



U.S. ENVIRONMENTAL PROTECTION AGENCY REGION III

DELAWARE, MARYLAND, PENNSYLVANIA, VIRGINIA, WEST VIRGINIA, AND THE DISTRICT OF COLUMBIA

STANDARD CHLORINE OF DELAWARE SUPERFUND SITE: SITE UPDATE

New Castle County, Delaware

February 2018

The Standard Chlorine of Delaware, Inc. Site (also known as Metachem Site) is an approximately 65-acre site located three miles northwest of Delaware City, DE. Chlorinated benzene compounds were manufactured at the facility from 1966 to 2002. The Site was listed on EPA's National Priorities List (NPL) of hazardous waste sites in 1987. Chlorobenzenes from multiple chemical spills at the facility have contaminated groundwater, soil, sediments in Red Lion Creek, surface water and nearby wetlands. Since 2002, EPA and the Delaware Department of Natural Resources and Environmental Control (DNREC) have maintained control of the Site. To address the most hazardous materials, EPA and DNREC removed millions of pounds of abandoned chemicals from the Site and decontaminated facility process equipment. These cleanup activities were performed under EPA's Removal Program and completed in September 2006. In order to continue to address the remaining contamination, process equipment and building structures were removed and the former facility area cleared.

The Site was divided into Operable Units, or OUs, to facilitate the continued cleanup:

OU-1: Interim Groundwater Remedy

- Since 2007, EPA has been operating a groundwater extraction and treatment system to contain and treat contaminated groundwater in the former plant area. Upgrades were made to the system in 2017 to improve performance.
- The interim remedy also includes an underground barrier wall built around the Site in 2007. Repairs to the wall were made in 2015 to address leaks.
- The interim remedy is operating effectively and will continue until a final groundwater remedy is selected (see OU-4 below)
- To date, over 91 million gallons of water have been treated and 62,000 pounds of contaminants removed.

OU-2: Offsite Soils and Sediment

- OU-2 refers to the wetlands near the Red Lion Creek and the area outside of the cap.
- EPA is finalizing a Focused Feasibility Study to identify practical and cost effective alternatives to address the contamination.
- U.S. Geological Survey (USGS) has completed a pilot study using bacteria mixed with granular activated carbon, which showed positive results in decreasing contaminant concentrations. This technology is being evaluated as part of the Focused Feasibility Study.

OU-3: Plant Area Soils (the cap)

- Construction of a multi-layer cap over the area of the former facility was completed in the spring of 2017. The remedy includes a system to remove and treat contaminated vapors that would otherwise build up under the cap.
- Since the spring of 2017, EPA and DNREC have been working to ensure the remedy is operational and functional; confirming that the cap vegetation is established and that the gas collection and treatment system is effectively removing contaminants prior to venting to the atmosphere.
- Site security fencing is installed and institutional controls (ICs), which include activity and use limitations to protect the remedy, are in place at the Site.
- The long-term operation and maintenance of OU-3 was transitioned to DNREC in January 2018.

OU-4: Final Groundwater Remedy

- EPA is reviewing a draft Feasibility Study, which presents and evaluates long-term alternatives to address the contaminated groundwater, in both the shallow (Columbia) and deep (Potomac) aquifers.
- When the Feasibility Study is complete, EPA will submit a Proposed Remedial Action Plan (PRAP) for public comment. EPA will hold a public meeting during the public comment period.

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For more information and to see videos taken during the construction of the cap, please visit:

www.epa.gov/superfund/standardchlorine



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