MD-308
Howard County

In January 1987, HSWMA personnel performed a CHS inspection and collected production well samples in response to a citizen's query. VOC contamination was detected.

In April 1988, Chester Engineers performed a soil gas survey for JHAPL that confirmed chlorinated solvent contamination in a landfilled area, a former paint shop and electroplating building.

In 1989, HSWMA personnel visited and inspected the site several times and found numerous CHS violations. As a result, Complaint and Order #C-0-90-037 was issued in August 1989.

In November 1990, JHAPL and MDE entered into Consent Order CO-90-074 that directed JHAPL to provide furthers environmental assessment.

In December 1992, MDE completed a Focused Site Inspection.

In September 1994, MDE completed an Expanded Site Inspection.

In September 1996, MDE approved a long term quarterly groundwater and surface water monitoring program to track VOC contamination that JHAPL began in October 1996.

In April and August 1999, MDE approved modifications to the groundwater monitoring program that eliminated surface water sample collection and reduced collection frequency from quarterly to semi-annually.

Johns Hopkins Applied Physics Laboratory
Laurel, Maryland

Site Location

The Johns Hopkins Applied Physics Laboratory (JHAPL) is located at 11100 Johns Hopkins Road, Laurel, Maryland. There are two sites of concern on this property. One is a former landfill that operated on the property during the 1950s and 1960s that is located in the northeastern portion of the property. The other is an area known as the Building 24/39 (B24/39) area that is located in the south central portion of the property and remains active. The former landfill, which was used for waste disposal, is approximately two acres in size.

Site History

Johns Hopkins University acquired the 365-acre property in the 1950s by purchasing three parcels of agricultural land. JHAPL began operations at this location in 1954 conducting research for several agencies of the federal government. The landfill operation began at about that same time and received construction materials, office and dumpster trash, and waste from the cafeteria. Accumulated waste was burned weekly, however, this practice ceased in the 1960s. Small quantities of solvents and acidic and caustic compounds may have also been disposed in the landfill. A portion of the landfill area is now paved and is utilized as a parking area. The remaining area is covered with soil and vegetated.

A solvent evaporation pit was operated adjacent to the landfill during the late 1960s to early 1970s. The pit was believed to be several feet deep and lined with plastic. Its exact location is not known and no further information regarding size, times of operation, or amounts of solvents disposed into the pit have been discovered.

The B24/39 area is the location of a former electroplating operation and paint shop where other solvents and hazardous wastes were generated.

Environmental Investigations

In January 1987, Maryland Department of Health and Mental Hygiene's Hazardous and Solid Waste Management Administration (HSWMA) personnel sampled production wells and conducted a Controlled Hazardous Substance (CHS) generator inspection in response to a citizen's query as to whether ground water at JHAPL had ever been sampled. Results of the groundwater sampling revealed volatile organic compound (VOC) contamination. The wells were resampled in February and again in November 1987 with similar results.

In April 1988, Chester Engineers performed a soil gas survey as part of a Phase I investigation, which confirmed chlorinated organic solvent contamination near the landfill and B24/39 areas.

In 1989, Maryland Department of the Environment (MDE) personnel visited and inspected the site several times and found numerous CHS violations. As a result, Complaint and Order #C-0-90-037 was issued in August 1989. JHAPL was directed to excavate and remove an underground discharge pipe and a concrete pit and to submit a report of all of the hazardous wastes generated throughout the facility.

In November 1990, JHAPL and MDE entered into Consent Order CO-90-074 that directed JHAPL to provide further environmental assessment.

In May 1991, MDE completed a Preliminary Assessment to address the potential for hazardous waste release and exposure.

In December 1992, MDE completed a Focused Site Inspection. VOC contamination was detected in groundwater and surface water samples. Soil and sediment samples revealed various polyaromatic hydrocarbons (PAH) contamination in concentrations ranging from 40 parts per billion (ppb) to 360 ppb. No organic or PAH contamination attributable to the site was detected off-site.

In September 1994, MDE completed an Expanded Site Inspection. Groundwater, surface water, soil and sediment samples were collected and split with Chester Environmental, contractor for JHAPL. Groundwater sampling revealed VOC contamination in the shallow and deep aquifers on site and contamination from chromium beneath the B24/39 area. Surface water samples revealed VOC and lead contamination in the B24/39 area. Sediment samples revealed contamination from VOC, cadmium and PAHs near the B24/39 area and Aroclor-1254 at the landfill area. Augured soil samples revealed little contamination.

In September 1996, MDE approved a long term quarterly groundwater and surface water monitoring program to track VOC contamination at JHAPL. The quarterly sampling began in October 1996.

Current Status

In April 1999, MDE approved a modification reducing the number of wells being sampled under the program by eliminating the wells that have not revealed detectable amounts of VOC. In August 1999, MDE again modified the sampling program from quarterly to semi-annual due to the overall decreasing trend in VOC levels and eliminated surface water sampling since surface water sampling failed to detected contamination above benchmark levels.

Contact

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