

**U.S. Environmental Protection Agency (EPA) – Region 1
RCRA Corrective Action Program**

**Statement of Basis for a
Corrective Action Completion Determination
For**

**Exelon New Boston, LLC
776 Summer Street, Boston, MA
EPA ID# MAR000010702 (former ID#MAD000845420)**

August 28, 2015

Based upon investigation and remediation activities conducted at the Exelon New Boston, LLC site ("site"), located at 776 Summer Street in Boston, Massachusetts, EPA is announcing its Completion Determination remedy proposal that Corrective Action obligations under the Hazardous and Solid Waste Amendments of the Resource Conservation and Recovery Act are "Complete with Controls."

Introduction

The U.S. Environmental Protection Agency – Region 1 (hereinafter, "EPA") is announcing its

Brief Site Description

The property has been utilized for electricity generation since the 1890s. Prior to the 1890s, the property was utilized for non-related commercial activities, including ship repair. The original generating station was built in circa 1892 and operated by the Boston Edison Company (BECo).

Completion Determination remedy proposal under the Hazardous and Solid Waste Amendments of the Resource Conservation and Recovery Act.¹ This proposal states that Corrective Action obligations at the Exelon New Boston LLC site (hereinafter "site"), located at 776 Summer Street in Boston, Massachusetts are "Complete with Controls." Investigation and remediation activities conducted at the site demonstrate that releases of hazardous wastes or hazardous constituents from Solid Waste Management Units or Areas of Concern do not pose a threat to human health or the environment under current and future land

use assumptions and that the proposed final controls are protective of human health and the environment.

¹ "Completion Determination" is a regulatory phrase that refers to a final disposition of a site subject to Corrective Action obligations under the Resource Conservation and Recovery Act. In this case, the Completion Determination proposed for the Site is one that is "Complete with Controls." More information on this category of Completion Determination can be found in the Federal Register notice entitled, Final Guidance on Completion of Corrective Action Activities at RCRA Facilities, 68 Fed. Reg. 8757 (Proposed Rule, February 25, 2003).

This document summarizes the results of various investigation and remediation activities and the reasons for proposing that a Completion with Controls Determination is appropriate. EPA is publishing this document to provide an opportunity for public review and comment on this proposal and will consider public comments as part of its decision making process. This document refers the reader to the administrative record, which contains more detailed information on site specific activities.

This Statement of Basis is intended to:

- Explain the opportunity for public participation, including how you may comment on this proposed determination and where the public can find more detailed information;
- Provide a brief description and history of the site;
- Present the principal findings of investigations and activities performed at this site; and
- Present EPA's rationale for proposing that Corrective Action obligations under the Hazardous and Solid Waste Amendments of the Resource Conservation and Recovery Act are Complete with Controls for the anticipated current and future land use of the site.

How Do You Participate

EPA solicits public review and comments prior to making a final decision on this proposed Completion Determination. All interested persons are invited to express their views on this proposal. This Statement of Basis provides only a summary of information about the site and additional information, a list of which appears at the end of this Statement of Basis, can be found in the Administrative Record at the following locations:

EPA Records Center, 5 Post Office Square, Boston, MA 02109-3912
(617) 918-1420
Monday-Friday, 9:00 A.M. to 5:00 P.M.

AND

South Boston Public Library, 646 East Broadway, South Boston, MA 02127
(617) 268-0180
Monday, 12:00 P.M. to 8:00 P.M.; Tuesday – Wednesday, 10:00 A.M. to 6:00 P.M.; Thursday,
12:00 P.M. – 8:00 P.M.; Friday – Saturday, 9:00 A.M. to 5:00 P.M.

The public comment period will begin on August 28, 2015 and end 31 days thereafter on September 28, 2015.

