmium and copper, which are linked to cancer and other human health effects. Mining waste has also polluted more than 12,000 miles of our nation's waterways and 180,000 acres of our lakes and reservoirs.<sup>3</sup> This hazardous waste is what is reported in TRI.

TRI gives citizens solid evidence that can help ensure that mining companies behave in environmentally responsible ways. To increase effective public use of the TRI, the Mineral Policy Center has published *A Citizen's Guide– TRI Toolkit, Using the Toxics Release Inventory to Promote Environmentally Responsible Mining in Your Community*, by Francine Madden and Bettina Camcigil. This publication can be downloaded from their website [www.mineralpolicy.org](http://www.mineralpolicy.org).

<sup>1</sup> The purpose of EPCRA is to promote emergency planning, to minimize the effects of an accident such as occurred at Bhopal, and to provide the public with information on releases of toxic chemicals in their communities.

<sup>2</sup> U.S. EPA, Report to Congress, *Wastes from the Extraction and Beneficiation of Metallic Ores, Phosphate Rock, Asbestos, Overburden from Uranium Mining and Oil Shale*, Washington D.C., December 1985, p. 6-6.

<sup>3</sup> Robert L.P. Kleinmann, "Acid Mine Drainage," *Engineering and Mining Journal*, July 1989, p. 161.