Sharon Steel Superfund Site

Midvale, Salt Lake County, Utah

EPA ID: UTD980951388



View of the west slope of the Operable Unit 1 cap parallel to the Jordan River

Background

The Sharon Steel Corporation was a milling operation in Midvale, UT originally owned and operated by the U.S. Smelting, Refining, and Mining Company and later known as UV Industries Incorporated. The site engaged in milling operations from 1905 to 1971 and approximately ten million cubic yards of tailings were disposed of at the site. Mill tailings are the materials (e.g., waste sand containing heavy metals) left over after separating the material of interest from the ore.

Health concerns related to contaminants were first identified in 1982 when the Salt Lake County Health Department (known at the time as the Salt Lake City and County Health Department) and the Utah Department of Health were notified that local citizens were using tailings in sandboxes and gardens. The Utah Department of Environmental Quality (UDEQ) tested residential sandboxes in the area which were known to contain tailings from the plant, discovering elevated concentrations of lead. The U.S. Geological Survey tested groundwater and found high levels of arsenic. EPA added the Sharon Steel site to the National Priorities List (NPL), commonly known as "Superfund", in 1990.

For investigation and remediation purposes, the area (totaling approximately 460 acres) was divided into two operable units: operable unit one (OU1) encompasses the former milling facilities, tailings pile, and groundwater, and operable unit two (OU2) consists of the surrounding residential and commercial properties. Action levels for lead and arsenic in the soil of OU2 properties were set at 500 parts per million (ppm) and 70 ppm, respectively. Properties were remediated if contaminant levels exceeded either value. Remediation included the demolition of remaining mill site structures in OU1, as well as the removal of contaminated soil from the adjacent OU2 properties and placing them onto the mill site tailings pile. A liner and clean fill soil covered the tailings pile, which was seeded for re-vegetation. Affected OU2 properties received clean fill soil and replacement vegetation. Following remediation, the site was removed from the NPL in 2004.

Documents

Public Health Assessment (1986)



The Agency for Toxic Substances and Disease Registry (ATSDR) completed a public health assessment of the Sharon Steel Superfund Site in 1986 to determine if a public health risk existed from off-site migration of mine tailings containing heavy metals.

- ATSDR determined that a threat to public health existed via inhalation and skin contact from both wind-blown tailings and intentional use of tailings in sandboxes and gardens, and issued the following recommendations:
 - Determine the possible interconnection between a shallow, unconfined aquifer and a deep, confined aquifer. The deep aquifer is used as a municipal water source.
 - Sample the deep, confined aguifer for heavy metal contamination.
 - Initiate dust control measures to prevent off-site migration of contaminated tailings.
 - Discourage residents from using contaminated soil from the site.
 - Characterize the extent of off-site soil contamination via additional soil sampling.

 EPA addressed these and other concerns during the remedial investigation and remediation process. By 1999, EPA and UDEQ had cleaned the site, and it was deleted from the NPL in 2004.

Contaminant Information

- Arsenic
 - o ATSDR: Arsenic ToxFAQs
 - o ATSDR: Arsenic ToxZine
- Lead
 - o ATSDR: Lead ToxFAQs
 - ATSDR: Lead ToxZine
 - o EPA: Lead

Additional Links

- Environmental Protection Agency: Sharon Steel
- Utah Department of Environmental Quality
 - O Division of Environmental Response and Remediation
 - CERCLA Branch
- Salt Lake County Health Department
- City of Midvale