



## Long-Term Stewardship Assessment Report

Former Appliance Park East

EPA ID #: MDD046279311

Columbia, MD 21046

Assessment Date: June 28, 2018

Report Date: July 31, 2018

**Introduction:** Long-term potential stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the Environmental Protection Agency (EPA) Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e. ECs and ICs) and to update the community on the status of Resource Conservation and Recovery Act (RCRA) Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

**Site Background:** The former Appliance Park East facility occupies approximately 1125-acres located at 9001 Snowden River Parkway Columbia, MD (Property). The former manufacturing facility was constructed in 1969 and 1970 on land purchased by the General Electric Company (GE) from Howard Research and Development (HRD). GE's operations at the Facility consisted primarily of the fabrication, finishing and final assembly of metal components in the manufacture of appliances. Fabrication involved metal cutting, pressing and welding. Finishing involved metal cleaning, electroplating, and the application of paint finishes.

Among wastes generated in the manufacturing operation was sludge from the treatment of electroplating wastewaters. The sludge was disposed in three on-site landfills until November 1982, after which time it was sent off-site for proper treatment and/or disposal at permitted facilities. In October 1987 the State of Maryland approved a final closure plan and issued a RCRA Post-Closure Permit [Controlled Hazardous Substance (CHS) Permit No. A-011] to GE for post-closure care of the three on-site landfills. The CHS Permit is still in effect and was most recently renewed on February 9, 2009, with an expiration date of February 8, 2019.

GE continued manufacturing operations at the Facility until June 1990, at which time all manufacturing equipment, above-grade storage containers and surface wastes were removed and/or decommissioned. On December 28, 1990, the decommissioned Facility, with the exception of the property containing the three closed landfills (approximately 18 acres) was sold to HRD.

Along Snowden River Parkway, the Property has been developed into a shopping plaza known as Snowden Square, and subdivided for sale to the various merchants. This area now includes retail stores (e.g., BJ's Wholesale Club, Marshall's, Staples), restaurants (e.g., Boston Market, Ruby Tuesday's, Bertucci's, Red Lobster), a gas station and a movie theater. The western and southwestern-most portions of the Facility have been re-developed into townhomes, condominiums, and office space.

The initial requirements for the corrective action process were specified in a RCRA permit issued by EPA to GE in February 1991 (MDD046279311). Numerous investigations and actions have been completed and various reports have been submitted to the EPA since 1991. As a result of past Facility-related operations, soil and groundwater is contaminated with volatile organic compounds (VOCs), principally trichloroethylene (TCE), at concentrations exceeding maximum contaminant levels (MCLs). VOCs are found in soil beneath the former manufacturing building and in groundwater beneath and downgradient of the building.

**Current Site Status:** On October 4, 2012 EPA issued the Final Decision and Response to Comments (FDRTC). The final remedy consists of groundwater monitoring, ICs and a remediation system which treats groundwater extracted on Parcels A10 and A40 to hydraulically control the migration of groundwater downgradient of the former Range Building. The other remediation system, which treated soil vapors extracted from two areas on Parcel A40 has been shut down and is currently being decommissioned. The final remedy detailed in the FDRTC is implemented through modified Corrective Action Permit no. MDD046279311 dated February 5, 2013 (Permit) and an environmental covenant between EPA and GE.

**Long-term Stewardship Site Visit:** On June 28, 2018, EPA conducted a long-term stewardship site visit with Maryland Department of the Environment (MDE), GE and their consultant to discuss and assess the status of the implemented remedies at the site.

The attendees were:

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**Institutional Controls (ICs) Status:**

***Permit:*** The modified Corrective Active Permit is the method for requiring operation of the groundwater extraction system, as a condition of the Statement of Basis and FDRTC. The following activity and use limitation applies to the entire Facility, shown on Figure 1:

*Facility-wide Groundwater Use Restriction:* Howard County's ordinance imposes a prohibition on groundwater use as a potable source for areas serviced by the municipality. The facility is connected to municipal water.

