Tabernacle Drum Dump

New Jersey

EPA ID#: NJD980761357

EPA REGION 2

Congressional District(s): 03

Burlington

Tabernacle Township

NPL LISTING HISTORY
Proposed Date: 9/1/1983
Final Date: 9/1/1984

Site Description

The Tabernacle Drum Dump site is located on a wooded, one-acre parcel of undeveloped land located on Carranza Road in Tabernacle Township, in the northern region of the New Jersey Pine Barrens. Land in the area is used primarily for agriculture and recreation. Approximately 75 to 100 residents live within a 1-mile radius of the site and most are dependent on groundwater wells for drinking water and agricultural purposes. The Cohansey aquifer, which is a source of drinking water to most of the residents in the vicinity of the site, has a depth of approximately 100 feet. In a one-time dumping incident in the summer of 1976 or 1977, approximately 200 containers (55-gallon drums, 20-gallon containers, and several 5-gallon pails) of solvents, paint, and paint sludges were dumped on a 2,000-square-foot area of the property. These containers were discovered by Tabernacle Township officials in 1982. The Burlington County Health Department inspected the site for the Township and referred the case to the New Jersey Department of Environmental Protection (NJDEP). NJDEP followed-up with a more detailed site inspection, collecting drum and soil samples which revealed the presence of carbon tetrachloride, benzene, toluene, ethylbenzene, xylenes, chromium and lead. Deterioration and leakage of some containers resulted in visible soil contamination. The drums and contaminated soil were removed in 1984.

Site Responsibility: This site has been addressed through Federal and potentially responsible party actions

Threat and Contaminants

A 1988 investigation by EPA revealed that 1,1,1-trichloroethane and 1,1-dichloroethene were the major groundwater contaminants, and that chromium, cyanide, and lead were the major surface soil contaminants. Contaminated groundwater was found to be migrating to the southeast, towards residential drinking water wells. The potential for ingestion of contaminated ground water posed the greatest threat to the residents. Trespassers that entered the unfenced site could have been at risk from incidental ingestion of contaminated soil. EPA implemented a well sampling program to monitor residential drinking water to ensure it met health-based standards.

The remedy for the site has addressed the site contamination described above.

Cleanup Approach

The site has been addressed in two stages; immediate actions (contaminated soil and container removal) and a long-term remedial phase focusing on cleanup of the groundwater.

Response Action Status

Immediate Actions: In 1984, under EPA supervision, Atlantic Disposal Services (ADS), a potentially responsible party (PRP), performed an emergency action that consisted of removing containers, 40 cubic yards of drummed materials, 8 truckloads of excavated soil, and approximately 3,000 gallons of liquid material. The materials were disposed of at a facility permitted for the disposal of hazardous waste.

Remedial Investigation/Feasibility Study: EPA completed an investigation in June 1988. A plume of contaminated groundwater was found to be migrating southeast from the original dump location,towards the drinking water wells used by residents on Carranza Road. The plume consisted mostly of 1,1,1-trichloroethane and 1,1-dichloroethene. The plume location was approximately 3,000 feet southeast of the original dump location.

Record of Decision: EPA selected a remedy on June 30, 1988. The selected remedy included extraction and on-site

treatment of contaminated groundwater; installation of additional groundwater monitoring wells to further delineate the extent of the groundwater contaminant plume; implementation of a groundwater monitoring program for downgradient residential wells until delineation of the contaminant plume was completed; confirmatory soil sampling at the former drum dumping and storage area; and implementation of a groundwater monitoring program for a period of five years after site cleanup goals have been achieved.

Remedial Design: Design work for the groundwater remediation system began in 1991 and was completed in the fall of 1992.

Remedial Action: Construction work began in February, 1993 and was completed in July, 1993. The groundwater remediation system began operating on August 30, 1993.

Cleanup Completed: Cleanup goals specified in the ROD have been achieved. The groundwater remediation system was shut down in fall 1997. It was determined in 1998 that a five-year review of the remedy for the site was not necessary.

Site Facts: A Unilateral Order was issued in 1984 to ADS, requiring the company to remove the containers and to excavate contaminated soil. EPA sent Notice Letters to the PRPs in 1985. In 1989, EPA and USX signed a Consent Decree, under which USX performed the cleanup at the site.

Cleanup Progress

In 1984, under EPA supervision, Atlantic Disposal Services (ADS), a potentially responsible party (PRP), numbered, logged, and sampled on-site containers. ADS completed a surface cleanup in 1984 that consisted of removing containers, 40 cubic yards of drummed materials, 8 truckloads of excavated soil, and approximately 3,000 gallons of liquid material.

Another PRP, USX Corporation, designed and constructed the groundwater remediation system pursuant to a 1989 Consent Decree. Beginning in 1993, approximately 7 million gallons of groundwater per month were extracted from the aquifer. The extracted ground water was then treated and then re-injected into the aquifer. Groundwater cleanup levels were achieved at the site, and the remediation system was shut down. A five-year post remediation ground-water monitoring program was initiated in 1999. Post-remediation groundwater sampling results for all of the VOCs were below the aquifer restoration goals, and often below detection limits.

In 2005, the groundwater remediation system was dismantled, wells were abandoned, access roads removed and trees replanted to restore the site. Replanting of trees was necessary in many areas. Monitoring to ensure the restoration work is successful is still ongoing.

Environmental Progress

The removal of containers and contaminated soil from the original dump location alleviated the risk for surficial exposure to hazardous substances. In addition, the groundwater cleanup was completed and the site restored. After notice of the Agency's intention to delete the site, and response to comments received on that notice, the Site was deleted from the National Priorities List on May 8, 2008.

Site Repositories

Administrator, Tabernacle Township, 163 Carranza Road, Tabernacle, New Jersey, 08088.