

Woodbury Chemical Co. – Princeton Plant
13690 Southwest 248th Street
Princeton, Florida
County: Miami – Dade
District: Southeast
Site Lead: EPA
Placed on National Priorities List: August 30, 1990
Delisted: November 27, 1995
HWC # 077
ERIC ID # 3849

Site Description and History

The Woodbury Chemical Co. site (aka – S&M Farm Supply, Inc.) is an active facility located in southeast Miami – Dade County about one-half mile south of the town of Princeton in Section 27, Township 56S, Range 39E at 25° 32' 08.3024" N, 80° 24' 47.3958" W. Triangularly shaped, the site covers about three acres, bordered on the north by SW 248th Street, east by US Route 1, and west by agricultural land. It is on low, flat terrain primarily in an agricultural and commercial area. Most of the facility grounds are paved, and it is fenced. Six structures are located on the site; five are utilized by the company, and a company-owned residence houses a company employee. Woodbury Chemical has operated at the site as a formulator of pesticides and fertilizers since 1975. Before 1975, previous owners used the site as a vegetable packing house and farm land.

Threat

The Woodbury site rests on the Biscayne Aquifer, the sole source aquifer for Dade County. Many residences and businesses in the immediate vicinity of the site obtain their water from private wells. Surface soils in the northern and western portions of the site and subsurface soils localized in the southwestern corner contain high levels of pesticides (chlordane, DDD, DDE, DDT, dieldrin and toxaphene). Offsite groundwater to the south and east contains the pesticides aldrin, chlordane, DDD, DDT, dieldrin and heptachlor epoxide, and the metals arsenic and chromium are present in low levels. Nitrates are present in groundwater throughout the area.

Contaminated soil was removed from the site eliminating direct exposure and groundwater exposure is controlled by institutional controls. The site was delisted in November 1995.

Response Strategy and Status

In 1980, EPA recommended the site for a formal Site Inspection in a Hazardous Site Identification and Preliminary Assessment Report. A formal Site Screening Investigation (SSI) was conducted in 1985. Results from the SSI indicated possible contamination warranting further investigation. EPA contracted with the NUS Corp. in 1986 to conduct further site analysis, and to prepare the Hazard Ranking System (HRS) score. NUS completed its inspection package of the site in 1987. Groundwater samples containing arsenic, chromium and nitrates

exceeded primary and secondary drinking water standards. Soils were contaminated with significant concentrations of toxaphene, chlordane, aldrin, and dieldrin. Subsequently, EPA recommended the site for the National Priorities List in June 1988. In January 1990, under EPA and DERM supervision, Woodbury removed pesticide contaminated soil along the southern edge of the formulation plant. The contamination was due to a leak or spill from an above-ground tank during the late 1970s.

EPA initiated a Remedial Investigation (RI) and Baseline Risk Assessment (BRA) in January 1991. The findings were similar to site analysis findings in 1987. Arsenic and chromium were detected in soils and groundwater, off-site along the abandoned railroad right-of-way east of the site. Nitrates were detected in every groundwater sample collected. Current and future potential risks were calculated for the BRA. For pesticides chlordane, DDD, DDE, DDT, dieldrin and toxaphene, current risk from exposure to groundwater was calculated for workers on-site and at downgradient businesses. Future potential risk from exposure was calculated on the assumption the site could become residential. Both of these risk values were within the range 10^{-4} to 10^{-6} , determined to be protective by EPA. (State standards specify a 10^{-6} risk value) Arsenic and nitrates were calculated separately: arsenic because it causes a different form of cancer than the other carcinogens, nitrates because the adverse effects caused in infants occur at significantly lower doses than in adults.

Arsenic and chromium are believed to be residuals from herbicides sprayed by the rail company along the right-of-way in the past; therefore, they are not site-related and beyond the scope of the BRA. However, carcinogenic risk from exposure is above the acceptable range. Also, nitrate contamination appears to be not site-related. Because they were in every groundwater sample collected, nitrates are likely due to heavy use of fertilizers in the largely agricultural area. Nitrates are also above acceptable risk standards. The right-of-way has been referred to EPA's Site Assessment Section for further consideration, and the nitrate results have been reported to state and local officials.

The BRA indicates the January 1990 excavation of the on-site contaminated soil reduced exposure risk from site-related pesticide contaminants to levels that are protective of human health and the environment.

The EPA Record of Decision (ROD) was signed in June 1992. A "No Further Action" alternative was selected for soil because no significant source of soil contamination remained on-site. Due to the lack of a discernible groundwater contaminant plume, a "No Action with Monitoring" alternative was chosen for groundwater. In-line filters capable of removing the contaminants of concern have been installed on the private wells in which pesticides were detected, and post-installation water analyses indicate levels below detection. Groundwater will be monitored quarterly by EPA for one year to verify that no site-related release of contaminants is occurring.

The DEP Letter of Concurrence was signed in September 1993, with the stipulation that filters continue to be installed on contaminated private wells, and groundwater monitoring will include all existing wells and three additional permanent wells.

Following one year of monitoring, DEP and EPA have reconfirmed that "no action" remains appropriate for the site. The DEP concerns regarding the arsenic and chromium contamination have been alleviated, since it is clear that these contaminants are not site-related, found only along the right-of-way, and in very small quantity. The contaminated private wells in the area have been reported to the DEP Water Resources Section and added to the filter monitoring program, where appropriate action is decided regarding filter replacement. These actions will ensure that residents using private wells are protected from contaminants in their drinking water. The EPA has consequently begun taking steps to delete the site from the NPL.

In July 1995, the FDEP concurred with the EPA to delist the Woodbury site from the NPL. Five year reviews will not be conducted by the EPA because contaminant levels do not restrict access to the site or limit its use. The EPA published its "Notice of Intent to Delete" in the Federal Register in August of 1995. The site was delisted from the NPL in November 1995.