Internet Access: For convenience, this Statement of Basis may also be accessed at the EPA Exelon New Boston webpage:

<http://www.epa.gov/region1/cleanup/rcra/exelon>

Written comments on this proposal will be accepted throughout the comment period. If, after reviewing the information on the site, you would like to comment in writing or email on this proposal, or on any other issues related to this proposal, you should send your comments to the following addresses (postmarked no later than September 28, 2015) making sure to clearly indicate that you are commenting on this proposal:

Mr. Juan A. Pérez
USEPA Region 1
5 Post Office Square, Suite 100, OSRR07-3
Boston, MA 02109-3912
(617) 918-1354
perez.juan@epa.gov

At the end of the public comment period, EPA will review all comments received. EPA will provide a summary and response to all comments. The Response to Comments will be incorporated into the Administrative Record for the site. EPA can modify the proposed final remedy, or select another remedy based on technical or legal issues brought up by the community's comments. If the comments result in significant changes to this proposal, EPA will seek additional public comments on a revised proposal.

EPA/MassDEP Corrective Action Program Coordination and Implementation

EPA has authorized the MassDEP to implement the Corrective Action program in lieu of EPA at licensed hazardous waste Treatment, Storage and Disposal Facilities (TSDFs) in Massachusetts. EPA also approved the Massachusetts Contingency Plan (MCP) regulations to be used in implementing the Corrective Action program at these facilities. All non-TSDFs, hazardous waste generators and any other facility that releases hazardous materials to the environment in Massachusetts also use the MCP to assess and remediate releases of hazardous materials. Therefore, the assessment and remedial actions conducted pursuant to the MCP may also be determined to address both State and Federal requirements for Corrective Action at the Exelon New Boston Facility.

Exelon New Boston Facility Description and History

The Exelon New Boston Facility (the Facility) is an active electric power generating station. The geographic coordinates of the Facility are 42.339167 latitude and -71.035 longitude. The Facility is abutted to the north by the Boston Harbor Reserved Channel, to the west by Summer Street, to the south by East 1st Street, and to the east by an inlet of the Reserved Channel and a parcel belonging to the Massachusetts Bay Transportation Authority. A baseball field and a residential area are located to the south/southeast of the Facility, across East 1st Street. The Facility is situated on approximately 18.2 acres (property) and includes a generation building that houses a working turbine, former electrical generating equipment, a guard shack, a former waste treatment building, a large gravel-covered area (former wastewater surface impoundments, an

outdoor electrical switchyard, and an office building. Three above-ground bulk petroleum storage tanks were located in the northeasterly section of the Facility; the tanks were removed in October 2014. In December 2014, an approximate 5.99 acre portion of the property was sold to Massport for construction of the Thomas J. Butler Freight Corridor connecting Conley Terminal to Summer Street. The Facility is surrounded by a chain-link fence topped with barbed wire, and access to the Facility is controlled by a security guard. The Site locus map is shown in **Exhibit 1**. A Site Plan is shown as **Exhibit 2**.

The property has been utilized for electricity generation since the 1890s. Prior to the 1890s, the property was utilized for non-related commercial activities, including ship repair. The original generating station was built in circa 1892 and operated by the Boston Edison Company (BECO). Historically, electricity was generated using steam turbines powered by coal and/or No. 6 fuel oil boilers until the mid-1960s, at which time only No. 6 fuel oil was utilized to power two new horizontal turbine generators (Units 1 and 2) and a combustion jet turbine. In the mid-1980s the boilers were converted to run on natural gas, but with the capability to run on No. 6 fuel oil in emergency situations. In 1997, the Facility was purchased and operated by Sithe, LLC ("Sithe"). In 2003, the facility was purchased by Exelon. In 2014, an approximate 5.99 acre portion of the property was transferred to Massport for construction of the Thomas J. Butler Dedicated Freight Corridor (Freight Corridor Parcel); Exelon remains the current owner and operator of the rest of the property (Exelon property) comprising approximately 18.2 acres. Units 1 and 2 were retired in 2002 and 2007, respectively. Currently, the combustion jet turbine is operated to generate electricity during high demand periods.

