

Upsilon Davis
2196 Northwest 17th Avenue
Miami, Florida
County: Miami – Dade
District: Southeast
Site Lead: Bureau of Waste Cleanup
Approved for Cleanup: January 15, 1995
HWC # 105

Site Description and History

The Upsilon Davis Plating site (a.k.a. Far Mac Plating) is an abandoned metal plating shop located in a light-industrial area 2.5 miles northwest of downtown Miami in Section 27, Township 53S, Range 41E at 25° 47' 50.5183" N, 80° 13' 25.2108" W. The site is bound by NW 22nd Street to the north, NW 17th Avenue to the east, and adjoining properties to the west and south. The 0.13-acre site is paved with gravel and crushed asphalt. The site operated as Far Mac Plating from 1965 to 1987 and Upsilon Davis Plating and Supplies (Upsilon Davis) from 1987 until closure in March 1990. Electroplating included brass, chrome, copper, gold, nickel, and silver. Before plating, articles were cleaned in large vats containing caustics and acids. In March 1990, Upsilon Davis went out of business and abandoned the facility. In June 1990, the property was sold in a foreclosure auction.

Threat

The site is on top of the Biscayne Aquifer, which is the sole source aquifer for Dade County. Local soils are highly permeable. Vats holding liquids and sludge containing arsenic, cadmium, lead, and cyanide remained onsite when the facility was abandoned in March 1990. The vats exhibited fractures and pinholes. Floors throughout the facility were stained and laden with dust from metal polishing and grinding. The soil onsite was stained, indicating chronic release of contaminants. In August 1990, the Dade County Department of Environmental Resources Management (DERM) observed a discharge of electroplating waste into a storm drain within the public right-of-way.

Response Strategy and Status (June 2011)

In August 1990, DERM was notified of liquids leaking from a vat at the site onto the ground and into the right-of-way. DERM ordered the new property owners to implement an emergency response cleanup. Soils contaminated with chromic acid were excavated and stored onsite in 55-gallon drums.

In January 1991, the Florida Department of Environmental Protection (DEP) Southeast District (SED) Office took over regulatory responsibility of the site from DERM. The SED issued a Warning Notice to the property owners regarding the August 1990 spill. In March 1991, the SED met with the property owners to discuss facility cleanup and closure. The SED notified the

property owners in June 1991, of its intention to formalize cleanup conditions through a Consent Order, and submitted the Consent Order in September 1991. The property owners informed the SED in October 1991, that they were no longer willing to enter into a Consent Order since they were not responsible for past contamination at the site. Subsequently, the owners filed suit in Dade County Circuit Court to void the property sale.

In December 1991, the SED filed a Case Report with the DEP Office of General Counsel (OGC), recommending that OGC file a complaint against the property owners for failure to address site contamination. In February 1992, Dade County Circuit Court issued a Declaratory Judgment that voided the property sale.

In January 1992, at the request of the SED, the EPA sampled onsite soils and wastes contained in the onsite vats. Analyses indicated the contents of the vats were hazardous and that soils contained chromium levels that characterized it as hazardous waste. The EPA's Emergency Response Group removed the plating wastes in December 1992. The EPA completed removal of all remaining hazardous materials at the facility in March 1993.

In May 1993, a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Preliminary Assessment by the DEP Technical Review Section determined the site was ineligible for the National Priorities List. The SED office subsequently requested the Bureau of Waste Cleanup perform a State-funded cleanup of the site. In February 1994, the DEP Hazardous Waste Cleanup Section completed a file review of the site and concurred that the site was eligible for State-funded cleanup through the Water Quality Assurance Trust Fund. The OGC completed an enforcement review in July 1995 and concurred with the Hazardous Waste Cleanup Section's recommendation. In January 1995, the site became a state action site.

In July 1995, the DEP tasked Camp, Dresser and McKee (CDM), to prepare a Contamination Assessment Work Plan, which CDM completed in September 1995. In November 1995, CDM performed the initial assessment activities at the site, which consisted of installing four monitoring wells and collecting groundwater and soil samples.

The Contamination Assessment Report was submitted in March 1996. Arsenic and lead were detected in soil samples exceeding Florida soil cleanup guidance goals. Groundwater from onsite wells contained chromium and nickel above primary drinking water standards.

In April 1996, the DEP filed an Administrative Order for Access for remedial action at the site. In May 1996, the DEP tasked CDM to design a soil removal action at the site. A remedial subcontractor was selected in July 1996, and the removal of 155 tons of contaminated soil was completed in September 1996. An additional downgradient offsite monitoring well was installed during the soil removal.

Luis Idarraga leased the Upsilon Davis property from the Miami – Dade government for the purpose of operating an auto body shop. Mr. Idarraga purchased the property in 2002, and

continues to operate the Ley Auto Body Shop. Miami – Dade County DERM has issued a notice of violation for petroleum products and is currently investigating the shop's activities.

The results of annual groundwater monitoring from 1996 through 2002 suggested a residual source of nickel in the soil that was contributing to groundwater contamination. The DEP leaching Soil Cleanup Target Level (SCTL) for nickel was 26,000 mg/kg at the time of the original September 1996 soil removal, but has since been lowered to 130 mg/kg. In December 2002, the DEP tasked Shaw Environmental to delineate the nickel contamination in the soil to 5 feet below land surface (bls), based on the revised leaching SCTL for nickel. The highest concentrations of nickel (24,600 mg/kg) were found in the area of the previous soil removal. A synthetic precipitate leachate procedure (SPLP) was performed, and indicated that removal of soil containing nickel at a concentration equal to or greater than 2,700 mg/kg would eliminate leachable concentrations of nickel contributing to groundwater contamination above the Groundwater Cleanup Target Level (GCTL) of 100 µg/L. Based on these results, the DEP concurred with Shaw's recommendation to remove and dispose of the nickel-contaminated soil.

In September 2003, the DEP tasked Shaw to excavate 572 tons of nickel-contaminated soil. The soil was disposed of in a non-hazardous landfill. Shaw completed the excavation and disposal in November 2003.

The boundaries of the nickel-impacted soil extend beyond the excavation boundaries to the north beneath the adjacent sidewalk/utility right-of-way and to the south beneath the covered work area. These outer areas were not excavated due to the risk of compromising the integrity of those structures. Additional soil assessment and delineation activities were conducted in August 2007, to identify additional source areas. The results of the supplemental soil assessment have confirmed the presence of nickel in the vadose zone up to 6,100 mg/kg at 4 ft bls and below the vadose zone with concentrations up to 810 mg/kg at 14 ft bls. Notification that the contamination extends offsite was conducted on July 1, 2005. No significant changes have occurred in the groundwater.

Final delineation activities were performed in July 2008. Samples were collected along the western property boundary from 2 ft to 8 ft bls. The data indicate concentrations of nickel that exceed the Leachability SCTL from 4 to 6 ft bls. The September 2010 Annual Groundwater Report indicated concentrations of nickel in groundwater samples collected from monitoring wells located on the site exceeded the GCTL. The persistent nickel concentrations are likely due to leaching from the remaining nickel-impacted soil.

Schedule

The need for additional excavation will be evaluated in the future, pending available funding. Annual groundwater monitoring will continue at the site.