B&O RAILROAD LANDFILL
Foreman's Corner, Maryland
Anne Arundel County
(MD-362)

Site Location

The B&O Railroad Landfill is located east of the intersection of Fort Smallwood Road (Maryland Route 173) and Kembo Road just south of the border between Baltimore County and Anne Arundel County. There are two on-site ponds and one pond adjacent to the site in addition to two creeks that flow into the Patapsco River. The site is acceptable from Kembo Road and Brandon Shores Road. Though both entrances are blocked by locked gates, the rest of the site is unfenced and is accessible to nearby residents who fish in the ponds and use the site for other outdoor activities.

The areas surrounding the site include: the former Cox Creek Copper Refinery, a dredge spoil area owned by Maryland Port Authority, Baltimore Gas and Electric Brandon Shores Power Plant, a residential/commercial area and the Patapsco River.

Site History

The site was used as a landfill by the B&O Railroad from the early 1950s until its closure in 1973. According to local citizens, unpermitted dumping occurred at the site in the early 1950s. Documented open burning occurred at the site in the 1960s and early 1970s. In October 1972, a sanitary landfill was permitted by the state to operate at the site. The landfill was permitted to receive wastes from rail car and right-of-way cleaning operations. Less than a year later, the landfill was ordered to stop accepting wastes, sue to the failure of the facility's management to implement state-approved plans and specifications for the landfill.

In 1974, regional inspectors of the Water Resources Administration discovered a pool of an oil-like liquid at the southwest corner of the site. This pool was overflowing into a natural channel and draining into the forest surrounding the site. The pool was filled with soil by the B&O Railroad.

In the late 1980s, an emergency removal occurred at the site. Forty to fifty drums of paint wastes were reportedly removed from an area west of the railroad tracks near Brandon Shores Road. The exact date of the removal action is unknown.

Currently, the site is owned and managed by Mount Clare Properties, Inc., a subsidiary of B&O Railroad, which purchased the property in 1984. The property's area is approximately 310 acres of which approximately 200 acres were used for open burning. The actual permitted disposal area is estimated to be 25 acres.

Environmental Investigations

In 1971, Green Associates, Inc. prepared a report entitled *Marley Neck Sanitary Landfill Environmental Considerations and Specifications* for the Chesapeake and Ohio Railway Company, which provided details and specifications related to the site conditions as of January 1971. The details and specifications addressed issues such as: ultimate site development, landscaping configuration, fencing and gates, settlement, signs, dust and odor control, blowing paper, tires and fire protection.

A *Preliminary Assessment of the B&O Landfill* was performed by MDE in 1990. The Preliminary Assessment report recommended a medium priority Screening Site Inspection due to potential impact on the Chesapeake Bay.

MDE conducted a *Focused Site Inspection of B&O Landfill* (FSI) in 1992. Organic and inorganic contaminants in soil, surface water and sediment samples associated with the site were documented. However, the samples collected in 1992 at the B&O Railroad Landfill were not representative of the site since the actual area permitted for landfilling was identified after the completion of the FSI.

Woodward-Clyde Consultants completed a report of environmental investigations entitled *Environmental and Geotechnical Characterization Study CSX Property Foreman's Corner Baltimore, Maryland* in December 1992. The area of concern for this study was east and adjacent to the B&O Railroad Landfill perimeter. The laboratory analyses on samples collected by Woodward-Clyde reveal beryllium in surface water and groundwater at concentrations greater than Maximum Contaminant Level under National Primary Drinking Water Regulations. Beryllium was detected in soil samples at concentrations higher than the proposed Resource Conservation and Recovery Act action level of 0.2 mg/kg.

In March 1997, MDE completed an *Expanded Site Inspection (ESI) of the B&O Railroad Landfill*. The ESI focused on the area permitted for landfilling which was not sampled during the FSI in 1992. Soil samples were collected within the site area at a depth of two to five feet. The maximum concentrations of aluminum, arsenic, beryllium, iron, manganese, vanadium, zinc, aroclors 1248 and 1254, as well as benzo[a]pyrene exceeded the 1997 EPA Region III Risk Based Concentrations (RBCs) for a residential scenario. The cumulative evaluation of the risk to the adult population potentially exposed to the contaminants detected on-site was estimated within the acceptable EPA levels. However, the Hazard Index for the child population exceeded the acceptable risk level. The presence of aroclor 1248 in soil was determined as a risk driver. Surface water and sediment samples were collected from Ponds 1 and 2. Chemicals detected from laboratory analysis were compared with EPA's water quality criteria for the protection of human health. Beryllium was found to exceed this criterion.

In March 2000, MDE completed the second *ESI of the B&O Railroad Landfill*. This ESI was conducted after EPA requested additional information to assess the risk to human health from ingestion of surface soil from the site and the consumption of fish from the on-site ponds. The laboratory analysis on samples collected at the site in 1999 and subsequently analyzed at a CLP laboratory indicate that there is no significant risk posed by carcinogenic compounds associated with the former landfill to human health or the environment. The mercury concentration in composite fish samples analyzed was below the contract required detection limit of 0.10 mg/kg. The consumption of fish from the on-site ponds and the ingestion of surface soil from the site do not pose carcinogenic risk for population. Noncarcinogenic risk attributable to the site exceeded the EPA Hazard Index standard of 1 under a commercial future use scenario for either a child visitor or a construction worker. Based on the available data, MDE has further requirements related to the investigation of hazardous waste at this site, however, recommends the site be "archived" by EPA.

Current Status

Currently, the site is an inactive landfill. Nuisance dumping consisting of small and large appliances, furniture, tires, auto parts and abandoned vehicles were observed on site during the site visit in 1999.

Contract Person

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