



Kane and Lombard Street (BMI MD1069)

What You Need to Know

Site Location

The Kane and Lombard site is located in Baltimore City at the intersection of Kane and Lombard Streets. The site consists of approximately 8 acres south of Lombard Street and approximately 17 acres north of Lombard Street. The southern portion, which is adjacent to Patterson High School, is currently a golf driving range and parking lot. The northern portion is used by several commercial properties, including PICORP Inc., which stores shipping containers.

Site History

Between 1962 and 1964, excavation and dumping occurred on the 17-acre portion, north of what later became Lombard Street. These disposal practices proceeded further south, past the line that would later become Lombard Street, between 1964 and 1966. By 1971, much of the disturbed area had been filled and construction of Interstate 95 was underway. Between 1971 and 1982, the excavated areas west, north, and east of the southern portion had been filled and developed.

Environmental Investigation

In 1980, several hundred drums were identified on the southern portion. After several unsuccessful attempts to compel action by the site owners, Maryland requested assistance from the U.S. Environmental Protection Agency (EPA). In 1984, EPA removed over one thousand drums and the upper six inches of soil beneath the drums and transported these wastes to permitted disposal facilities. Approximately 800 drums were classified as empty, while the contents of the other drums included chlorinated organic compounds, polycyclic aromatic hydrocarbons, phthalates, polychlorinated biphenyl compounds (PCBs) and metals. Following the removal action, a compacted clay layer was installed in the base of the excavation (above the remaining waste fill).

The site was included on the EPA's National Priorities List (NPL) in June 1986. In order to facilitate the investigation and cleanup process, the site was divided into two operable units. Operable Unit 1 (OU1) addresses contamination in soils and shallow groundwater beneath the site's southern portion. Operable Unit 2 (OU2) addresses the remainder of the former landfill (north of Lombard Street) and the groundwater impacted by the wastes disposed of at the site.

EPA issued the Record of Decision (ROD) for OU1 on September 30, 1987, which specified the cleanup action. The selected remedy was a multi-layer cap and slurry wall around the site, combined with dewatering of the first water-bearing zone contained within the wall. Construction of the remedy was completed in August of 1990. Operations and maintenance activities are ongoing for OU1. Any water withdrawn from the extraction wells is discharged to the City of Baltimore sanitary sewer system following pre-treatment.

Investigation of OU2 began in 1985 with a preliminary assessment of the property by Maryland. In 1990, the Maryland Department of the Environment (MDE) initiated a Remedial Investigation (RI) at OU2. This study was discontinued in 1993, when EPA and several potentially responsible parties (PRPs) associated with the Kane and Lombard site entered into an Administrative Order to perform a Remedial Investigation/Feasibility Study (RI/FS). The OU2 RI/FS was completed in July 2002.

The main contaminants of concern, chlorinated organic compounds, were detected in the subsurface soils and in the groundwater in the Upper Patuxent aquifer. EPA issued a Proposed Remedial Action Plan for OU2 in late December 2002 and held a public meeting in January 2003. The OU2 ROD was finalized in September 2003.

The 2003 OU2 ROD specified Enhanced Reductive Dechlorination (ERD) for the contaminated groundwater plume. This technology specifies that the contaminated groundwater be re-circulated in wells screened within the groundwater and a carbon nutrient source periodically added to these wells. The nutrient source promotes the growth of indigenous microbes that are expected to enhance the dechlorination process. The specified remedy also includes a soil management plan, institutional controls and groundwater use restrictions.

A pilot study of the ERD technology was conducted and it was determined that the planned ERD method is not sufficient to meet the cleanup objectives. Accordingly, EPA re-evaluated the alternative remedial options to select a more effective action for the groundwater. A second pilot study, using groundwater pumping and treatment with ozone to remove the chlorinated organic compounds and a flocculation/sludge dewatering process to reduce inorganic content in the groundwater, began in 2016. The system discharges the treated groundwater to a local surface water body under a Maryland National Pollutant Discharge Elimination System (NPDES) permit.

EPA asked the PRPs to evaluate the potential for vapor intrusion (VI) into buildings on the northern portion of the site. This evaluation resulted in the installation of Sub-Slab Depressurization Systems at two of the properties on OU2 in 2016.

Current Status

A Focused Feasibility Study (FFS) is being conducted to evaluate cleanup options for the groundwater and soil at OU2.

Planned or Potential Future Action

Following the FFS, the EPA, in coordination with MDE, will select the appropriate cleanup action for OU2. The EPA is expected to issue a Proposed Remedial Action Plan in 2022 to notify the community and invite public comments on the proposed cleanup actions. In addition, the EPA may hold a public meeting to discuss the plan.