

NPL Site Narrative for Union Pacific Railroad Co. Tie-Treating Plant

UNION PACIFIC RAILROAD CO. TIE-TREATING PLANT The Dalles, Oregon

Conditions at proposal (October 26, 1989): The Union Pacific Railroad Co. Tie-Treating Plant covers 83 acres in a mixed commercial and residential area just south of the Columbia River in the City of The Dalles, Wasco County, Oregon. Union Pacific owned the wood treatment facility from 1926 to late 1987, when equipment and structures were purchased by Kerr-McGee Chemical Corp.; however, Union Pacific retained ownership of the land and responsibility for all pre-1987 contamination of facility soil and ground water. The plant primarily treated railroad ties for Union Pacific, but also treated wood for other commercial users across the United States. From 1959 to November 1987, J. H. Baxter Co. operated the plant for Union Pacific.

The facility treated wood with ammoniacal copper arsenate, creosote, a creosote/fuel oil mixture, and pentachlorophenol. Spills of treatment solutions on-site and waste water ponds no longer in use are thought to be the main source of contamination of soil and ground water. Improvements in the waste water treatment system allow the site to operate as a zero discharge facility.

In 1984, Union Pacific began a comprehensive investigation of soil and ground water at the site. Creosote components, pentachlorophenol, fuel oil, ammonia, volatile organic compounds (VOCs), and arsenic are the major contaminants found in soil and ground water at the site. Contamination by arsenic and VOCs is greatest in the shallow and intermediate aquifers beneath the site. Organic contaminants, including phenanthrene and naphthalene, have been detected in the two deep confined aquifers beneath the site. Ground water is used by over 11,000 people within 3 miles of the site. The Dalles has increased its monitoring of the municipal supply wells.

In May 1989, Union Pacific signed a Consent Order with the Oregon Department of Environmental Quality (DEQ) and agreed to undertake a remedial investigation/feasibility study (RI/FS) to determine the type and extent of contamination at the site and identify alternatives for remedial action. The RI/FS is scheduled to be completed by mid-1991.

Status (August 30, 1990): DEQ approved Union Pacific's workplan for the RI/FS in January 1990. The investigation is now underway.

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/toxfaq/index.asp) (<http://www.atsdr.cdc.gov/toxfaq/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.