

Tutu Wellfield

Virgin Islands

EPA ID#: VID982272569

EPA REGION 2

Congressional District(s): 01

St. Thomas
Tutu

NPL LISTING HISTORY
Proposed Date: 2/6/1992
Final Date: 9/29/1995

Site Description

The Tutu Wellfield site, located in a mountainous commercial/residential area, is comprised of a plume of contaminated groundwater covering an area approximately 108 acres in size. This contamination was first detected when a strong petroleum odor coming from the Tillet Well, a public water supply for the area, was reported. An investigation conducted by the Virgin Islands Department of Planning and Natural Resources (VIDPNR) indicated that volatile organic compounds (VOCs) were contaminating several public, institutional, commercial, and private wells. Water from some of these wells was transported to other parts of the island. Many contaminated wells, including the Tillet Well, were subsequently shut down. In 1987, an Administrative Order was issued to two potentially responsible parties (PRPs), Tutu Texaco Service Station and Tutu Esso Car Care Center. This order required them to investigate the impact that the release of petroleum from their underground storage tanks (USTs) and VOCs had on the surrounding environment. Additional PRPs identified by EPA include: two auto repair stations, a dry cleaner, and a government maintenance center. These operations contain various possible sources of contamination such as petroleum and waste oil USTs, drum storage areas, contaminated catch basins, oil separators, floor drains, a sump holding tank, a leaching pit, above-ground storage tanks, and an evaporation pit. These operations also involved various toxic materials, including solvent-based auto flushes, dry cleaning fluids, and dye strippers. Tutu Wellfield is part of the Upper Turpentine Run Basin. A stream leading to Turpentine Run is a few hundred feet from the site; Turpentine Run is approximately 3 miles from Mangrove Lagoon, which is hydraulically connected to the Caribbean Sea. The Atlantic Ocean is one mile from the site. Public and private wells within 4 miles of the site formerly supplied drinking water to an estimated 1,600 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible party actions.

Threat and Contaminants

Groundwater, including several wells, is contaminated with VOCs, such as benzene, toluene, perchloroethylene (PCE), 1,2-dichloroethene (DCE) and trichloroethene (TCE). Contaminants found in the groundwater were also detected in the soil on the properties of the various PRPs.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In response to the detection of contaminants in groundwater, VIDPNR closed down the Tillet Well, three private wells, and 13 commercial wells in 1987. EPA followed this action up with the decontamination of five residential cisterns using CERCLA Removal funds. An alternate water supply was provided to these residences while monitoring of the remaining wells continued. In March 1990, EPA issued an Administrative Order to three PRPs (Esso, Texaco and L'Henri Dry Cleaner) to take over the monitoring program and to provide trucked water to additional residences affected by contamination in groundwater. An Escrow Agreement was signed by the three PRPs in February 1994 to provide trucked water to the affected residences. As of October 2005, EPA has taken over the responsibility of providing trucked water to the affected residences.

Site Facts: VIDPNR issued an Administrative Order to Tutu Texaco Service Station and Tutu Esso Car Care in 1987. This order required the PRPs to investigate the impact that the release of petroleum from their USTs had on the surrounding environment. Seven additional PRPs were identified later on in 1987. A Unilateral Administrative Order was

issued in 1990 by EPA to L'Henri Dry Cleaners, Esso Standard Oil Co., and Texaco Caribbean Inc. These PRPs were required to take over the removal actions initiated by EPA in 1990. In February 1992, EPA negotiated an Administrative Order on Consent with Texaco Caribbean Inc. and Esso Standard Oil Company to conduct a Remedial Investigation/Feasibility Study (RI/FS) to determine the nature and extent of contamination and to identify alternatives for cleanup. The Remedial Investigation was completed in January 1995 and the Feasibility Study was completed in September 1995. Due to the effects of Hurricane Marilyn, issuance of the Record of Decision was postponed. EPA reissued the Proposed Plan on February 12, 1996 and the public meeting was held on March 5, 1996. The Record of Decision was signed on August 5, 1996. The ROD calls for extraction and treatment of contaminated groundwater and soil vapor extraction of contaminated soils. The remedial design was completed in the Fall of 2001. Construction of the groundwater treatment and soil vapor extraction system commenced in September 2003. Construction was completed in March 2004. A final inspection was conducted on June 30, 2004 for the remedial action. A Preliminary Close Out Report was issued in March 2004. A vapor intrusion assessment was conducted at the Curriculum Center in December 2007. This site is in the long term remedial action phase.

Cleanup Progress

Immediate actions such as the closing down of contaminated wells and the provision of safe drinking water to affected residences have reduced the risks posed to the health and safety of the nearby population while additional site investigations were conducted.

An Administrative Order was issued to L'Henri Dry Cleaners in March 1995 to conduct interim remediation of soils at this facility. Approximately 700 cubic feet of contaminated soil were excavated. On-site treatment using soil venting has been initiated. Quarterly monitoring and sampling of the soil pile commenced in May 1995.

The RI/FS was completed in August 1995. The Record of Decision was signed on August 5, 1996. EPA initiated the remedial design of the Site-wide groundwater remedy and the remedial design of the soil remedy at the Curriculum Center in October 1997. Pre-design field work completed October 1999. Remedial design for the groundwater treatment and the soil remediation were completed in Fall 2001. Construction of the groundwater treatment and soil vapor extraction system commenced in September 2003. Construction was completed in March 2004. A final inspection was conducted on June 30, 2004 for the remedial action. A Preliminary Close Out Report was issued in March 2004. A vapor intrusion assessment was conducted at the Curriculum Center in December 2007. The site is in the long term remedial action phase.

Four Administrative Orders were issued on May 18, 1998 to Texaco, Esso Service Stations to perform soil and groundwater cleanups at their facilities and L'Henry Cleaners and the owners of the property, Cyril V. Francois Associates, Four Winds Shopping Center and the Western Auto Supply Company to perform soil cleanup at their facilities. Texaco is operating its treatment unit. ESSO is operating its groundwater treatment. All impacted soil from the Esso station was excavated and treated off-site. Western Auto/Four Winds Plaza and L'Henri Cleaners completed their pre-design field investigating. No further work is required to their facilities pursuant to the Administrative Orders.

Site Repositories

U.S.E.P.A. REG 2, Caribbean Env. Protection Div. Centro Europa Bldg, Suite 207, 1492 Ponce de Leon Ave. Santurce, P.R. 00907-4127.

Division of Environmental Protection, Dept of Planning and Natural Resources, Cyril E. King Airport, St Thomas, U.S. Virgin Islands 00802.

U.S.E.P.A. REG II, Record Center, 290 Broadway, 18th Floor, New York, New York 10007-1866

U.S.E.P.A. REG. II, Caribbean Environmental Protection Div. 1336 Beltjen Road, The Tunick Building, Suite 102, St. Thomas, USVI 00802