Long-Term Stewardship Inspection Report
Former Pennsylvania Electricity Co. (PECO) Site
EPA ID#: PAD000731026
Chester, PA

Introduction

Long-term 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 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 the 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 term "Site" is defined as the original 90 acre site and "property" is defined as the respective areas of the Site that are owned by Exelon, the Buccini/Pollin Group (BPG), and the City of Chester. The former PECO (Exelon) Facility is a 90 acre site located along the Delaware waterfront in Chester, PA, approximately 20 miles south of Philadelphia. Since the 1800s, the majority of the Site was used by Exelon to generate electricity from a coal-fired plant. In addition, Exelon leased several parcels of the Site to various industrial facilities that are no longer operational. Exelon has since closed the coal-fired plant and sold the majority of the 90 acre site to a redeveloper and donated a parcel of open land to the City of Chester. Currently, a few acres of the Site are used by Exelon for the operation of the groundwater remediation and an electricity substation.

Of the 90 acres, the Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) Corrective Action Program investigated and remediated 17 acres that were leased and occupied by a former resin manufacturing plant and hazardous waste recycler. This portion of the Site was heavily contaminated and required extensive investigation and remediation. The remaining 73 acres, which were less contaminated and were prime for redevelopment, were addressed by the Pennsylvania Department of Environmental Protection (PADEP) under the Consent Order and Agreement with the Pennsylvania's Land Recycling and Environmental Remediation Standards Act ("Act 2"). The PADEP Act 2 program enabled Exelon to expeditiously address and remediate the less contaminated areas to facilitate the redevelopment of the Site.

The constituents of concern (COCs) within the 17 acres investigated by the EPA included BTEX (hydrocarbons: benzene, toluene, ethyl benzene, and xylene) and PAHs (poly aromatic hydrocarbons), LNAPLs (light non-aqueous phase liquids: hydrocarbons that float on water), SVOCs and some metals. Contaminated surface soils were excavated and disposed offsite. The excavated areas were backfilled, re-graded, and capped with topsoil and/or gravel. In addition, Exelon installed a shoreline remediation system that consisted of a groundwater extraction well system and a

groundwater collection trench along the Delaware River to recover free product and to prevent petroleum sheens from forming on the surface of the river. Several monitoring wells were installed to assess and evaluate the effectiveness of the remediation. Exelon continues to operate and maintain the groundwater remediation system.

Because the residences in the City of Chester are required to connect to public water and groundwater in the area is not used for potable purposes, in 2007, EPA developed site specific Alternative Concentration Limits (ACLs) for the COCs in groundwater that reflect the exposure risks at the Site and the protection of the Delaware River. The ACLs are based on eight consecutive quarters of steady levels for the COCs and are lower than the Target Criteria Concentrations, which represent the threshold concentrations for the COCs in groundwater that do not adversely impact the river.

Under the PADEP Act 2 Program that addressed the remaining 73 acres of the Site, Exelon excavated areas of contaminated soils and backfilled those areas with topsoil and/or gravel. Specific areas were lined with a geo-textile cap prior to backfilling. The remediation was completed to site-specific and background standards for nonresidential use. As stated in the PADEP Consent Order and Agreement, any future redevelopment that will change the nonresidential use of the property to residential use must meet the required cleanup standards for that specific land use.

Current Site Status

The former coal-fired power plant has since been redeveloped into a high-tech office building. The building has approximately 396,000 square feet of Class A office space. A new major league soccer stadium that is home to the Philadelphia Union Soccer team was constructed on the east side of the Site. In 2014, two new practice soccer fields were constructed adjacent to the stadium.

The BPG currently owns the vast majority of the 90 acre site. The City of Chester owns a small parcel of open land donated by Exelon. Exelon owns two small separate parcels of the original Site. The one parcel is used for the operation of the groundwater remediation system and maintenance of the shoreline riprap and the other is used as an electricity substation.

Long-term Stewardship Site Visit

On October 27, 2014, EPA conducted a long-term stewardship site visit with PADEP, Exelon and the BPG representatives to discuss and assess the status of the implemented remedies at the Site.

The attendees were:

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The remedies implemented at the Site include engineering controls and institutional controls. The status and specifics for the respective controls, and a summary of a variety of topics discussed during the meeting and field inspection are presented in the subsequent sections.

Engineering Controls (ECs)

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, subsurface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination.

