

# NPL Site Narrative for Alark Hard Chrome

## ALARK HARD CHROME Riverside, California

**Conditions at Proposal (July 27, 2000):** The Alark Hard Chrome site occupies approximately 0.25 acre in a light industrial area of the city of Riverside. An electroplating shop operated on site from 1971 to 1985. Eighteen open plating tanks were housed in the front and middle rooms of the shop. The tanks were set directly on the ground in "cut outs" in the concrete floor. As metal parts were lifted out of each tank, the plating solution would drip and spill onto the floor and into the 3-inch to 5-inch gap between the tank and the floor. Plating solutions were also allegedly discharged directly into a 4-foot wide by 40-foot deep pit located in the middle room. Water from washdowns in the plating areas flowed into three floor drains that were routed to a 500-gallon underground holding tank located outside the rear of the building. The back room of the shop housed grinders and polishers. During a 1982 investigation of the site, personnel from the Riverside County Department of Health observed "pools of chemicals" outside the back door of the shop. In 1985, the owners of Alark Hard Chrome ceased operations and took the plating tanks off site. The underground holding tank was also taken off site sometime in the mid- or late-1980s.

In 1990 and 1991, a contractor to the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) conducted a subsurface soil investigation at the site. One hundred three (103) soil samples were collected from 24 boreholes drilled to depths ranging from 7.5 feet below ground surface (bgs) to 60 feet bgs. Analytical results indicated the presence of total chromium and hexavalent chromium at concentrations up to 4,380 milligrams per kilogram (mg/kg) and 1,100 mg/kg, respectively, to depths of at least 40 feet bgs in the middle room, 15 feet bgs in the back room, and 20 feet bgs adjacent to the former underground holding tank and outside the back door. Cadmium, cyanide, and nickel were also detected at elevated concentrations, but at fewer sample locations.

In 1994, a contractor to DTSC excavated 1,207.73 cubic yards of contaminated soil from a 26-foot wide by 30-foot long area in the middle room to depths ranging from 27 to 40 feet bgs. Post-excavation sampling results, as well as the 1990 and 1991 sampling results, indicate that contaminated soil is still present beneath the excavated area in the middle room and in other areas of the site.

Ten ground water monitoring wells have been installed in the vicinity of the site. Analytical results from a 1995 DTSC sampling event indicated the presence of total chromium and hexavalent chromium at concentrations up to 0.21 milligrams per liter (mg/l) and 0.27 mg/l, respectively, in the two monitoring wells located within 20 feet of the middle room of the shop. These two wells are screened in alluvial deposits. Eighteen municipal drinking water wells, which draw ground water from the Riverside basin alluvial deposits, are located within 4 miles of the Alark Hard Chrome site.

Surface runoff from the site enters a storm drain system that discharges into Springbrook Channel approximately 0.5 mile northwest of the site. The channel terminates in a diversion dam at Fairmount Lake, approximately 200 feet downstream of the discharge point. During periods of heavy rainfall, the flow in Springbrook Channel exceeds the capacity of the diversion dam, resulting in storm drain water flowing from the channel into Fairmount Lake. In 1992, a contractor to the U.S. Environmental Protection Agency (EPA), collected sediment samples from Springbrook Channel and Fairmount Lake. Total chromium was detected at concentrations of 6.5 mg/kg in the sample collected from the channel 300 feet upstream of the discharge

point and 28.7 mg/kg in the sample collected from Fairmount Lake. Fairmount Lake flows into Lake Evans. Both are urban fishing lakes that are stocked with trout and catfish by the California Department of Fish and Game.

**Status (December 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.