

**MD-112
Anne Arundel County**

1958	Mobil Oil purchased site from Tidewater Oil.
1967	Crown Central Petroleum purchased site from Mobil.
1981	Notification of <i>Hazardous Waste Site</i> form filed with EPA.
1984	MDMH conducted a <i>Preliminary Assessment</i> .
1988	MDE conducted <i>Site Inspection</i> and detected lead at a concentration that exceeded EPA guidelines for industrial soil.
1989	Same locations sampled; lead was below EPA guidance for industrial soil.
1997	CCP operation closed; Bitumar USA purchased the site from CCP.
2000	Notice of Violation issued when liquid phase hydrocarbons discovered in monitoring wells.
	Owner upgraded the entire remedial system.

**CROWN CENTRAL PETROLEUM
Baltimore, Maryland**

Site Location

The Crown Central Petroleum (CCP) site is located on Pennington Avenue approximately 0.3 mile north of the Baltimore Beltway (1-695) at Ordnance Road, Baltimore, Maryland. The site is west of Curtis Creek, which flows into Curtis Bay, in an industrial area of Baltimore City. Curtis Bay is a tributary of the Patapsco River, which is a tributary of Chesapeake Bay. The geographic coordinates of the site are 39° 12' 40" North and -76° 35' 16" West.

The CCP site consists of five circular petroleum storage tanks arranged in two rows. The eastern section contains two 117 x 42 feet tanks and the western section contains two 60 x 42 feet tanks and one 80 x 40 feet tank. The site is primarily asphalt and concrete cover over artificial fill of dredge spoils and unconsolidated sediments. The site slopes 0 to 5 percent. Curtis Creek, approximately 1,000 feet to the north, is the nearest surface water. An office-warehouse and a storage building are on the site.

Site History

There are no records of when operations started at the CCP site although anecdotal reports indicate the site was a petroleum storage terminal at least since 1944. Tidewater Oil Company originally owned the site until Mobil Oil Company purchased it in 1958. CCP purchased the site in 1967 and owned it until 1997. Bitumar USA, Incorporated is the current owner of the CCP site.

Prior to CCP's ownership of the property, leaded tank bottom sludge was purportedly buried on the southwestern portion of the property in two 8 feet by 10 feet pits. When CCP purchased the site, treatment and disposal of leaded sludge was performed on-site using the weathering method, which involved spreading the sludge in a layer up to three inches thick on the tank-containment dikes. The sludge was left to dry for 30 days. The tetraethyl lead content in the sludge after four weeks was supposedly 20 parts per million (ppm) or less. The sludge was left in place and (or) treated as a non-hazardous waste. The weathering method of treating sludge continued until 1974, at which time the treatment and disposal of sludge was handled off site. The treated sludge may have been buried in the pits although Crown denied ever burying waste material on site.

Since the early 1970s, the site has used an oil/water separator system to treat stormwater runoff within the tank dikes and around the loading terminals. The property is currently used for production of paving and road maintenance and roofing asphalt and storage of associated petroleum products. Approximately 275,000 barrels of petroleum product were stored at the site in December 2000.

Environmental Investigations

In 1981, Crown Central Petroleum filed a *Notification of Hazardous Waste Site* form with the U.S. Environmental Protection Agency (EPA), indicating the company generated tank bottom sludge that was disposed of on site by spreading it on the ground surface.

In 1984, the Maryland Department of Health and Mental Hygiene, Waste Management Administration (WMA), conducted a *Preliminary Assessment* (PA) of the CCP site. The PA was conducted owing to possible contamination of soil and groundwater from buried tank bottom sludge containing tetraethyl lead. The site

was given a low priority status for site investigation due to the lack of residential wells and public-water intakes within a three-mile radius.

In 1988, WMA conducted a *Site Inspection* of the CCP property. A background soil sample was collected for comparison with soils from the proposed sludge pits in the downgradient areas. The samples were analyzed for volatile organic compounds, semi-volatile organic compounds (BNAs), Pesticides/PCBs, total metals, cyanides, and EP toxicity metals. Lead was detected in one soil sample at a concentration of 1,070 milligram per kilogram (mg/kg, equivalent to ppm), which exceeded the EPA's 1,000 ppm guidance for lead in soil of industrial sites.

The following year, 1989, the site was sampled again for lead at the same location. The lead concentration was 886 ppm, slightly lower than the EPA's guidance for lead in industrial soils. High levels of polynuclear aromatic hydrocarbons were detected in soils on the north side of the site, but were below the EPA's Risk Based Concentration (RBC) for PAHs in industrial soils. Several BNAs and toluene were detected, but did not exceed EPA's RBC criteria for industrial soils. No pesticides or PCBs were detected. The laboratory failed to analyze volatile fractions within the prescribed holding time. EPA gave the site a No Further Remedial Action Planned status on the basis of these results.

During CCP's ownership of the property, the site was listed as a large quantity waste generator under the Resource Conservation and Recovery Act ID# MDD 000620989. The site produced varied amounts of waste, which depended primarily on the schedule of tank cleaning and receiving of product(s) for storage. In 1991, the site produced a total waste amount of 44,993 gallons or 26,000 lbs/month. The types of waste produced were mainly ignitable waste oils and (or) petroleum and toxic waste from tank bottom sludge.

CCP operated the site under the Maryland Department of the Environment's (MDE) Oil Control Program (OCP) permit # 96-OP-0047 and State Discharge permit # 96-ODS-3092. The site was officially closed for petroleum storage under CCP ownership in July 1997. Bitumar USA, Incorporated operates under OCP permit # 2000-OPT 5092.

Groundwater monitoring has been conducted at the site since its closure in 1997 and reports have been submitted quarterly to the OCP. In March 2000, OCP issued a Notice of Violation (NV-2000-084) to CCP when liquid phase hydrocarbons were found floating on groundwater in seven on-site monitoring wells. As required by the Notice of Violation, Bitumar installed two additional monitoring wells and surge-blocked the previously installed wells in April 2000. In July 2000, Bitumar upgraded the entire remediation system.

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.

Future Activity

A remediation system consisting of five pneumatically operated, product-only pumps is currently in place and fully operational. Reports on the remediation, submitted to OCP, will continue on a quarterly basis.

Facility Contact

Art O'Connell, Chief

Maryland Department of the Environment
Site and Brownfields Assessments/State Superfund
Division

410-537-3493