

NPL Site Narrative for International Smelting and Refining

INTERNATIONAL SMELTING AND REFINING Tooele, Utah

Conditions at Proposal (April 23, 1999): The International Smelting and Refining (ISR) site is located on the west flank of the Oquirrh Mountains near the mouth of Pine Canyon, approximately 2 miles northeast of Tooele, in north-central Utah. The canyon is drained by Pine Creek, which flows over an alluvial fan at the mouth of the canyon. The smelter and distal tailings ponds were located on the alluvial fan. Copper smelting began in 1910 under the ownership of ISR, with a capacity of 4,000 tons of copper ore per day. Two years later copper ore supplies declined and ISR built a lead smelter. In 1915, Anaconda purchased the ISR subsidiary. Over several years the owners added a lead-zinc sulfide flotation mill and a slag treatment plant for lead and zinc recovery. Copper production ceased in 1946, when the copper smelter closed. Lead smelting ceased in early 1972 and the site was reclaimed in 1986. An estimated 650,000 tons per year of tailings, slag, and flue dust were produced during the early years of operations at the ISR site.

Livestock deaths in the area of the site have been attributed to arsenic, lead, and sulfuric acid poisoning. The State of Utah Department of Environmental Quality, through personal communication, also documented 20 cattle deaths due to cadmium poisoning. During a 1985 site inspection, EPA noted dust blowing off tailings. Emissions of metal-containing smoke and acid gases were reported during ISR operations.

The site comprises about 1,200 acres. Site sources consist of approximately 330 acres of tailings, 27.5 acres of metals-contaminated slag, 13 acres of settlings ponds, approximately 50 acres of landfills, and 125 acres of smelter wastes associated with the site operations. Investigations indicate the presence of arsenic, cadmium, copper, lead, mercury, and zinc in contaminated soils, tailings, and slag.

In 1985, a consultant completed a Reclamation/Stabilization Plan (RSP) for the Carr Fork and ISR sites. Samples were collected from wells and springs down-gradient of the ISR property, and from many on-site and off-site soils and tailings, waste piles, and dumps. This investigation noted arsenic and lead concentrations in ground water and surface water samples that exceeded maximum contaminant levels for drinking water.

The State of Utah performed an Expanded Site Inspection (ESI) in 1996. The ESI Analytical Results Report indicates that soil caps overlying numerous source areas are eroding or are poorly vegetated. The source areas do not have containment features, and numerous tailings piles are deposited along the banks of Dry Creek, an ephemeral drainage south of the site and Pine Creek. Data from the ESI indicate observed release concentrations of several metals in samples collected from soil, surface water, and ground water.

Soils in Lincoln, Utah, about 1.5 miles northwest of the site, have been affected by emissions from the site. A 1985 EPA study documented dust blowing off of tailings piles and during the 1995 DERR ESI, children were observed playing on bare soils. The site is accessible and used for recreation by off-road

motorcyclists and all-terrain vehicle users. The area surrounding and including the ISR site was designated the "Carr Fork Reclamation and Wildlife Management Area" in 1994.

Status (July 2000): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.