

Fashion Dry Cleaners
6157 North 9th Avenue
Pensacola, Florida
County: Escambia
District: Northwest
Site Lead: Waste Cleanup Program
Approved for Cleanup: June 11, 1990
ERIC ID # 3850

Site Description and History

The Fashion Dry Cleaners Site is located at 6157 North 9th Avenue in Pensacola in a mixed residential/commercial area in Township 01S, Range 30W, Section 32 at 30° 29' 10.5974" N, 87° 11' 59.5726" W. Since 1974, two different companies have operated Fashion Dry Cleaners as a laundry and drycleaning facility. Both operators utilized the solvent tetrachloroethene (PCE) in their cleaning process. A solvent recovery unit generated approximately 2 gallons of waste PCE per month. Filters for the recovery unit were replaced twice a year and disposed of on the ground. In 1980 the Cleaner's filtration system was modified and PCE-saturated filter material was disposed of at an approved disposal facility.

In June 1986, the Escambia County Utilities Authority (ECUA) discovered trace concentrations of PCE (3.9 µg/L) in a water sample obtained from the ECUA 9th Avenue well, at that time located approximately 1,500 feet south- southwest of Fashion Dry Cleaners on the corner of 9th Avenue and Underwood Road. This well was 270 feet deep with a pumping capacity of 2.88 million gallons per day and serviced approximately 70,000 potable water connections. As a result of this discovery, the county installed activated carbon filtration units to remove the PCE from well water prior to distribution through the public water supply system. Florida Department of Environmental Regulation (FDER, now DEP) was notified of the PCE contamination and during the follow-up investigation, found discarded filter material from dry cleaning operations outside the Fashion Dry Cleaners building. As a result of the 1986 investigation, FDER concluded that the PCE contamination originated from the site.

In November 1987, Dames & Moore under contract with FDER collected samples of site soil and waste filter material and found levels of PCE ranging from 15 mg/kg to 3,300 mg/kg. It was concluded that this material had been disposed of onsite over a period of many years. Dames & Moore submitted a Contamination Assessment Report (CAR) to FDER in 1988, identifying a plume of PCE in the upper portion of the surficial aquifer. Most of the contaminated groundwater was observed to be north and east of the ECUA 9th Avenue well. In April 1990, Dames & Moore submitted a Remedial Action Plan to FDER and recommended the installation of a well(s), which would intercept the PCE contaminated groundwater as it moved south through the upper perched zone of the surficial aquifer.

Threat

The primary concern at this site is the potential for further contamination of the public potable drinking water supply. Since PCE was first detected in water from the 9th Avenue well in 1986, activated carbon filters have been used to remove PCE from the well water prior to distribution to

the Pensacola water supply system. In 2003, ECUA relocated the 9th Avenue municipal well to an area north of Underwood Road, thus allowing future construction of an entrance way to the Pensacola Junior College on the former ECUA property.

Response Strategy and Status (December 2020)

The site was adopted for State-funded cleanup in June 1990. Waste dry cleaning filter material and contaminated soil behind the Fashion Dry Cleaners building was excavated by FDER, placed in steel drums, and transported to Emelle, Alabama in 1991 for proper disposal. In February 1991, under contract to FDER, Camp Dresser & McKee Inc. (CDM) submitted a Remedial Design work plan that included additional fieldwork and design of a groundwater recovery, treatment, and disposal system for site cleanup. Fieldwork was completed in March 1991 and consisted of installation of monitoring wells, sampling, and analysis of groundwater, and performance of an aquifer pump test. A final report was submitted in September 1991. Results from this assessment verified the previous results from the 1988 Dames & Moore CAR.

A Decision Memo was signed by FDER in March 1992 documenting the selected remedial action. The remedy included: 1) installation of extraction wells to capture contaminated groundwater, and 2) treatment consisting of air strippers followed by carbon adsorption.

Installation of a six-inch diameter groundwater recovery well, performance of an aquifer pump test, and groundwater modeling was completed in February 1994 to support design of the groundwater recovery and treatment system. However, pre-construction groundwater sampling in December 1994 indicated an overall decline in the maximum observed PCE concentration from 710 µg/L to 170 µg/L.