The following activity and use limitation applies to parcels A10, A40, A74, A8 and A15, shown on Figure 1:

*Land Use Restriction:* The Property shall not be used as "residential" property. Parcel A74, which includes the Facility's former Warehouse Building, is leased for warehousing. The former Boiler House is also located on Parcel A74, but is no longer used for steam production. The former Range Building on Parcel A40 has been re-developed into warehousing operations. Parcel A10 is located immediately south of Parcel A40. Parcel A10 is undeveloped except the remediation system owned and operated by GE as part of ongoing corrective measures for the former Range Building on Parcel A40. There were no residential structures or uses of the site observed at the time of the visit. GE is currently in compliance with land use restrictions.

The following activity and use limitation applies to parcels A10, A40, A8 and A15, shown on Figure 1:

*Soil Management Plan:* Subsurface soil excavation beneath the concrete floor of Unit 7 press pit or beneath the water table at parcels A10, A40 and portions of parcels A8 and A15 that overlap with the groundwater impacts associated with CMS Unit 4 is prohibited except in conformance with a soil management plan reviewed and approved in advance by EPA. There were no earth-moving activities observed at the time of the site visit.

#### **Engineering Controls (ECs) Status:**

*Groundwater Pump and Treat System:* A groundwater pump and treat system is being operated as a stabilization measure pursuant to the Permit. The system is located on Parcel A10, an undeveloped parcel of land immediately downgradient of the former Range Building. Groundwater is currently extracted from four recovery wells (B-1, B-2, B-4 and B-6). The groundwater is treated in a remediation compound on Parcel A10 by air stripping followed by carbon absorption. The treated water is discharged to a nearby storm sewer under National Pollutant Discharge Elimination System (NPDES) Permit MD0067938 issued by MDE, also known as State Discharge Permit 07-DP-3245. Performance monitoring, including hydraulic head measurements and semi-annual sampling, has shown that the plume is stable, and that the system is effectively containing the VOC-affected groundwater to Parcel A10 and that TCE levels are decreasing in certain wells.

*Groundwater Monitoring:* There are twenty-five (25) active groundwater monitoring wells sampled for performance monitoring purposes regarding the groundwater extraction system at parcel A10. Groundwater generally flows from northeast to southwest. Eleven (11) wells are sampled semi-annually, ten (10) wells are sampled annually and four (4) wells are sampled biennially analyzed for VOCs, primarily Trichloroethene (TCE).

During the latest sampling event in May 2018, TCE was detected in 17 of 23 monitoring wells sampled. Also, cis-1,2-dichloroethene (1,2-DCE) was detected in 16 of 23 wells sampled. Two wells (7TP-1 and 7TP-6) were not sampled due to an insufficient volume of water. The highest TCE concentrations were detected in wells 2TP-10 (72,700 ug/L), 2MW-8S (4,090 ug/L) and 2TP-11 (6,970 ug/L). TCE concentrations in other wells ranged from non-detect to 661 ug/L (at well 2TP-7). Performance monitoring, including hydraulic head measurements and sampling, has shown that the plume is stable, and that the groundwater treatment system is effectively containing the VOC-affected groundwater to Parcel A10 and that TCE levels are decreasing in certain wells.

**Financial Assurance:** GE has satisfied all financial assurance requirements and is currently in compliance.

**Reporting Requirements/Compliance:** Pursuant to the Permit, GE is required to submit semi-annual progress reports on the remedy performance by each January 31 and July 31 until remedial clean-up requirements have been met. There are no issues of noncompliance regarding reporting requirements as GE has submitted two (2) reports each year, the last of which was received July 3, 2018. No transfer of property, change in use of the property, or work that will affect contamination at the property has been reported.

**Mapping:** The EPA facility website map is accurate and includes the 1,125-acre former Appliance Park East facility. A downloadable geospatial PDF map is available on EPA's corrective action facility webpage under the "Reports, Documents and Photographs" section, found [here](#).

**Conclusions and Recommendations:** No EC/IC deficiencies were identified. EPA has determined that the remedy institutional and engineering controls have been fully implemented.