Institutional controls are currently in place and maintained to limit access to the property and for security purposes thereby limiting potential exposure to impacted soil. The property is surrounded with an intact chain-link fence and entry to the property is controlled. A security guard is stationed at the site 24 hours per day, seven days per week, 365 days per year and the site is protected with surveillance cameras that operate 24 hours per day, seven days per week, 365 days per year. Site workers and visitors are required to undergo Exelon Safety Training prior to accessing the Site. The current potential for human exposure to impacted soil by trespassers and visitors is minimal. An engineered barrier has been constructed to control potential exposure to petroleum-impacted soil in the vicinity of the former Tank No. 3 and an Activity and Use Limitation (AUL) will be instituted in this area to limit potential exposure to impacted soil in the future.

Assessment activities have been conducted over a period of several decades. Additional information is provided relative to four areas: 1) Fuel Oil Tank No. 3; 2) Former Wastewater Treatment Impoundments and Former Accumulation Areas; 3) the Southwest Courtyard Area; and, 4) Releases of Unknown Location. Assessment activities and results are provided below relative to Groundwater, Indoor Air, Surface Soil, Surface Water, Subsurface Soil and Outdoor Air.

Drinking water is provided to the South Boston area, including the facility, by the Massachusetts Water Resources Authority (MWRA) and is sourced from the Quabbin Reservoir located in western Massachusetts. Based on discussions with the City of Boston, and review of the MassGIS map for the area, there are no known public or private drinking water supply wells or industrial water supply wells located within one mile of the facility. Therefore, exposure to contaminated groundwater at the facility is limited to potential environmental impacts associated with groundwater discharge to surface water (i.e., the Reserved Channel).

Supplemental evaluation of groundwater flow direction on a facility-wide basis was conducted in September 2011. The evaluation included the installation of monitoring wells, well elevation survey and gauging of total of eleven (11) existing and seven (7) newly installed wells. Groundwater flow direction, including the Southwest Courtyard Area was found to be to the north-northwest. The groundwater gradient was highest in the easterly portion of the facility where topography drops from the area of the former Wastewater Treatment Impoundments to the area around former aboveground oil storage Tanks No. 1 and No. 2. Minimal gradient was identified in vicinity of the former Tank No. 3.

Overview of Investigations and Remedial Work

There are nine (9) known historical releases that have occurred at the facility, all of which have been reported and addressed under Massachusetts General Laws 21E (Chapter 21E) and the accompanying regulations, 310 CMR40.0000 (the Massachusetts Contingency Plan or MCP). Ten additional releases were reported to have occurred between approximately 1974 and 1986; they are herein referred to as "Releases of Unknown Location".

In connection with six (6) of the nine (9) historic releases, a Class A or B Response Action Outcome (RAO) has been filed with MassDEP, indicating that a level of No Significant Risk exists or has been achieved at the Facility. That is, a Class A or B RAO means that each source of oil and/or hazardous material (OHM) which is resulting in or is likely to result in an increase in concentration of OHM to groundwater, is eliminated or controlled.

The following is a brief description of the investigations and remedial actions undertaken at the three (3) most significant releases at the site.

Tank No. 3

According to available records, historic releases of No. 6 Fuel Oil from Tank No. 3 at the facility (see attached Exhibit 2) have been reported and addressed under Massachusetts General Laws Chapter 21E (Chapter 21E) and accompanying regulations, 310 CMR 40.000 et seq. (the Massachusetts Contingency Plan or MCP) under the Release Tracking Number (RTN) 3-4519. While non-aqueous phase liquid (NAPL) was initially detected in groundwater monitoring wells in the past, (see GZA GeoEnvironmental, Inc. (GZA) Phase II- Comprehensive Site Assessment Report for Fuel Oil Tank No. 3, SITHE New Boston LLC dated August 9, 1999 and

GZA Periodic Evaluation of the Temporary Solution Fuel Oil Tank No. 3, 776 Summer Street, Boston, MA dated November 2004), quarterly gauging conducted since 2006 has not identified any NAPL in monitoring wells at the Facility, (see OHI Engineering, Inc. (OHI) Post Class C RAO Status Report, September 2010).

