



OMEGA CHEMICAL SUPERFUND SITE

U.S. Environmental Protection Agency \$ Region 9 \$ San Francisco, CA \$ February 2009

EPA Selects Cleanup Plan for Soils at Omega Site

The United States Environmental Protection Agency (EPA) and a group of potentially responsible parties (PRPs) have been conducting an investigation of the **groundwater** and soil contamination at the Omega Chemical Superfund Site in Whittier, CA. This fact sheet summarizes the Record of Decision (ROD) signed on September 30, 2008 to address the contaminated soils on and near the former Omega property.

A ROD is a document that formalizes EPA's decision to implement a specific cleanup action. The ROD for the Omega Site also contains a summary of EPA's response to comments received during the 30-day public comment period as well as comments received during the public meeting held on June 24, 2008. To review the full ROD document, please visit the Site's information repository or view information online at www.epa.gov/region09/OmegaChemical.

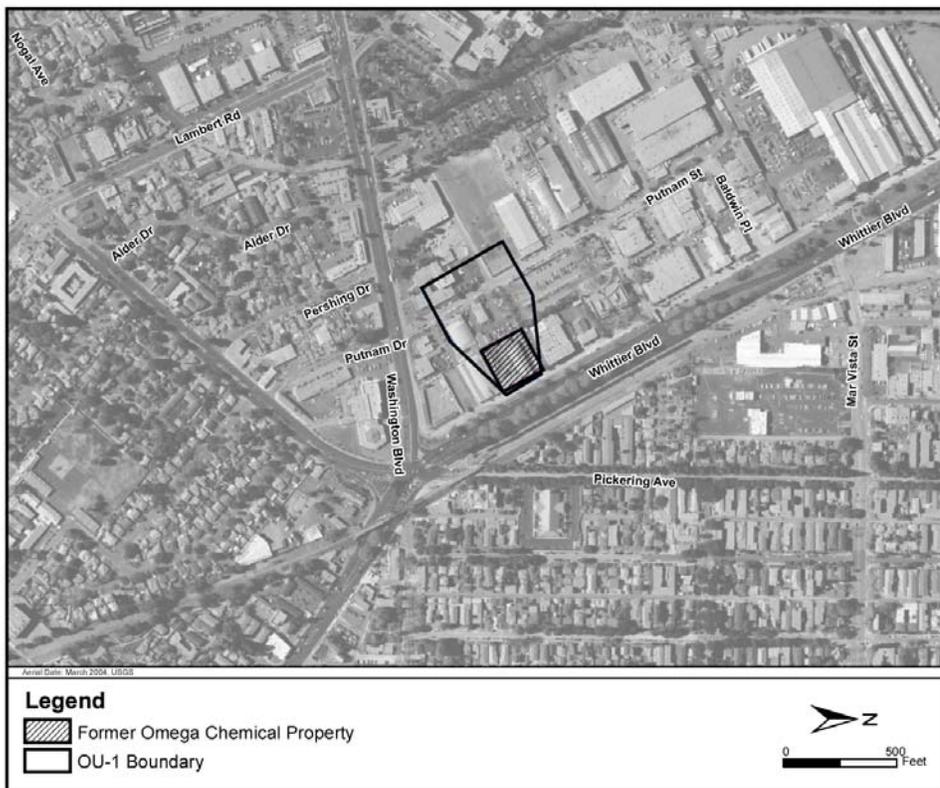


Figure 1: Omega Chemical Superfund Site OU-1 Location Map

Site Background

The Omega Chemical Corporation was a solvent and refrigerant recycler that operated from approximately 1976 to 1991. Drums and bulk loads of waste solvents and other chemicals from various industrial activities were processed at the Omega property to form commercial products. As a result of spills and leaks, the soil and groundwater beneath the Omega property became contaminated. In 1995 a group of PRPs, later known as the Omega Chemical Site PRP Organized Group (OPOG), performed the removal of approximately 2700 drums under EPA oversight.

To better handle large site cleanups, EPA often separates cleanup actions into parts called Operable Units. At the Omega Chemical Superfund site, Operable Unit One (OU-1) includes soil and groundwater contamination on and near the former Omega property (see Figure 1). In 2001, EPA signed a settlement agreement called a Consent Decree (CD) with OPOG to investigate soil and groundwater contamination within OU-1.

OPOG completed a **remedial investigation** (RI) for OU-1 soils in November 2007, which evaluated the nature and extent of soil and soil vapor contamination associated with

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the former Omega property. The **feasibility study** (FS), completed in May 2008, describes potential soil cleanup alternatives and includes a detailed analysis of each alternative. EPA's preferred cleanup alternative, described in this fact sheet, was selected based on the results of the FS and public comments.

