



Selma Pressure Treating Superfund Site Profile

**Site
Description**
*former wood
treating facility*

Site Size
18 acres

**Primary
Contaminants**
*arsenic, chro-
mium, PCP,
dioxin*

**Potential
Range of
Health Effects**
*increased cancer
risk*

**Nearby
Population
Affected**
*residential and
business areas,
City of Selma*

EPA Proposes Change In Groundwater Cleanup Method At Selma Pressure Treating Superfund Site

This summer, the U.S. Environmental Protection Agency (EPA) will restart cleanup activities at the Selma Pressure Treating Superfund site located near Fresno, California.

WE ARE ISSUING this fact sheet to report on the status of the cleanup efforts and to announce a change in the groundwater cleanup method presented in the Record of Decision (ROD). This change to the ROD is called a Significant Difference; the Draft Explanation of Significant Differences is now available at the Selma Branch of the Fresno County Library or through the EPA Superfund Records Center.

The Site

The Selma Pressure Treating site is located approximately 15 miles south of the City of Fresno, adjacent to the southern city limits of Selma. The site is located

at the corner of Dockery Avenue and Golden State Boulevard, and is in a transition zone between agricultural, residential and industrial areas. It covers 18 acres: a four-acre abandoned wood treating

facility and 14 acres of vineyards that were used for drainage. The town of Selma, with a population of approximately 10,000 people, has 12 residences and businesses within a quarter mile of the site.



Wood treating began at the site in 1942. In those days, the wood preserving process used at the site involved dipping wood into a mixture of pentachlorophenol (PCP) and oil, then drying the wood on open racks to let the excess liquid drip off. In 1965, wood treating operations changed to a pressure treating process that consisted of conditioning the wood and impregnating it with chemical preservatives. Chemical preservatives used at the site included fluor-chromium-arsenate-phenol, chromated copper arsenate, PCP, copper-8-quinolinolate, LST concentrate, Woodtox 140

RTU, and Heavy Oil Penta 5% Solution. Before 1982, wastes generated from wood treating activities were disposed of in a variety of ways: discharged into drainage and percolation ditches, into dry wells, and onto the nearby vineyards, poured into an unlined pond or a sludge pit, or spilled onto open ground. Wood treating operations stopped in February 1994.

Past Actions

The soil and groundwater at this site were contaminated before federal and state regulations required proper handling and disposal of wood treating chemicals. In

September 1983, EPA placed this site on the Superfund National Priorities List (NPL) of hazardous waste sites. This started a process of investigating the extent of contamination at the site and developing a cleanup plan.

Although a number of chemicals were used in the wood preserving process, cleanup of this site focuses primarily on arsenic, chromium, copper, PCP and dioxin, since these contaminants were found in the soil at levels that threaten human health and the environment. In the groundwater, chromium was the only contaminant of concern found at concentrations exceeding the maximum contamination level (MCL) considered safe for drinking water. Groundwater investigations found an area of chromium contamination (called a "plume") extending downward from the site to the southwest. The southern boundary of the plume is approximately 1700 feet southwest of the facility.

In 1988, EPA issued a final Remedial Investigation and Feasibility Study that described the soil and groundwater contamination at, and developed cleanup standards for, the site. In September 1988, EPA signed a ROD that

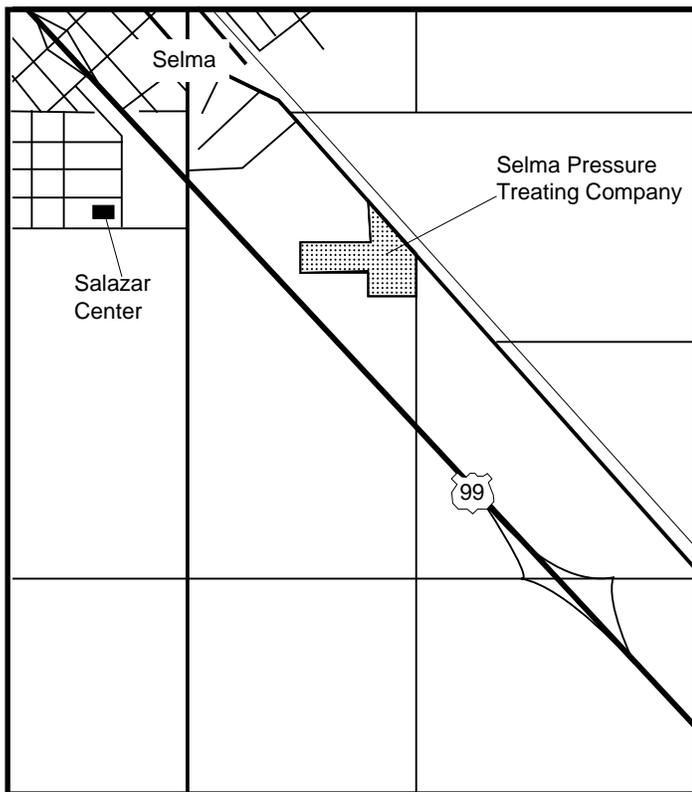
announced the cleanup remedies selected for the Selma Pressure Treating Superfund Site.

Soil Cleanup

The soil cleanup remedy selected in the ROD involved fixing the soil (stabilization and solidification) to prevent further spread of the contamination, then covering the treated soils with concrete to provide additional protection from surface disturbance and surface water infiltration.

