

B & B Chemical Company, Inc.
875 West 20th Street
Hialeah, Florida
County: Miami – Dade
District: Southeast
Site Lead: EPA
Placed on National Priorities List: August 30, 1990
Delisted: August 5, 2014
ERIC ID # 3853
HWC # 081

Site Description and History

The B&B Chemical site is an active facility located in a dense industrial area of Hialeah, Florida in Section 13, Township 53S, Range 40E at 25° 50' 24.9684" N, 80° 17' 56.8255" W. The facility consists of seven buildings and two tank farms on five acres of land. The property is covered with an impervious surface except for a half-acre area at the southeast corner. A ten-foot tall cinder block wall surrounds it. The groundwater table is approximately five feet below land surface and groundwater flow is to the southeast. The Preston-Hialeah well field, which supplies treated drinking water to the area, is located 4,500 feet southeast of the site. The site is within the well field cone of influence.

B&B Chemical, now known as B&B Tritech, began operations at the Hialeah facility in early 1963. The facility manufactures a variety of industrial solvents, polishes, detergents, oxidizing agents, corrosion inhibitors and metal cleaners. The process containers and tank trucks were washed on-site, and the washwater drained to the surficial aquifer. In 1976, a treatment system was installed and treated washwater was discharged to the sanitary sewer.

Threat

Soil and groundwater analyses indicated a wide variety of volatile organic compounds (VOCs), extractable organic and inorganic contamination both on- and offsite. These contaminants can produce a variety of health threats if people come in direct contact with the contaminated media. Contaminants in groundwater attenuated over time and met consecutive clean sampling events as required by the EPA. A deed restriction placed on the property assures that the site will remain in an industrial setting with no direct exposure risk to the public.

Response Strategy and Status

During a countywide groundwater assessment program in 1979, the Dade County Department of Environmental Resource Management (DERM), identified groundwater contaminated with VOCs at the site. In October 1983, DERM requested B&B Chemical to begin monitoring groundwater at the facility. After a civil suit was filed against B&B Chemical for delay, three monitoring wells were installed in March 1985. DERM determined the wells were improperly installed and insufficient to monitor groundwater at the site.

After DERM requested EPA assistance, the NUS Corporation conducted a limited assessment in October 1985. The results ranked the site on the National Priorities List (NPL). Contamination consisted mainly of solvents found under the south-central portion of the property.

Subsequently, B&B Chemical hired Camp Dresser and McKee (CDM) to conduct a Remedial Investigation/Feasibility Study (RI/FS). The fieldwork was conducted in early 1987, and a final report was submitted in August 1987. An EPA review found the report to be inadequate, since no new analytical results were obtained to define the extent of the contamination. EPA then instructed its own consultant to perform the RI/FS. Concurrently, CDM developed a Remedial Action Plan (RAP) that included groundwater extraction from a single recovery well, followed by air stripping and carbon polishing.

In August 1988, the remediation system began operating. In November 1990, Envirosoft developed a report for B&B Chemical on the effectiveness of the remediation system. The report indicated that the VOC contamination in several wells and the system influent had decreased. However, since the extent of the contamination had not been delineated, the entire plume may not have been captured by the recovery well. In addition, several of the contaminants at the site did not lend themselves well to extraction.

The approved RI fieldwork was conducted between March and May 1991, after court ordered access was obtained, and the final RI report was submitted in June 1992. Concurrently, the Feasibility Study (FS) was completed in May 1992. The RI/FS indicated that limited onsite soil contamination still existed at high concentrations. DEP believed that more soil samples should have been obtained to accurately delineate this contamination. Also, groundwater data indicated that contamination was still present, although in much lower concentrations than previously detected. Following completion of the RI, confirmatory groundwater samples were obtained in September 1992, four weeks after hurricane Andrew passed through the area. Analytical results indicated significantly higher concentrations than encountered during the RI.

The Baseline Risk Assessment (BRA) was submitted by the EPA in October 1992, and listed a wide variety of VOCs, extractable organics, and inorganics as the contaminants of concern for the site. A May 1994 BRA addendum listed vinyl chloride as the sole contaminant of concern based on the post-RI sampling results. The contaminated soil at the site posed little risk, due to the impervious cover on the soil and the limited exposure potential. In March 1994, the EPA submitted a proposed plan supporting groundwater use restrictions and monitoring. Three more rounds of samples were obtained between 1992 and 1994, including a final round in January 1994, taken after the treatment system had been shut down for the previous 6 months. The data showed a violation of the state Maximum Contaminant Levels (MCLs) for vinyl chloride and chromium in only one onsite well.

The EPA signed a Record of Decision (ROD) in September 1994. Natural attenuation with groundwater monitoring was the selected alternative. Monitoring must continue until two consecutive sets of test results indicate no MCL violations. This alternative also called for a

notification agreement to help restrict exposure to contaminated soils. The DEP issued the Letter of Concurrence in February 1995.

In November 1995, the EPA conducted a round of groundwater sampling at the site. Analytical data indicated that only one well still exceeded the established cleanup goals. In September 1996, the EPA requested that the site be considered for delistment. Following review of the past five years groundwater data, the DEP recommended that at least one additional round of sampling occur before making a decision on delistment of the site.

Groundwater analytical results from sampling in January 1998 indicated that contaminant levels had decreased, although they remained above MCLs for benzene and vinyl chloride in two wells.

The US Army Corps of Engineers submitted a Five-Year Review Report dated October 24, 2001. The report concluded that the remedy is fully protective of human health and the environment. Two onsite wells continued to be monitored semi-annually for exceedances of benzene, chlorobenzene, and vinyl chloride.

The second Five Year Review was finalized in April 2007. The Army Corps of Engineers again concluded that the remedy remains fully protective of human health and the environment.

In June 2009, the EPA finalized an Explanation of Significant Differences (ESD) to clarify the current requirements for a restrictive covenant, as they differ somewhat from the 1994 ROD.

The third Five Year Review was finalized in August 2012. The site remains protective of human health and the environment.

The EPA and DEP worked with the site owner to complete a Restrictive Covenant in accordance with the June 2009 ESD and the 2012 Five-Year Review. The site met the requirements of the ROD for two consecutive clean sampling events. The restrictive covenant was completed in July 2013. In October 2013, DEP concurred in writing with the EPA's request to delist the site. The EPA formally delisted the site in August 2014. Five-Year Reviews will continue per EPA's guidelines.