

Superfund Construction Project – Funding Pending



ABC One-Hour Cleaners Superfund Site Jacksonville, North Carolina

Site Description

[ABC One-Hour Cleaners](#) is a one-acre site located in Jacksonville, Onslow County, North Carolina. The site's surrounding area is generally characterized as a mixed land use consisting largely of commercial and with minimal residential use.

The property formerly served as a dry-cleaning operation which began in 1964. The property housed three buildings; each designated for specific activities. The bulk of the chemical activities resulted in disposal of tetrachloroethylene (PCE). Reports of PCE in the drinking water of a neighboring community-initiated investigations, which detected high concentrations of PCE in the groundwater. The investigations further determined the groundwater contamination originated from the property; the highest concentrations were detected in the soil. The community reported cases of leukemia and other health implications that are common to PCE consumption. As a result of the investigations, EPA added the site to National Priorities List (NPL) in 1989. Due to the remedial efforts, the dry-cleaning operations were terminated in 2011. Currently, the drinking water supply for the surrounding residents is provided by a public water source.

Site Status and Cleanup Actions to Date

- The original records of decision (RODs) were issued in 1994 to address the contamination identified in the groundwater and soil. The groundwater selected remedy included the operation of a pump-and-treat system coupled with monitored natural attenuation. Soil vapor extraction (SVE) was the selected remedy for the site's contaminated soil.
- The remedies were discontinued in 2011 as the groundwater ROD required the system to operate for seven years and the soil remedy sustained severe damage from Hurricane Irene. In 2012, the site's third five-year review determined that the remedies were ineffective and suggested the selection of more aggressive remedies.
- In 2015, an investigation was conducted to further characterize the soil and groundwater contamination. The investigation determined the presence of non-aqueous phase liquid (NAPL). The NAPL was detected vertically through the entire soil media which extends from the surface to 65 feet. In addition, NAPL was detected beneath two adjoining buildings. As the adjoining buildings are active, the elevated PCE concentrations raised the concern for vapor intrusion (VI). The investigation concluded that the soil media be addressed first, prior to the selection of a groundwater remedy.
- To determine the presence of VI in the adjoining buildings, a study was conducted in 2017, which confirmed the presence of elevated PCE concentrations in the sub-slab and indoor air. Additional VI studies were recommended to confirm the PCE concentrations.
- In 2018, in-situ thermal remediation (ISTR) coupled with SVE was selected as the soil remedy to address the NAPL in the most aggressive and effective manner possible.
- In 2020, the remedial design was completed. As part of this effort, soil-gas samples were collected from the perimeter of the buildings which validated the results from the 2017 VI study.
- To expedite the remedial efforts, the removal program installed an eight-foot fence around the site's perimeter and excavated and disposed of the septic tank system.

Project Pending Funding, as of the end of Fiscal Year 2020

This work includes the operation of ISTR coupled with SVE, installation of a mitigation system, implementation of institutional controls and restoration efforts.

Funding Through Fiscal Year 2020

EPA has funded approximately \$10 million for cleanup activities at the Site.