



FORMER PEMCO CORPORATION PROPERTY

What You Need to Know

The 19.97-acre Former Pemco Corporation property is located at 5601 Eastern Avenue in Baltimore City, Maryland. The site is situated on the south side of Eastern Avenue, across from the Johns Hopkins Bayview Hospital. Bonsal Street bounds the site to the east, beyond which the land use is primarily residential, Umbra Street bounds the site to the west, beyond which the land use is primarily commercial and I-95 bounds the site to the south. The facility produced specialty glass ("frit"), ceramic enamels and inorganic pigments from approximately 1910 until operations ceased in September 2007. The site currently contains 13 vacant structures formerly used for manufacturing, laboratory and warehouse space, primarily located in the northern portion of the property and an approximately six-acre inactive industrial landfill referred to as "Crystal Hill", located on the southern and western portions of the property. The landfill was a former ravine with a small, unnamed southwest flowing stream located in the western and southwestern area of the property which received waste frit, smelter refractories, packaging materials and general facility trash until 1979. In 1980, the former landfill area was capped and revegetated, and a concrete storm sewer was extended to eliminate contact between the landfill toe and the small stream. The property historically contained nine underground storage tanks, with capacities ranging from 500 gallons to 12,000 gallons, which were primarily used to store diesel fuel, #2 fuel oil and gasoline.

Topographically the property slopes to the south west from a high of 120 feet above mean sea level to a low of 60 feet above mean sea level. Surface drainage is directed to the southerly flowing Gorsuch Creek located south of the property. Public water and sewer service is supplied to the property and the area by the City of Baltimore.

Site History

The facility was originally owned and operated by Pemco Corporation. The Pemco name has been retained throughout the facility's operation. In 1955, the Pemco plant was sold to Glidden-Durkee Corporation, which became a division of the SCM Corporation in 1967.

In October 1977, the Pemco facility submitted a Designated Hazardous Substance (DHS) permit application to the State for storage and disposal for state regulated wastes.

In April 1979, the Department of Natural Resources, Water Resources Administration (WRA) issued a cleanup order requiring the Pemco facility to stop the on-site disposal of waste; the removal of all piles of waste frit; the extension of storm drains through the landfilled area; a cap and vegetative cover over the fill area; and submission analyses for all outfalls regulated under the National Pollutant Discharge Elimination System (NPDES) permit.

In 1980, the Pemco facility was sold to Mobay Chemical Corporation and received facility number MD0003093499 as a Resource Conservation and Recovery Act (RCRA) generator, transporter, and treatment facility for hazardous waste. Pemco later withdrew their hazardous waste facility permit and is now regulated as a Controlled Substance generator. The facility also discharges treated waste water which is regulated under NPDES permit number 79-DP-0317.



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In 1992, Mobay Chemical Corporation sold the facility to Miles Inc. In 1995, Miles Inc. sold the facility to Bayer Corporation and in October 1997, the facility was transferred to the Pemco Holding Corporation. In April 2014, the property was purchased by the current owner, TRP-MCB 5601 Eastern LLC.

Environmental Investigations

In March 1979, the U.S. Department of Agriculture, Science and Education Administration conducted soil analyses on gardens and related soils on Umbra Street at the request of the Southeast Community Organization. The soil samples were collected from both banks of the unnamed stream on the Pemco property. Results of the analysis revealed elevated levels of lead (up to 638,000 parts per million [ppm]) in the eastern bank sample located nearest the landfill.

In May 1979, the WRA collected soil, surface water and groundwater samples in response to the Pemco DHS permit application. Elevated levels of arsenic, barium, cadmium, chromium and lead were detected in the soil, surface water and groundwater samples.

In February 1982, JRB Associates completed a *Hazardous Waste Site Assessment Report*. The report included a review of the historical data and indicated the potential for off-site migration of heavy metals and possibly caustics and solvents.

In 1982, the Maryland Department of Health and Mental Hygiene performed a *Preliminary Assessment* that addressed concerns related to the waste dumped into the ravine.

In 1984, NUS Corporation completed a *Site Inspection (SI)*. Samples from a shallow monitoring well revealed elevated levels of arsenic (62 parts per billion [ppb]), cadmium (9.3 ppb), and lead (250 ppb). Samples collected from two seeps on the western and southern slopes of the landfill revealed lead (150 ppm) and cadmium (1.6 ppm). Since there were no apparent pathways for migration of these contaminants, the toxicological evaluation concluded that there was no threat to either human health or the environment.

In 1999, the Maryland Department of the Environment (MDE) conducted a *Site Survey* that recommended future investigation due to insufficient data concerning the discharge of contaminated groundwater from the landfilled area.

In 2013 the United States Environmental Protection Agency ("EPA") issued a determination that VOCs in ground water do not extend to the downgradient property boundary at levels above MCLs. The data also indicated that any vertical migration is limited to the underlying Arundel Clay aquitard. The study included the installation of 92 soil borings across the site, 14 ground water monitoring wells, analysis of 111 soil samples for inorganic and organic constituents, 24 soil gas samples were collected from throughout the site for volatile organic compounds (VOCs), five rounds of landfill gas sampling (December 18, 2006, January 24, 2007, February 27, 2007, September 12, 2007 and December 2010) and a methane extraction and recovery test.



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Additional soil and soil gas sampling was required by the Voluntary Cleanup Program (V) after a second application was received in 2014. Soil sampling conducted at the site during the multiple investigations identified elevated levels of metals, ("VOCs"), semi-volatile organic compounds ("SVOCs"), and petroleum compounds. Groundwater sampling identified elevated concentrations of VOCs, SVOCs and metals. Soil gas sampling identified elevated levels of methane within the central portion of the former landfill and chlorinated VOCs in several areas of the site.

Current Status

In December 2006, the PEMCO Corporation entered into the Facility Lead Program with Region 3 so that RCRA Corrective Action activities could be conducted under the Region 3 Facility Lead Program concurrent with the VCP application process.

On February 23, 2007, PEMCO Corporation submitted an application to the VCP as a responsible person seeking a No Further Requirements Determination for Tier 2B (Commercial Restricted) future use of the property. The application was accepted on August 12, 2013 and a Response Action Plan ("RAP") was required to address contaminants in the soil, ground water and soil gas at the site and potential risks from elevated levels of methane detected at the former landfill. A RAP was submitted to the Department on September 23, 2013. The VCP application was withdrawn prior to the required public informational meeting.

A subsequent VCP application was submitted by TRP-MCB 5601 Eastern LLC as an inculpable person seeking a Certificate of Completion for Tier 1B (Residential Restricted) future use of the property on September 29, 2014. The property was accepted in to the VCP with the requirement to submit a new RAP on August 12, 2015. A proposed RAP was submitted to the VCP on November 11, 2015 and a public meeting was held on November 30, 2015 at the Best Western hotel on O'Donnell Street. The revised RAP dated April 18, 2016 was approved by the Department on May 5, 2016. The RAP includes the remedies proposed to address impacted soil, soil vapor and groundwater contamination in conjunction with the planned site development. The remedies include removal of petroleum contaminated soil associated with the former underground storage tanks, installation of vapor barriers in new construction, vapor abatement, capping contaminated soils, appropriate soil management and dust control during demolition and development, and notification and maintenance requirements once the RAP activities have been completed.