

NPL Site Narrative for Boomsnub/Airco

BOOMSNUB/AIRCO Vancouver, Washington

Conditions at Proposal (January 18, 1994): The Boomsnub/Airco site is located in a mixed light industrial/residential area of Vancouver, Washington, covering approximately 14 acres. The two facilities have been aggregated into one site because contamination from both facilities has resulted in a commingled ground water plume consisting of volatile organic compounds (VOCs), and chromium. Chromium contamination of the soils at the Boomsnub site resulted from improper waste handling and disposal practices from metal plating operations. In December 1989, chromium was mobilized by a water line break that released 300,000 gallons of water. In January 1990, chromium levels in one well increased from 0.2 parts per million (ppm) to 750 ppm. In April 1990, Boomsnub began pumping and treating ground water from that well, installed additional monitoring wells, and tested neighboring domestic wells. The company could not afford the needed remedial activities and applied for financial relief in August 1990. Because of the severity of the problem, the Washington Department of Ecology (WDOE) began paying the majority of cleanup costs after this date.

Airco Gases (Airco) is an active gas manufacturing plant that has been in operation at this location since 1964. Airco manufactures compressed gas products, including liquid nitrogen, liquid oxygen, and liquid argon. Airco also stores and distributes other specialty gases. In 1991, investigation of the Boomsnub site showed the presence of VOCs in the ground water. The ground water monitoring wells in which elevated levels of VOCs were detected are located hydraulically downgradient from Airco. The VOCs detected in the ground water do not appear to be associated with Boomsnub's operations.

The plume is in an unconfined alluvial aquifer that overlies the confined Troutdale aquifer which is used as a regional drinking water source. The county wells at risk from the chromium and VOC plume provide drinking water to more than 150,000 people. Chromium levels in the alluvial aquifer have been as high as 2,000 ppm in onsite wells and as high as 85 ppm one half mile downgradient from the site. VOC levels are in the ppm range in onsite and downgradient wells. To date, the chromium plume has migrated over 3,000 feet. A clay and silt aquitard separates the two site aquifers; however, there are known breaches in the aquitard in the region.

WDOE's emergency interim action at Boomsnub consists of pumping and treating the ground water to minimize offsite chromium migration while concurrently defining the extent of contamination. The interim action has included installing over 40 monitoring wells screened at different depths to define the plume, a reverse-osmosis and ion-exchange treatment system for chromium removal, a ground water extraction network, a pressurized sewer line for discharge of treated water, and an air stripper and granular activated carbon treatment system for removal of VOCs. In April and October 1992, two independent environmental investigations were completed by Airco. In March 1993, WDOE and Airco agreed to a Model Toxics Control Act (MTCA) Agreed Order. The agreed order required that a site investigation be conducted requiring additional soil and ground water sampling. This latest site investigation, completed in July 1993, establishes Airco as a contributor to the contaminated ground water.

Status (April 1995): EPA operation of the ground water extraction/treatment system has proceeded smoothly and, with system enhancements added during an EPA removal action, pumping rates have

increased to treat greater amounts of contaminated ground water and maintain discharge to the City of Vancouver publicly owned treatment works (POTW) within the POTW permit limit. A major ground water sampling event has been scheduled for late April 1995 under "high ground water" conditions. This activity begins ground water characterization efforts for other compounds as well as chromium and VOCs. Based on the results, another similar round of sampling may be conducted under "low ground water" conditions in late September 1995. An ongoing potentially responsible party search for others in the Hazel Dell area who may have caused or contributed to the ground water contamination will assist EPA in determining future investigative activities.

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.