

MD-118 Baltimore City

From the 1940s-1980, M&T Chemicals stored chromium sludge and waste water in an unlined lagoon and possibly buried drums containing the wastes.

In 1980, the sludge was removed from the lagoon; in addition, antimony slag storage areas were enclosed.

1982 PA by EPA identified tin, barium, chromium, nickel, and lead as contaminants in on-site soil and groundwater samples.

1988 SI by MDE identified arsenic, chromium, lead and PAHs as contaminants in on-site soil and groundwater samples.

EPA assigned NFRAP status in June 1990.

M&T CHEMICALS/ATOTECH USA, INC. Baltimore Maryland

(MD-118)

Site Description

The M&T Chemicals site, which is now owned and operated by Atotech USA, Inc., is located at 1900 Chesapeake Avenue, on approximately 3 acres of fenced property in Fairfield, an industrial area of southeast Baltimore City. A Chevron Refinery lies across Chesapeake Avenue south of the site, and the B&O Railroad defines the northern and eastern borders. West of the site is a paved area (formerly MRI Corporation) used to hold new automobiles for distribution. The site property and surrounding area is flat lying.

Company offices and manufacturing facilities occupy the southern half of the site. Prior to 1980, antimony sulfide slag was stored in an unenclosed pit north of the manufacturing buildings, and hexavalent chromium sludge and later trivalent chromium oxide sludge were stored in open unlined storage ponds north of the slag pit. Alkaline waste water storage tanks are located west of the manufacturing buildings. Groundwater and surface water likely flow east towards the Patapsco River, located approximately 1500 feet from the site.

Site History

In the late 1940s, M&T Chemicals started a metals recovery operation on the site, involving the salvaging of plated metals. In the 1960s, the plant began the manufacturing of antimony oxide, and blended chrome alloys. In 1977, M&T Chemicals was sold by American Can Company to Elf Aquitaine of France; however, the manufacturing processes remained largely unchanged. American Can Company maintained a portion of the site property under the name of MRI Corporation. MRI Corporation was involved in reclaiming tin from scrap metal until 1982.

The M&T Chemicals facility generated hexavalent chromium sludge and wash water and later, from 1971-present, trivalent chromium oxide sludge. Prior to 1980, the wastes were disposed of on-site in unlined lagoons and possibly buried in steel drums. In addition to the chromium waste products, antimony sulfide slag and alkaline waste water (pH 14) are generated from the antimony oxide manufacturing process. Based on 1997 Annual Reports, Atotech USA, Inc. generates waste antimony pellets, strands and off-spec. products, chromic acid liquids and solids and sodium hydroxide solutions which are shipped off-site to approved licensed facilities.

Environmental Investigations

In 1979, the Department of Natural Resources, Water Resources Administration (DNR/WRA) required M&T Chemicals to cease the use of the chromium lagoons; the lagoons were then replaced with a holding and filtration system. In 1980, M&T Chemicals was required under the Resource Conservation and Recovery Act to remove the chromium sludge from the lagoon area and to dispose of it at an approved facility, to dispose of chromium wastes off-site, and to store antimony slag in an enclosed storage area. In 1987, the Office of Environmental Programs issued a State National Pollutant Discharge Elimination System permit to M&T Chemicals authorizing the discharge of effluent (unspecified) into storm sewer drains at the site, and required periodic monitoring of the discharge. In 1982, the U.S. Environmental Protection Agency (EPA) Annapolis Office performed a Preliminary Assessment (PA) of the M&T Chemicals site, in which a soil sample was collected from the chromium sludge lagoon and a groundwater sample was collected from a

well previously installed on the former MRI property, adjacent to M&T Chemicals. High levels of tin, barium, chromium, and lead were detected in the soil, and high levels of tin, chromium, lead, and nickel were detected in the groundwater.

As a result, the Maryland Department of the Environment (MDE) conducted a Site Inspection (SI) in November 1988. Nine soil samples were collected from sites on and adjacent to the former chromium sludge lagoon, and three groundwater samples were collected from two monitoring wells installed on the eastern side of M&T Chemicals property. Results from sample analyses indicated the presence of contaminants, particularly heavy metals, in both soil and groundwater samples. In groundwater samples, chromium (20.2-34.4 ug/l) and lead (20.6-32.0 ug/l) were above the EPA's proposed maximum contaminant levels for drinking water. In soil samples, arsenic (≤ 34.5 mg/kg), chromium ($\leq 15,400$ mg/kg), lead ($\leq 3,260$ mg/kg), and polynuclear aromatic hydrocarbons (PAHs; 58-3,900 ug/kg) were found at elevated concentrations.

Current Status

No remedial action or investigation is currently being conducted at the Atotech USA facility. EPA assigned the site No Further Remedial Action Planned (NFRAP) in June 1990. Future investigations and/or remediation will be handled under the authority of the State Superfund Division.

Reference

A Site Inspection of M&T Chemicals Site, Baltimore, Maryland, prepared by the Maryland Department of the Environment for the U.S. Environmental Protection Agency, August 1989.