

Stanton Cleaners Area Groundwater Contamination

New York

EPA ID#: NYD047650197

EPA REGION 2

Congressional District(s): 05

Nassau

Town of Great Neck

NPL LISTING HISTORY

Proposed Date: 1/19/1999

Final Date: 5/6/1999

Site Description

The Stanton Cleaners Area Groundwater Contamination site (Site) includes an active dry-cleaning business, located at 110 Cutter Mill Road in the Town of North Hempstead, Nassau County. The Stanton Cleaners Property (SCP) is approximately 1/4-acre in size and includes a one-story building in which the dry-cleaning business operates and an adjacent one-story boiler/storage building. At the present time, the Site also includes a two-story operations building in which the Environmental Protection Agency houses its ongoing soil and groundwater treatment operations. Most of the SCP has been paved with asphalt except for a narrow strip at the rear of the property. Adjoining properties include an indoor tennis facility (which has been demolished), a synagogue and Hebrew school, a condominium and a service station. The surrounding community is zoned commercial/residential and is serviced by public sewer and water. The public water is supplied by the Water Authority of Great Neck North (WAGNN). Three public water supply wells are located approximately 1000 feet downgradient of the SCP.

As a result of past disposal practices, tetrachloroethene or PCE, a volatile organic compound (VOC), migrated from the subsurface soils into the indoor air environments of the above-referenced affected buildings adjacent to the SCP and into the groundwater beneath the Site. Levels of PCE, a solvent commonly used by dry cleaners, have been found above Federal and State drinking water standards in the WAGNN public water supply wells.

Site Responsibility: This site is being addressed through Federal and State actions

Threat and Contaminants

Improper handling and disposal of spent dry cleaning solvents at the SCP resulted in the release of hazardous wastes, including PCE, at the Site. Some of this material migrated through the Site soils to nearby buildings and the groundwater, resulting in a significant threat to public health. The Removal Action, discussed below, has addressed the soil gas/indoor air threat posed to those occupying nearby buildings. The WAGNN public water supply wells have added treatment systems and are routinely monitored to ensure that the drinking water supply is in compliance with Federal and State drinking water standards.

Cleanup Approach

The Site is being addressed in two steps: 1) immediate actions and 2) a long-term remedial phase, focusing on the cleanup of contaminated soils, indoor air and groundwater for the entire Site.

Response Action Status

Immediate Action: In September 1998, under its removal authority, EPA installed a soil vapor interceptor system to mitigate impacts from PCE vapors to Plaza Tennis, an indoor tennis club. [This tennis facility has since been demolished.] Additionally, under its removal authority, EPA funded and installed a soil vapor extraction (SVE) system on the SCP to remediate the VOC-contaminated soils, thus reducing the indoor air contamination in the adjacent affected buildings to safe levels. The VOC-contaminated vapors are being treated by a granular activated carbon (GAC) system.

Entire Site: In March 1999, EPA issued a Record of Decision identifying a selected remedy for Operable Unit One which included 1) an upgrade of the existing groundwater air stripper on the SCP, 2) construction of a groundwater extraction and treatment system for the Site, 3) continued operation of the SVE system, 4) indoor air monitoring of the affected buildings adjacent to the SCP, 5) long term groundwater monitoring and 6) groundwater use restrictions. The ROD also called for an investigation of other potential sources of groundwater contamination in the Site area.

The groundwater extraction and treatment system is currently operational and functional. The SVE system continues to operate, in conjunction with the groundwater treatment system. The Site was deemed construction complete on December 11, 2003.

The Site is currently in the long term response action phase of the project, also known as the operations and maintenance phase.

Site Facts: In 1983, approximately 20 cubic yards of PCE-contaminated soil was removed from behind the Stanton Cleaners property.

In 1989, prior to EPA's involvement, a groundwater extraction and treatment system was installed to address groundwater contamination which resulted from improper disposal of spent PCE behind the SCP building. This system never worked properly and is currently abandoned.

In 1998, the New York State Department of Environmental Protection (NYSDEC) funded the construction of a new air stripper treatment system for the WAGNN water supply wells which are impacted by Site. This treatment system is currently in operation.

Cleanup Progress

An SVE system is directly addressing surface and subsurface soil contamination. Within the contaminated soils, a series of SVE wells have been installed where significant concentrations of PCE have been detected. Soil vapors containing VOCs are being extracted from the soils by an above ground vacuum system. The contaminated vapors are being treated by a GAC system. A low permeability cover has been placed over the affected soils to enhance the system's efficiency by controlling short-circuiting with atmospheric air.

Concentrations of PCE in indoor air have been dramatically reduced. Through the implementation of this soil remediation technology, the problems associated with indoor air quality in adjacent buildings have been addressed. In addition, the SVE system is reducing the mass of contaminants in the soils, thereby reducing the cross media impacts to groundwater. The performance of the SVE system is being monitored using soil vapor probes. To date, the SVE system has removed more than 16,000 pounds of PCE from the Site soils.

In January 2002, EPA also removed some underground storage tanks on the SCP. This excavated area has been configured into the SVE system for PCE removal.

As part of the selected remedy, an operations building houses the SVE system and the groundwater pump and treat system. The contaminated water is pumped through an air stripper and carbon filtering system. The clean water is discharged to the storm sewer. Ongoing discharge sampling and monitoring well sampling continue as part of the long-term response action. The most recent data shows that PCE contamination levels have been dramatically reduced, since the operations began. The pump and treat system is currently operating and has treated over 168 millions gallons of contaminated groundwater.

As part of the March 1999 ROD, EPA, in conjunction with NYSDEC, investigated other potential off-site sources of VOC groundwater contamination. These potential sources are directly related to sites that NYSDEC is investigating in the area of the SCP. In 2003, EPA prepared an OU-2 Investigation Summary Report which evaluated potential off-site sources. In September 2003, EPA issued an Explanation of Significant Differences to the March 1999 ROD for the Site, indicating that no further Federal response actions to address potential off-site sources of groundwater contamination were warranted. NYSDEC manages the response at these sites.

EPA issued the first five-year review for the Site in December 2008 and found that the Site continues to be protective of human health and the environment.

Site Repositories

Great Neck Library 159 Bayview Avenue @ Gristmill Lane Great Neck, New York 11014

Telephone: 516-466-8055 Hours: Mon-Tues; Thurs-Fri: 9 AM - 9 PM Wed:10 AM - 9 PM Sat: 9 AM - 6 PM Sun: 1 PM - 5 PM (closed June 18th - mid-Sept)