Maryland Department of the Environment

FACTS ABOUT:

ROSSVILLE COAL ASH
STRUCTURAL FILL SITE
(VOLUNTARY CLEANUP PROGRAM)

Site Location

The Rossville Coal Ash Structural Fill site (Site) encompasses three separate parcels (3A, 3B and 3C) and totals approximately 32-acres. The site is located at 9114-9200 Yellow Brick Road, 9107-9201 Yellow Brick Road and the west side of Lennings Lane in Rosedale, Baltimore County, Maryland 21237. The site is located in a mixed residential/commercial and light industrial use area. It is bounded to the northwest by residential and commercial properties and Interstate 95 is located beyond. To the south, west and east, the site is bounded by residential, commercial and light industrial properties. Undeveloped land is located adjacent to the east and a CSX rail line and Pulaski Highway (Route 40) are located to the southeast. The closest surface water body is an unnamed tributary to Brien's Run located adjacent to the southern property boundary. Brien's Run discharges into Northeast Creek, which in turn discharges into Back River, approximately 2-miles southeast of the subject property. The topography across the site is extreme at some locations with a surface elevation range between 140 feet mean sea level (msl) in the northwest to approximately 60 feet msl in the southeast. The groundwater table is located between 84 (NW) feet and 24 (SE) feet below ground surface (bgs). Groundwater flow direction varies across the site; in the north western area groundwater flows south west and turns south east. Groundwater is located in the Patuxent Formation in the northwest and in the Arundel Formation in the southeast; however, the two formations appear to transmit water as a single aquifer beneath the site. All surface water drainage is currently directed to a sedimentation basin located in the south eastern area of the site.

Site History

Portions of Lot 3 (current lots 3A, 3B and 3C) were privately owned until 1982, when they were acquired by Resource and Property Management, Inc. which subsequently changed its name to Constellation Properties Inc. A third portion of Lot 3 was acquired by the Baltimore Brick Company prior to 1940 and was eventually sold to Resource and Property Management, Inc. in 1982. In 1997, the property (all three lots) was transferred to Baltimore Gas and Electric Company (BGE). In 2001 it was transferred to Constellation Power Source Generation, Inc. (CPSG). Portions of the property may have been previously used for agricultural purposes prior to 1957. Between 1957 and 1971, the site appeared to have been overgrown with vegetation and was unoccupied. Between 1971 and 1979, the Baltimore Brick Company mined clay on-site from the Arundel

Formation. In 1982, BGE received a permit from the Department of Health and Mental Hygiene (DHMH), to reclaim the former clay mine using coal fly ash structural fill collected from the combustion byproduct of burning coal. Between June 1983 and October 2007, the site was reclaimed with fly ash collected from the C. P. Crane, Brandon Shores and H.A. Wagner power production facilities. Between 1983 and 1995, fly ash was transported to the site from the C.P. Crane facility, which had obtained State and federal approval to co-fire approximately 325,000 gallons of PCBs contaminated oil (between 49-500 ppm), approximately 550,000 gallons of non-PCB contaminated oil and refuse derived fuel. BGE transferred ownership of the site to CPSG in October 2001. On February 8, 2001, CPSG received a transfer notice for BGE's general permit.

The coal ash deposited on-site extends a maximum depth of approximately 30 feet bgs and the reclamation areas have been capped using a 6 inch thick clay layer (previously rated permeability of 1×10^{-6} cm/sec) and 6 inch thick top soil with vegetation cover. The site is located in a groundwater use area and the closest potable well is located approximately 1,100 feet east of the subject property.

Environmental Investigations And Actions

On July 15, 1982, BGE applied to DHMH for a permit to develop the Rossville site by reclaiming the former clay mine with coal fly ash structural fill. On October 26, 1982, the Baltimore County Department of Health issued a special Waste Disposal Facilities Permit to operate an industrial fly ash disposal site at Rossville based upon the permit application. On January 26, 1988, the Maryland Department of the Environment (MDE) issued a validated Industrial Waste Disposal Permit to dispose fly ash structural fill at the Rossville site. On March 29, 1988, MDE issued a modification to the reporting requirements of the Industrial Waste Permit. On April 27, 1988, MDE issued a Pozzolan exemption for the disposal of coal fly ash structural fill material. The exemption effectively voided the previous permits by deregulating the disposal of Pozzolan materials from solid waste regulations. After the deregulation, BGE voluntarily continued to operate and monitor the disposal facility under the permit requirements.

Numerous subsurface studies and investigations related to the permit application had been conducted at the Rossville site prior to its submission in 1982. Additional groundwater monitoring wells were installed on-site in November 1999, December 2006 and August 2009. Voluntary quarterly groundwater monitoring continued on-site since the Pozzolan exemption was issued in 1988. Three off-site drinking water wells located within a one-mile radius have been periodically monitored since September 2007. In August 2008, a Phase I Environmental Site Assessment (ESA) was conducted on the property that identified recognized environmental conditions associated with coal fly ash used to reclaim the former clay mine. In August 2008, a Phase II ESA was conducted to evaluate the limits of the landfill cells, determine the current condition of the capping

material, identify the ash composition and detect the presence of moisture within the landfill cells. The investigation revealed that fly and bottom ash were located in areas of the property located outside the landfill cells and elevated levels of metals were identified in the soil, sediment and groundwater beneath the site. In September 2010, a supplemental investigation report was conducted to define the limits of landfill cells, to determine the extent of ash deposition located outside the cells and to identify if mercury soil vapor could migrate from the buried ash. The investigation revealed unconsolidated buried CCBP in areas outside of the landfill cells, but within the property boundary and non-detect concentrations of mercury soil vapor within the landfill cells.

State Assessment and Remediation Division

On April 15, 2013, the Department requested an off-site groundwater investigation to determine the extent of contamination.

Current Status

On August 20, 2008, CPSG submitted a Voluntary Cleanup Program (VCP) application seeking a Certificate of Completion as a responsible person. Future property use was indicated as Tier 2B, restricted commercial or Tier 3B restricted industrial land use. On April 14, 2011, the Department completed a final review of the application package and accepted the property into the program for a Response Action Plan. The Department is currently reviewing a revised response action plan.