

JJ Seifert Machine Shop
4202 – 4212 Old Highway 41
South Ruskin, FL
County: Hillsborough
District: Southwest
Site Lead: EPA
Placed on NPL: March 4, 2010
ERIC ID # 3943

Site Description and History

The site is located at 4202 to 4212 Old Highway 41 South in Ruskin, Hillsborough County, Florida, in Township 32S, Range 18E, Section 32 at 27° 40' 43.7143" N, 82° 28' 39.8739" W. The site is approximately one acre in size and includes a machine shop building, a metal building and a mobile home. JJ Seifert Machine Company, which has operated at the site since approximately 1962, manufactures products such as electronic components, tools, dies, jigs and fixtures. A paint shed, a drum storage area and a plating operation formerly existed at the site. The primary source of contamination in the ground water is a former tetrachloroethene (PCE) vapor degreaser, which was used to clean parts.

The site first came to the Department's attention in 1993 during site assessment activities conducted near the site. PCE and other chlorinated volatile organic compounds (CVOCs) were found in groundwater at concentrations above the Environmental Protection Agency's (EPA) Safe Drinking Water Act Maximum Contaminant Levels (MCLs). The most prevalent CVOCs showing widespread onsite contamination were *cis*-1,2-dichloroethene (CIS), PCE, trichloroethene (TCE), and vinyl chloride (VC). Upgradient ground water sample results confirm that the VOC contaminant plume originates at JJ Seifert Machine Company.

Threat

There are 28 private and community potable wells within a one-quarter mile radius of the site. The surficial aquifer is unconfined and there are no municipal water lines in the area. Private water well sampling, conducted in August 2008 by the Hillsborough County Health Department (HCHD), found CVOCs in 12 residential wells. The HCHD installed granular activated carbon filters on the 12 wells and is currently providing maintenance and monitoring of the systems.

Response Strategy and Status (December 2020)

The State of Florida referred the site to the EPA due to the contamination detected in the private drinking water wells. The EPA received a letter of support from the State on June 9, 2009, for placing this site on the National Priority List. The site was then placed on the National Priority List on March 4, 2010.

In September 2010, the Florida Department of Health sent a draft Health Assessment Report out to the public for comments. The report indicated that the use of unfiltered polluted groundwater under the JJ Seifert site and nearby area for a year or more could harm people's health. Florida DOH stated that they would conduct routine testing of private wells in the area for CVOCs until the site is cleaned up.

In January 2011, the EPA began the Remedial Investigation and Feasibility Study (RI/FS). On August 31, 2011 off-site notification letters were sent to property owners that had confirmed groundwater contamination as a result of the JJ Seifert site. The Final Remedial Investigation Report was submitted to DEP on December 20, 2012. The Final Feasibility Study was submitted to DEP on April 2, 2013.

Remedial Investigation found that there are two primary source areas: the former drum storage area and the southern portion of the machine shop building. Twenty soil borings were advanced for contamination assessment. Soil contamination was found onsite. Only one soil sample contained CVOCs, SB15 (1.5-2 ft bls). Concentrations of metals above Soil Cleanup Target Levels (SCTLs) were found in three soil boring locations. Chromium was detected above Residential Direct Exposure SCTL at SB10 (290 mg/kg). Chromium was detected above leachability SCTL at SB18 (62 mg/kg). Barium was detected above the Leachability SCTL and lead was detected above the residential direct exposure limit at the surface at SB20 (430 mg/kg and 450 mg/kg respectively).

Groundwater contamination was found to be onsite and offsite. Groundwater contamination is primarily CVOCs. Concentrations of PCE and its degradation products TCE, 1,1-DCE, CIS, and VC are all present in the groundwater above Groundwater Cleanup Target Levels (GCTLs) beneath and near the site. Constituents associated with petroleum fuels including; ethylbenzene, toluene, and MTBE, were detected at a limited number of locations at concentrations above GCTLs. Concentrations of metals were detected in monitoring well samples above GCTLs for aluminum, iron, manganese, molybdenum, and vanadium. It is currently unknown if these metals are site related contaminants, naturally occurring, or related to increased dissolution in groundwater chemistry caused by site contamination.

The Feasibility Study presented remedial alternatives for soil and groundwater cleanup. The evaluation of soil concluded that Alternative S-2A: Excavation, Off-Site Disposal, and Institutional Controls satisfied the evaluation criteria better than the other soil alternatives. The evaluation of groundwater concluded that Alternative GW-3B best satisfied the evaluation criteria. This alternative entails providing and maintaining GAC filters for wellhead treatment on water supply wells with COC concentrations above DEP GCTLs, conducting In Situ Enhanced Bioremediation (ISEB) into the surficial and upper Floridan aquifer, Monitored Natural Attenuation, and Institutional Controls. DEP agreed to the recommended remedial strategies.

The final RI Report was submitted on December 20, 2012 and the final FS was submitted on April 2, 2013. The EPA signed a Record of Decision for the site on September 26, 2013.

The Final Remedial Design was submitted on August 11, 2014. Implementation of the Remedial Design occurred from December 2014 to February 2015. A source removal of 615 tons of contaminated soil, injection of ISEB amendments via DPT and injection wells, and a baseline groundwater monitoring event was conducted as the remediation effort during this time. Follow up ISEB injections via DPT were conducted in February and March 2017. The annual groundwater monitoring was conducted in June 2017 as well as the signing of the Restrictive Covenant by the Property Owner which restricts groundwater and land use on the source property.

The First Five-Year Review (FYR) site meeting was conducted in November 2018 and the draft FYR was sent for review in March 2019. DEP has reviewed and sent comments to EPA and the draft is being finalized.

The EPA responded to FDEP comments regarding the FYR. In the summer of 2020, an additional injection of ISEB was conducted. The EPA contractor is currently completing groundwater monitoring and public outreach to satisfy FDEP comments. EPA stated that a Memorandum of Agreement (MOA) has been completed for the site with the Southwest Florida Water Management District (SWFWMD).

Schedule

The 2020 annual report detailing ISEP treatment and groundwater monitoring is expected in the spring of 2021.