**Attachments:**

Figure 1: Aerial Map of Former Appliance Park East

Picture 1: Extraction Well Lines to Groundwater Treatment System

Picture 2: Parcel A10

Picture 3: Decommissioned Soil Vapor Extraction Well

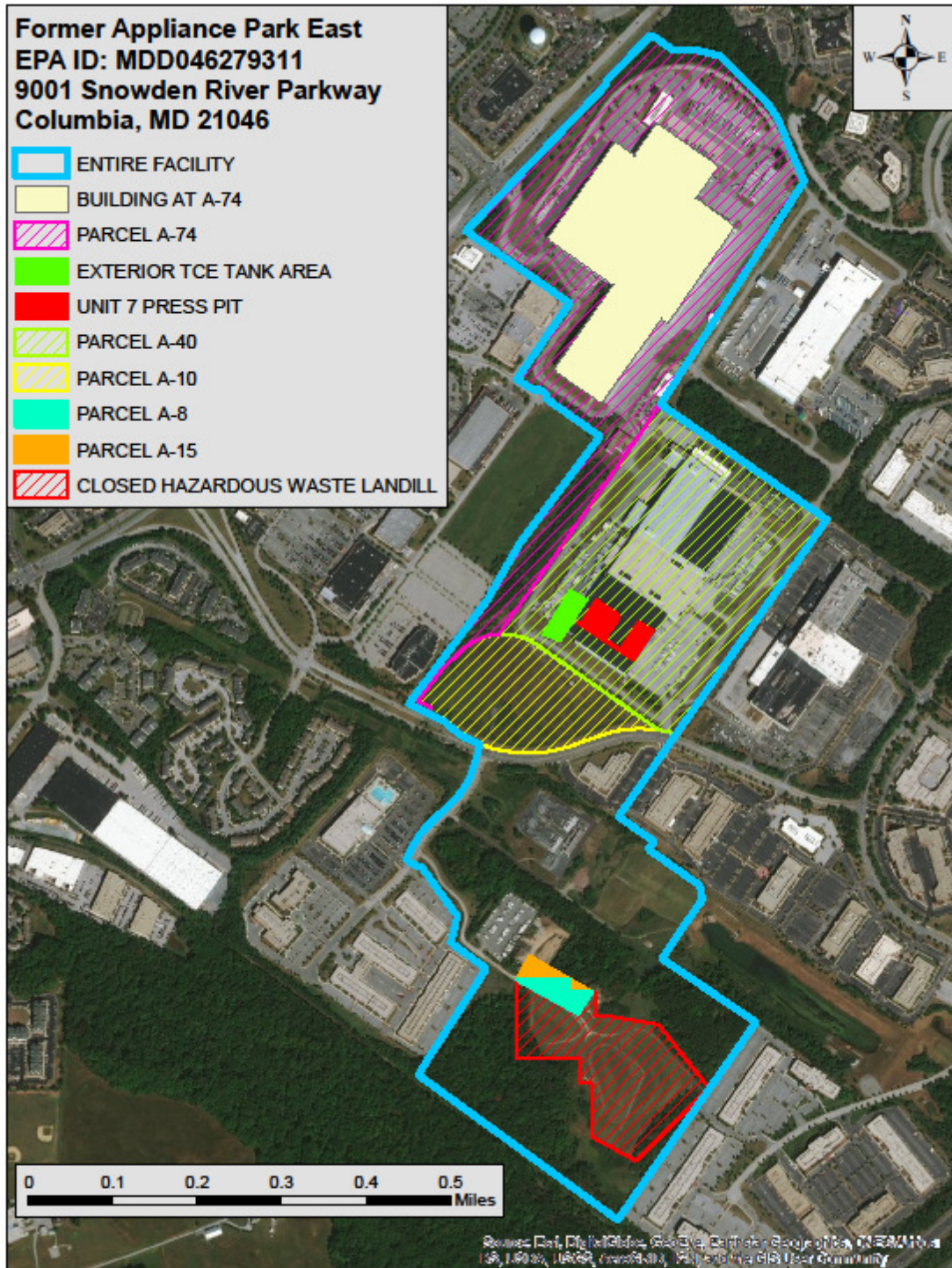
Picture 4: Monitoring Well 2MW-8S

Picture 5: Extraction Well B6

Picture 6: Unit 2 - Former Exterior Trichloroethene Tank Area

Picture 7: Unit 7 - Press Pit

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Picture 5: Extraction Well B6





Picture 6: Unit 2 - Former Exterior Trichloroethene Tank Area



Picture 7: Unit 7 - Press Pit

