

# Genzale Plating Company

New York

EPA ID#: NYD002050110

## EPA REGION 2 Congressional District(s): 04

Nassau  
Franklin Square on Long Island

NPL LISTING HISTORY  
Proposed Date: 6/1/1986  
Final Date: 7/1/1987

## Site Description

The 1/2-acre Genzale Plating Company site comprised a metal-plating facility, an attached two-story office building and an undeveloped backyard area which served as a parking lot and storage area. Beginning in 1915 through 2000, the facility electroplated small products such as automobile antennas, parts of ball point pens, and bottle openers and is known to have discharged wastewater containing heavy metals as well as organic contaminants into four sub-surface leaching pits at the rear of the site. Although the facility was connected to the municipal sewer system in 1955, a 1981 Nassau County Department of Health (NCDH) inspection found that industrial wastewater continued to be discharged into the on-site leaching pits. The company was ordered by NCDH to cease the discharge and began, but never completed, the excavation of sludge and contaminated soils from the pits. The New York State Department of Environmental Conservation (NYSDEC) conducted an investigation of the Genzale site in 1983 to determine the potential threat to public health posed by potential off-site migration of contaminants into the groundwater. As a result of this investigation, the site was added to the NPL. The site is situated in a densely populated residential area. There are seven supply wells located within one mile of the site. The nearest, the Franklin Square Water District well, is 1,400 feet southeast of the site. This water district supplies water to approximately 20,000 people. Another 32,000 people are supplied by West Hempstead-Hempstead Water District wells which are located within 3 miles of the site. The site is above Long Island's sole-source aquifers for municipal and private water supplies.

Site Responsibility: This site is being addressed through Federal actions.

## Threat and Contaminants

Chromium, cadmium, and nickel were detected in both on-site and off-site groundwater monitoring wells. In addition, on-site wells showed contamination by volatile organic compounds (VOCs). However, residents are not at risk of drinking this contaminated groundwater water as they receive their drinking water from public water supplies which are routinely tested to ensure compliance with state and federal drinking water standards.

## Cleanup Approach

This site has been addressed in two stages: two long-term response actions focusing on cleanup of the on-site soils and groundwater, and the investigation of downgradient groundwater.

### Response Action Status

Previous Actions: In 1982, the potentially responsible party partially completed sludge removal and soil excavation from the leaching pits.

Site Soils and Groundwater: In 1988, the EPA initiated the first phase of an investigation to determine the nature and extent of contamination at the site. The study indicated that on-site soils and groundwater were contaminated with both inorganics and organics. In early 1991, a remedy was selected and documented in a Record of Decision (ROD). The remedy included the treatment of contaminated soils by soil vapor extraction (SVE) for organics contamination, followed by excavation and off-site treatment of soils for metals contamination. The design of the selected remedies was begun in late 1991 and was completed in September 1994. Construction activities for the soil vapor extraction unit were completed in July 1995. After approximately one year of operation, in May 1996, confirmatory soil sampling established that the soils had reached clean-up levels for organics and the unit was shut down and dismantled. EPA performed detailed sampling of the soils following the SVE action in order to delineate the metal contamination in a precise fashion. The excavation of soils contaminated with metals was completed in the fall of 1997.

In May 2000, the Genzale plant ceased operations. The facility set aside funds for the decommissioning of the operational part of the site and the removal of the wastes generated during the decommissioning. The wastes were exported off-site for disposal. Decommissioning activities were completed in June 2000. Following the cessation of operations at the facility, EPA sampled the soil and groundwater underlying the vacated plant building. This sampling indicated the presence of additional inorganic and organic contamination. Based on the additional contamination found underneath the former plant building, EPA performed air monitoring in nearby residences, which showed that some homes located immediately adjacent to the former plant had elevated levels of trichloroethylene (TCE). Three of these homes, adjacent to the site, had levels of TCE vapors above acceptable health-based levels and treatment systems were installed. In order to construct an SVE system to address the organic contamination underlying the vacated plant, which was believed to be the source of the TCE vapors, it was necessary to demolish the former plant building to the basement structure. This was performed in Summer 2003 and the SVE system was installed and operated from September 2003 until the remainder of the building was demolished in March 2005. Subsequent ambient air samples in the affected homes showed this system to be effective in reducing the TCE contamination.

Once the contaminated soils and remaining process building remediation was completed, a groundwater extraction and treatment system was constructed in accordance with the 1991 and 1995 RODs. This system was completed in September 2005 and is currently operating. This system will operate at the site until it is confirmed that the site no longer poses a threat to the local aquifer system.

**Downgradient Groundwater:** Based on the results of the initial investigation, a second investigation was conducted to study groundwater contamination downgradient of the site. The study was completed in early 1995. No significant downgradient groundwater contamination was detected, therefore the nearby water supplies were not a risk of contamination and further off-site groundwater remedial action was not warranted. This decision was documented in a September 1995 ROD.

## Cleanup Progress

After adding the Genzale Plating site to the NPL, EPA conducted an initial evaluation and determined that no immediate actions were needed.

A SVE unit operated from May 1995 to July 1996, when soil clean-up levels, as mandated by the ROD, were achieved. Approximately 32,000 tons of soils were cleaned up. About 50 pounds of volatile and semivolatile organics were removed during the SVE operation. During the summer of 1997 more than 5,500 tons of soil contaminated with metals were removed from the site and replaced with native sand.

In May 2000, the Genzale plant ceased operations and decommissioned the operational part of the site, removing the wastes generated during the decommissioning. The wastes were exported off-site for disposal. Decommissioning activities were completed in June 2000. Subsequently, EPA sampled the soil and groundwater underlying the vacated plant building. This sampling indicated the presence of additional inorganic and organic contamination. EPA installed an SVE system as described above to address the additional organic contamination.

Analysis of the efficacy of the SVE system identified that a buried tank at the rear of the former process building was a source for the VOC contamination at the site. An Explanation of Significant Differences report was issued by EPA in July 2004 which described this finding and the measures necessary to remediate this additional problem. Demolition of the basement of the process building began in February 2005 and the contaminated soils were subsequently excavated. The areas of contaminated soils have been excavated to a minimum depth of 15 feet; excavation was deeper where necessary. The limits of the excavation were determined by the testing of the soils at the edges and bottom of the excavations to assure that no contaminated soils remained which would adversely impact the aquifer below the property. These soils have also been taken off-site for disposal. All excavations have been backfilled with clean soil. A total of approximately 3350 tons (2000 cubic yards) of soils, concrete and plating wastes were excavated and properly disposed off-site during the period of March to June 2005.

Immediately following the excavation of the site, new monitoring wells were installed to sample the aquifer beneath the property. Analysis of the groundwater showed that the remediation has positively impacted the groundwater quality, but the residual contaminant levels observed still warranted the building and operating the groundwater extraction and treatment system selected in the 1991 ROD for the site.

Construction began in July 2005 and was completed in September 2005. The system is based on ion-exchange technology and was designed to primarily address the heavy metals contamination. A final activated carbon scrubber in the system addresses any residual VOC contamination. This system will be operated until EPA has determined that the groundwater contamination beneath the site is below health-based standards.

## Site Repositories

Franklin Square Public Library; Franklin Square, NY, 11010