The CD also specifies that OPOG will implement an interim groundwater remedy to contain the existing contaminated groundwater within OU-1. Construction of the groundwater treatment system is underway and is expected to be complete in 2009.

Operable Unit Two (OU-2) consists of the groundwater contamination that has migrated downgradient (moving southwest) of OU-1. EPA is near completion of the OU-2 remedial investigation, and the results will be released for public review in early 2009. The OU-2 FS is expected to be complete in late 2009.

Contaminants of Concern

The **contaminants of concern** (COCs) at the Omega site are **volatile organic compounds** (VOCs), meaning that they evaporate readily in air. The primary VOCs of concern are tetrachloroethene (PCE), trichloroethene (TCE), and 1, 1-dichloroethene (1, 1-DCE). PCE and TCE are solvents that have been widely used by industry as cleaning and degreasing agents. 1, 1-DCE is not commonly used in commercial products but can be formed when other VOCs degrade (break down) over time. Another group of VOCs, freons, are also contaminants at the Omega site. Freons are used as coolants and pressurizers in spray can products.

As part of the feasibility study process, the following remedial action objectives were developed. These are the primary goals that the OU-1 cleanup plan is designed to meet:

- Reduce or eliminate the **vapor intrusion** risk associated with VOC vapors in contaminated soils;
- Reduce or eliminate the risk associated with direct exposure to, contact with and/or ingestion of contaminated soils; and
- Reduce or eliminate contaminant migration (movement) to groundwater to ensure protection of the groundwater resources.

EPA's Selected Cleanup

EPA has chosen to install a **soil vapor extraction** (SVE) system to remove and treat the chemical vapors that are in the soil below the ground surface. A series of SVE wells will be located on the former Omega property and adjacent properties. The actual location and number of wells will be determined during the remedial design phase, but Figure 2 is an example of how the system might look. The SVE wells work as a system to remove harmful chemical vapors that are in the soil above the water table. This keeps the chemicals from moving down into the water. Equipment attached to the wells creates a vacuum which pulls air (and vapors) through the soil, out of the soil, and into a **granular activated carbon** (GAC) system. Once the chemicals are removed using the GAC, the clean air created through this process will be released into the atmosphere. Any liquids (condensate) created as part of the process will be removed and treated at the groundwater treatment system. The treatment systems will be constructed, and then before they are put into operation a series of tests will be conducted to make sure everything works as designed. Once the SVE system is in place, its performance will be routinely reviewed to measure how much contaminated soil vapor is being removed and whether the system is meeting the cleanup goals specified in the ROD.

Contingency Plan: Hot Air Injection/Dual Phase Extraction

If the SVE system alone is not removing enough soil vapor to meet the remedial action objectives, EPA will add **hot air injection** and/or **dual phase extraction** (DPE) to increase the performance of the system. Hot air increases the effectiveness of SVE by causing additional vapors to be released from the soil. DPE consists of removing soil vapor and doing groundwater extraction treatment at the same time. This will be used if sampling data indicate that soil vapor concentrations are not sufficiently decreasing to remain above cleanup levels.

Temporary Institutional Controls (ICs)

Temporary institutional controls are measures designed to prevent exposure to contamination while the cleanup is ongoing. In the case of Omega OU-1, existing paved areas will be maintained and excavation will be restricted in certain areas during operation of the SVE system.