Continual ECs implemented at the Site include groundwater monitoring and remediation, and the maintenance of the riprap along the Delaware River to prevent soil erosion. EPA determined that the implemented remedies continue to be effective in cleaning up the groundwater and controlling the discharge of COCs into the Delaware. No oil sheen formations have been observed in the Delaware River over the last three years. Exelon will continue to sample and monitor the groundwater to confirm that the extraction wells and the groundwater interceptor/collection trench (ICT) continue to be effective and that dissolved-phase contamination levels in the groundwater are stable and do not adversely impact the Delaware River. Exelon will routinely conduct visual inspections of the Delaware River to ensure that the groundwater remediation is preventing the formation of oil sheens in the river. Furthermore, Exelon will continue to submit progress reports to assess the effectiveness of the implemented remedies and to ensure to that the remedies continue to meet the requirements of protection of human health and the environment.

Institutional Controls (ICs)

Institutional controls (ICs) are administrative or legal instruments (e.g., deed restrictions/notices, easements, covenants, zoning) that impose restrictions on the use of contaminated property or resources. ICs are also used to identify the presence of ECs and LTS requirements.

ICs will restrict any future land use of the Site that would adversely affect the effectiveness of the remediation or compromise the protection of human health and environment. The groundwater beneath the Site shall not be used for any purpose other than to conduct the operation, maintenance, and monitoring activities required by EPA and/or PADEP, unless it is demonstrated to EPA and PADEP that such use will not pose a threat to human health or the environment, or adversely affect or interfere with the implemented remedies. The Site was remediated to Pennsylvania Act 2 site-specific standards for non-residential use. Any proposed changes in land use beyond the current designated non-residential use will require the approval of PADEP and must meet the required cleanup standards for the specific land use.

Currently, there are two separate ICs instruments for the respective owners. The PADEP Consent Order and Agreement governs land use restrictions and redevelopment for the vast majority of the Site owned by the BPG. The areas that are owned by Exelon and consist of two small parcels for the operation of the groundwater remediation and an electricity substation, are required under the EPA Facility Lead Agreement to register an environmental covenant in accordance to the Pennsylvania

Uniformed Environmental Covenant Act (UCEA) to enforce land and groundwater use restrictions. Exelon has not registered an environmental covenant. As discussed and agreed during the site visit, the BPG and Exelon will implement separate environmental covenants for the respective properties to enforce ICs and ECs at the Site. The environmental covenants will include the delineation of the areas of the Site owned by the respective property owners.

In the coming months the BPG and Exelon will submit the environmental covenants for the respective properties. The environmental covenant can be signed solely by PADEP or EPA or it can be signed by both agencies. The respective environmental covenants are expected to be finalized and registered with the Delaware County Recorder of Deeds in 2015.

Financial Assurance:

Exelon will continue to submit its annual financial assurance to EPA to ensure that there are sufficient funds to implement and maintain the remedies at the Site.

Field Inspections:

After the meeting, the attendees conducted a field inspection of the Site. The inspections focused on the implemented remedies and the newly constructed soccer practice fields. The areas of the field inspection included the groundwater remediation system, observations of some of the monitoring and extraction wells, the groundwater collection trench and the condition of the riprap along the shoreline. The implemented remedies are operational and continue to be effective in remediating and containing the COCs in groundwater. Observation of the some of the capped areas, which currently served as a parking lot, are intact and stable. The construction of the two soccer practice fields was underway and is expected to be completed in the coming weeks.

Community Contact

Prior to the site visit, EPA contacted Ms. Nicole Cogdell, the community liaison for the Mayor of Chester, to inform the City of Chester about the status of the implemented remedies and to invite representatives of the City to the site visit. The representatives of the City did not attend the meeting.

Subsequent to the site visit, EPA followed up with the City of Chester and contact councilman Al Jacobs and councilwoman Portia West via email. EPA updated the City on the operations of the environmental cleanup and stated that the remedies at the Site continue to meet the objectives of protection of human health and the environment. EPA also informed the City that Khai M. Dao is the point of contact at EPA and provided Mr. Dao's contact information if the City has any questions regarding the implemented remedies at the Site.

Follow-up Activities:

The BPG and Exelon will submit an environmental covenant for the respective properties to ensure that ICs and ECs implemented at the Site are enforced and continued to be effective of protection of human health and the environment. Exelon will continue to implement the groundwater monitoring and remediation. Exelon will routinely conduct visual observations along the Delaware River for oil sheen formation from the discharge of the groundwater contaminants into the river. If oil sheen

formation is observed, Exelon will implement the necessary corrective actions to prevent and eliminate any oil sheen formation in the river. Exelon will continue to submit its financial assurance and progress reports to assess the effectiveness of the implemented remedies and to ensure to that the remedies continue to meet the requirements of protection of human health and the environment.

Conclusion:

EPA concludes that the implemented remedies are effective in meeting the objectives of protection of human health and the environment. Exelon will continue to implement the remedies set forth in the Facility Lead Agreement between Exelon and EPA. To ensure that ICs and ECs are consistent and continued to be enforced at the Site, the BPG and Exelon will submit separate environmental covenants for the respective properties.