

**MD-28
Kent County**

- 1951 Lehigh Chemical began to manufacture plastics and polymers.
- 1957 Lehigh moved facility to location on State Rt. 297.
- 1964 Tenneco Chemical purchased Lehigh Chemical.
- 1979 Site listed in Eckhardt Report.
- 1982 Nu-Dex purchased plant.
Hazardous Waste Site Assessment Reports, Final Report completed.
- 1984 DHMH sampled soil and groundwater at the site.
- 1986 DHMH completed *Site Inspection of Tenneco Chemicals, Inc.* report.
- 1989 MDE approved a closure plan for Impoundment 314.
- 1999 MDE concluded the site does not present a risk to Kent County Sanitary District's Worton Water System.

**TENNECO CHEMICALS
Chestertown, Maryland**

Site Location

The Tenneco Chemicals, Inc. facility (now owned by Velsicol Chemical Corporation) is located on MD Route 297, two miles north of the intersection of Maryland Routes 297 and 213 in Chestertown, Kent County, Maryland. The site size is 10 acres. A wastewater treatment plant and sludge-settling basin (lagoon) are located in the northeastern corner of the site. Production facilities and storage tanks are located in the northern portion of the site. The site is situated on the eastern shore of Maryland, in the Coastal Plain Physiographic Province. The area is generally agricultural land. An unnamed, intermittent stream that flows east toward Morgan Creek is ¼ mile east of the site.

Site History

The Chestertown plant began manufacturing plastics and polymers in 1951. During the period 1951 through 1964, the plant was known as Lehigh Chemical Company and was located on Flatland Road in Chestertown, MD. In 1959, Lehigh moved its facility to Maryland Route 297 where the present-day plant is located. In 1964, Tenneco Chemicals bought Lehigh and the plant became known as Tenneco Chemicals, Inc. In 1982, Nu-Dex purchased the plant from Tenneco. The next owner of the plant was Huls America Company who owned the plant in 1989, although it is not known when they purchased or sold the facility. The plant owner in 1999 was Velsicol Chemical Corporation.

The wastes generated at the plant included plasticizers, polar and non-polar solvents, oil and oil sludges, esters, ethers, alcohols, and scrubber residuals. From 1951 through 1964, Tenneco (formerly Lehigh) disposed of 402,000 gallons of liquid wastes and 500 tons of solid wastes at the Kent Price Landfill located on Flatland Road in Chestertown. The Kent Price operation closed in 1964. From 1965 until 1979, Tenneco disposed of 7,245,000 gallons of liquid wastes and 9,000 tons of solid wastes at the Nicholson Landfill located west of Earl Nicholson Road and east of State Route 298 in Chestertown.

Tenneco officials stated in 1981 that chemical process wastes were never disposed of on-site at their Chestertown plant. The only disposal that occurred on site was of some liquid wastes, such as alcohols and plastic scraps, which were used as fuel supplements and burned in on-site plant boilers. Biosludges from wastewater ponds were incorporated into the land at the Chestertown plant using land-farming techniques. The bio-treatment process began in the late 1960s and the land-farming procedures began in 1971 or 1972. Solid wastes were always disposed of elsewhere.

Environmental Investigations

The Tenneco Chemicals site was listed in the 1979 *Waste Disposal Site Survey* prepared by The Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign

Commerce (The Eckhardt Report). The report stated that 30,168 tons of chemical process wastes were disposed of on the Chestertown plant site between 1959 and 1979. An undated U.S. Environmental Protection Agency (EPA) computer printout reported that during the same period, 7,500 tons and 6,037,000 gallons of wastes were disposed of on-site.

A 1982, *Hazardous Waste Site Assessment Reports, Final Report* prepared for the EPA and Maryland Department of Health and Mental Hygiene (DHMH) concluded that probably no disposal other than that described by Tenneco officials (burning of liquid wastes in plant boilers and land-spreading of sludge from on-site treatment plant) had occurred on site. They reasoned that DHMH and Maryland Water Resources Administration inspectors conducting regular inspections of the Tenneco site would have noticed any disposal other than that described. The 1982 report further noted that the Tenneco statements regarding on-site waste disposal contradicted information reported in the Eckhardt Report and the EPA printout, and concluded that one possible explanation for the inconsistencies may have been that the Eckhardt Report forms were filled out incorrectly. The report recommended undertaking efforts to reconcile the inconsistencies in reported quantities and testing of the sludges that are incorporated into Tenneco's land using land-farming techniques and of the liquid wastes and plant scraps that are burned in plant boilers to determine if the substances are regulated under the Resource Conservation and Recovery Act.

In May 1984, DHMH conducted another site inspection of the facility to collect groundwater and soil samples (*Site Inspection of Tenneco Chemicals, Incorporated*, 1986). The site was owned by Nu-Dex at the time. The sample results revealed the presence of heavy metals in on-site monitoring wells. The report concluded the source(s) of contamination had not been identified.

In January 1989, a closure plan for Impoundment 314 was submitted to the Maryland Department of the Environment's (MDE) Groundwater/ Underground Injection Control Permits Division by Huls America Inc. and an addendum to the plan was submitted in April 1989. On May 2, 1989, MDE approved the plan and its addendum subject to a sludge-removal schedule, bioremediation installation schedule, and groundwater monitoring requirements. The groundwater monitoring required (1) quarterly monitoring and reporting until achievement of the remediation goal of 700 parts per billion (ppb) or less phthalates in five groundwater monitoring wells for two consecutive quarters, (2) a final report, and (3) quarterly post-closure monitoring and reporting for one year.

In February 1999, the Kent County Sanitary District asked MDE's Water Management Administration, Water Supply Program, for information on the groundwater contamination at the Velsicol property. MDE reviewed the data and concluded the site does not present a risk to the Sanitary District's Worton Water System. In March 1999, MDE noted that the level of phthalates permitted in drinking water had been reduced to 6 ppb.

Current Status

This site is on the State Master List that identifies potential hazardous waste sites in Maryland. The Master List includes sites currently identified by EPA's Comprehensive Environmental Response Compensation and Liability Information System. EPA has given the site a designation of No Further Remedial Action Planned (NFRAP). The designation of NFRAP by EPA does not mean that MDE has reached the same conclusion concerning further investigation at the site. The information contained in the fact sheet presents a summary of past investigations and site conditions currently known to MDE.

Facility Contacts

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