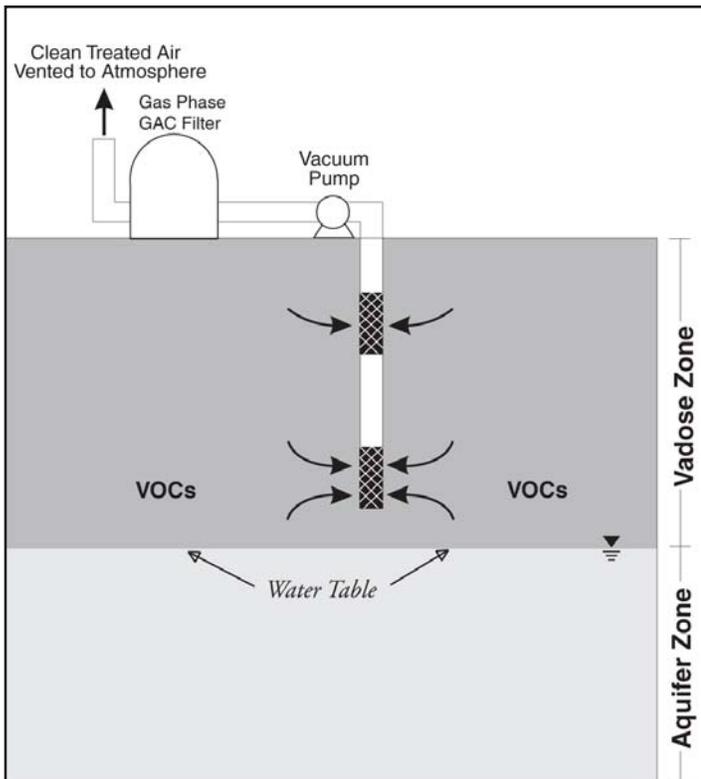


Figure 2: Components of SVE System

Cost of Remedy and Timeframe

The estimated total cost to implement this cleanup plan is \$5.6 million (present worth), including \$2.1 million in capital costs and \$3.5 million in operation and maintenance costs (present worth). The estimated additional costs for hot air injection and DPE are \$0.9 million and \$2.9 million. The estimated time of operation is five years.

Next Steps

The PRPs will design, construct and operate the cleanup system under EPA oversight. System design will take approximately six to eight months and construction approximately three to six months. The PRPs will develop all design and construction plans, which will be reviewed and approved by EPA before implementation.

Technical Assistance Program

A Technical Assistance Grant (TAG) is available for citizens who live near a Superfund site. The grant helps qualified citizen groups affected by a Superfund site hire an independent technical advisor to help interpret and comment on site-related information. An initial grant of up to \$50,000 is available. For further information about the grant, please call us and request an application (toll-free at 800-231-3075) or get it from the TAG web page by going to the EPA website: <http://www.epa.gov/superfund/community/tag/index.htm>

Glossary Of Terms

Contaminants of Concern: Site-specific chemicals that exceed regulatory levels or pose a potentially significant risk to human health and the environment.

Feasibility Study: A study that determines the best way to clean up environmental contamination.

Groundwater: The supply of water found below the ground surface, usually in aquifers.

Information Repository: A location accessible to community members (such as a local library) that houses documents, reports and other site-related information, general information about Superfund, newspaper notices and the Administrative Record for the site. EPA also maintains an information repository for all Superfund sites at its offices in San Francisco.

Institutional Controls: Land use restrictions that supplement engineering controls to prevent or limit exposure to contamination.

Proposed Plan: A document that summarizes the cleanup alternatives evaluated as part of the feasibility study process, and identifies the preferred cleanup alternative.

Remedial Action Objectives: The cleanup goals established by EPA when implementing a remedial action.

Remedial Investigation: The CERCLA process of determining the type and extent of hazardous material contamination at a site.

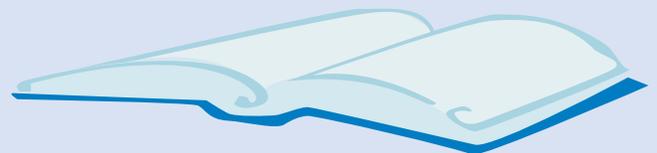
Record of Decision: The document that formalizes EPA's decision to implement a specific remedial action.

Soil Vapor Extraction: A technology that removes contaminants from the subsurface by extracting and treating contaminant vapors.

Superfund: The federal program to clean up the nation's uncontrolled hazardous waste sites.

Vapor Intrusion: The process by which contaminant vapors in the soil and/or groundwater migrate through subsurface soils and enter overlying buildings.

Volatile Organic Compounds: Carbon-containing chemical compounds that evaporate readily at room temperature.



OMEGA CHEMICAL SUPERFUND SITE

Site Information Repositories

EPA maintains site information repositories at the Whittier Public Library and the EPA Superfund Records Center. These repositories contain project documents, fact sheets and reference materials. EPA encourages you to review these documents to gain a more complete understanding of the site. The information repositories' locations are listed below. EPA also has a site information web page at: www.epa.gov/region09/OmegaChemical.

U.S. EPA Superfund Records Center

95 Hawthorne Street
San Francisco, CA 94105
(415) 536-2000
Monday-Friday 8:00 a.m. to 5:00 p.m.

Whittier Public Library

7344 S. Washington Avenue
Whittier, CA 90602
(562) 464-3450
Mon, Tues, Wed. 10:00 a.m. to 9:00 p.m.
Thursday, Friday 10:00 a.m. to 6:00 p.m.
Saturday 10:00 a.m. to 5:00 p.m.



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