Using this cleanup method, 12,000 cubic yards of contaminated soil were treated in 1993. During the cleanup activities, it became clear that there was much more contamination than originally thought. Additionally, dioxin was detected in the vineyard and within the wood treatment area at concentrations significantly higher than those found during previous investigations. Given the limited funding set aside for the soil cleanup, various contracting constraints, and the changes that were needed in the ROD to account for the additional work, cleanup activities stopped until these issues could be resolved.

During summer 1995, EPA conducted extensive soil sampling to further define the extent of soil contamination at the site.



Site Location

Tests found elevated concentrations of PCP, dioxin, and arsenic in the subsurface regions of the site. This has caused EPA to re-evaluate the current cleanup objectives; we are now exploring alternative cleanup methods to address the remaining soil contamination.

Groundwater Cleanup

The only contaminant of concern found in the groundwater at the site is chromium. The ROD established the cleanup standard for chromium in the groundwater to be the MCL of 50 ppb (parts per billion). The cleanup remedy selected for the groundwater involves pumping the groundwater from the aquifer, passing the water through a treatment plant, then reinjecting the treated water back into the aquifer.

In 1994, EPA sampled existing groundwater monitoring wells and various residential wells downgradient from the site for chromium, copper, arsenic, PCP and dioxin. Although low levels of dioxin were detected in some wells, only chromium exceeded the maximum contamination level considered safe for drinking water.

Recently, the California Department of Toxic Substances Control

sampled tap water from nearby residences to further test for chromium contamination. Chromium

aquifer from reinjection of treated water. EPA re-evaluated the groundwater treatment system and

groundwater to occur by percolation. EPA considered percolation as an alternative to reinjection because percolation more closely mimics natural aquifer recharge, and thereby reduces the risk of creating unwanted subterranean water movement or displacement of the contaminated plume. EPA determined that the site conditions are favorable for using a percolation pond to recharge the aquifer. EPA is now planning to return the treated groundwater to the aquifer using percolation ponds in place of the reinjection system. An Explanation of Significant Differences that discusses this change in greater detail is currently available for public comment.

Upcoming Activities

This summer, EPA will return to the site to continue soil cleanup activities and begin construction of the groundwater treatment system. Activities will include fencing off portions of the site, taking down the abandoned wood treatment structures, constructing two percolation ponds and installing a groundwater treatment plant and four extraction wells. During the construction, there will be a field office on site with a representative available to address any questions or concerns. ■

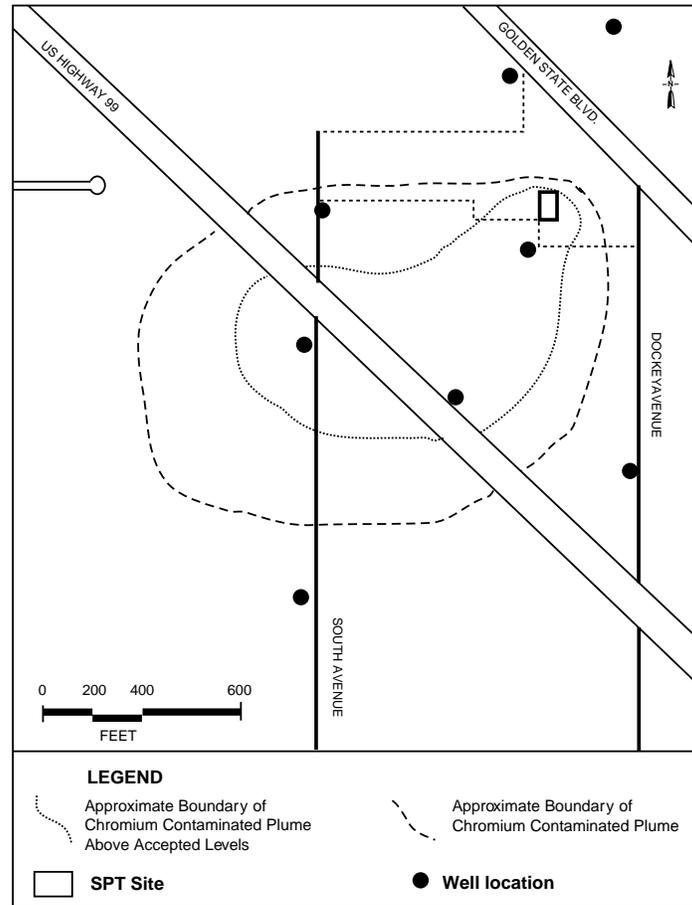


Figure 2: Chromium Groundwater Plume

either was not found in these tap water samples or was found in concentrations below drinking water standards.

Explanation of Significant Differences

During the design phase for the groundwater treatment system, EPA became concerned that there was insufficient data to predict the impact to the

relevant data, and was concerned that the treated water, if recharged to the aquifer via reinjection, might cause the plume of chromium to spread.

In 1996, EPA conducted a series of field tests to examine infiltration rates in the subsurface regions of the site. The results indicate that the infiltration rates are high enough to allow for successful recharge of the treated

For More Information

If you have questions about the Selma site or any of the work discussed in this fact sheet, contact either of us at the numbers below or TOLL-FREE at **(800) 231-3075**.

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*Update on Selma
Pressure Treating
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