The DEP issued an Amended Decision Memo in July 1995. The Decision Memo clarified that recovered groundwater would be treated by a low-profile air stripper and carbon polishing unit to meet drinking water standards followed by re-injection of treated water into a deeper zone within the Sand and Gravel Aquifer.

Two additional groundwater recovery wells and two injection wells for treated water disposal were installed, pump tests were performed, and site monitoring wells were resampled. Remedial Design was completed in May 1996. Construction of the groundwater remedial system was completed October 1996.

The initial recovery well was unable to produce groundwater at the rate designed for site cleanup. Following additional pump tests and resampling of existing monitoring wells, a new recovery well was installed near the groundwater treatment system, located down gradient of the dry cleaner facility and adjacent to the ECUA 9th Avenue municipal facility.

Groundwater remedial system operations resumed in September 1997 and continued until September 2000.

The September 2000 groundwater monitoring data indicated that PCE contaminant levels near the groundwater recovery system had been reduced to less than 60 µg/L. Groundwater monitoring data from the deeper ECUA 9th Avenue municipal well indicated that the shallow groundwater remedial system had been effective in mitigating potential migration into the deeper aquifer. The offsite groundwater recovery and treatment system was shut off in September 2000. Demobilization of the offsite groundwater treatment system and associated recovery and injection wells located on the PJC property was conducted in August 2005, after continued decline in offsite groundwater contaminant concentrations demonstrated that groundwater cleanup goals could be attained without further assistance from the offsite system.

The April through September 2000 groundwater sampling of an onsite monitoring well located on the Fashion Dry Cleaner facility confirmed that PCE had increased in concentration up to 280 µg/L, suggesting that an onsite contaminant source still existed. Soil sampling at the former dry cleaning facility was completed in May 2000 and confirmed the presence of PCE contaminated soils.

DEP amended the site remedy in June 2001 to include a soil vapor extraction (SVE) and air sparging system to address the remaining contaminated soils and groundwater located onsite with continued groundwater monitoring down gradient to track the effectiveness of the cleanup and confirm that contaminant levels in the shallow aquifer are continuing to naturally decline.

Remedial Design was completed in January 2002, and construction and startup of the onsite system was completed in June 2002. The air sparging system operated until February 2003 when groundwater sampling indicated that groundwater cleanup target levels had been met around the facility. The SVE system continued operation until March 2006 when it was decommissioned from the site. The former drycleaning facility building was demolished by the property owner shortly thereafter.

DEP completed onsite soil sampling to determine if soils remained onsite at concentrations above soil cleanup target levels. Based on those sampling results, in August 2006 approximately 92 tons of contaminated soils were excavated, and the contaminated soil was transported to a permitted facility in Alabama for final disposal. The site was restored to grade with clean fill dirt.

The November 2006 groundwater monitoring event confirmed that site-related groundwater contaminants down gradient of the former facility are continuing to naturally decline, and that PCE above groundwater cleanup target levels is currently limited to an area just north of Underwood Road. Results from the July 2008 monitoring event indicated that attenuation to cleanup target levels may be slow as there is little degradation contributing to the overall decline in groundwater contaminant concentrations. The February 2010 annual groundwater report has confirmed the continued decline of groundwater contaminant concentrations. Monitoring results presented in the December 2011 annual groundwater monitoring report indicated that contaminant levels were at or below cleanup target levels. However, confirmatory groundwater sampling conducted in October 2012, and 2013 indicated that PCE remains above the GCTL in 3 offsite monitoring wells. Monitoring in 2014, 2015 and 2016 confirmed similar exceedances. Monitoring in 2017 and 2018 confirmed PCE above the GCTL in 2 offsite monitoring wells.

Schedule

Annual groundwater monitoring is ongoing with concurrent evaluation of the effectiveness of the attenuation remedy in reducing PCE concentrations to meet the groundwater cleanup target level (GCTL) of 3 µg/L. Monitoring will continue until all monitoring wells meet the cleanup target levels. The next sampling event is scheduled for June 2021.