Groundwater analyses conducted by GZA did not identify dissolved petroleum constituents at concentrations at or above applicable groundwater standards under the MCP (see GZA Phase II –Comprehensive Site Assessment Report for Fuel Oil Tank No. 3, SITHE New Boston LLC dated August 9, 1999 and GZA Periodic Evaluation of the Temporary Solution Fuel Oil Tank No. 3, 776 Summer Street, Boston, MA dated November 2004). Accordingly, a Class C RAO was filed with MassDEP in connection with RTN 3-4519 in August 1999 (see GZA Class C Response Action Outcome Report for Fuel Oil Tank No. 3, SITHE New Boston LLC dated August 9, 1999). The Class C RAO indicates that a temporary solution has been achieved, ensuring the elimination of any substantial hazard and the identification, characterization and, to the extent feasible, elimination, control or mitigation of any source of OHM. The Class C RAO recommends no further action other than periodic monitoring (see GZA Class C Response Action Outcome Report for Fuel Oil Tank No. 3, SITHE New Boston LLC).

The GZA Periodic Evaluation of the Temporary Solution Fuel Oil Tank No. 3, 776 Summer Street, Boston, MA dated November 2004, provides groundwater sampling analytical data collected in 2002 and 2004. The samples were collected from four monitoring wells (GZ-1, GZ-2, GZ-3, and GZ-7) and analyzed for Extractable Petroleum Hydrocarbons (EPH). The analytical results did not indicate the presence of EPH in any of the samples. The Periodic Evaluation report also indicates that site conditions have not substantially changed since the initial RAO was submitted in 1999 and continues to recommend no further action other than periodic monitoring.

On December 11, 2007, Exelon New Boston, LLC, and its LSP, OHI Engineering, received a petition from ten (10) South Boston residents. The petition requested that Exelon New Boston, LLC's Tank No. 3 Release Site (RTN 3-4519) be designated as a Public Involvement Plan (PIP) Site under the MCP in accordance with 310 CMR 40.1404. On December 19, 2007, OHI submitted a reply to the petitioners confirming that the Tank No. 3 Release Site was eligible for, and was designated as, a PIP Site in accordance with the MCP. Interviews and meetings were held with the public during development of a Draft Public Involvement Plan. The Draft PIP was presented at a public meeting held at the South Boston Public Library and comments were received from the public. The Final PIP was prepared and submitted to the MassDEP on April 17, 2008 (see Final Public Involvement Plan Tank No. 3 Release Site, DEP RTN 3-4519 dated April 17, 2008 prepared by CLF Ventures and OHI Engineering). Since that time, semi-annual public meetings have been held at the Tynan Community Center in South Boston. The purpose of these meetings has been to update the public regarding the Tank No. 3 Release Site and the status of the Exelon New Boston Facility, in general.

In May 2008, a total of 10 soil samples were collected from 10 soil borings in various locations around the outside of Tank No. 3. Residual #6 fuel oil was discovered at various depths ranging from surface to 12 feet below surface grade (bsg). Analytical results indicated C₁₁-C₂₂ Aromatics hydrocarbons and C₁₉-C₃₆ Aliphatic hydrocarbons were detected above Upper Concentration Limits (UCLs) in the east-southeast portion of Tank No. 3. C₁₁-C₂₂ Aromatics hydrocarbons were detected at concentrations ranging between 48,800 – 69,500 mg/kg, which exceeded the MCP UCL soil standard of 10,000 mg/kg. C₁₉-C₃₆ aliphatic hydrocarbons were detected at concentrations between 20,000 – 39,100 mg/kg, which exceeded the MCP UCL soil standard of 20,000 mg/kg (see OHI Engineering, Inc. Post Class-C RAO Status Report, September 2008).

Groundwater sampling and laboratory analysis has been conducted annually in the area around Tank No.3 from 2008 to the present. Samples have been collected using EPA/MassDEP typical methods and submitted to an independent analytical laboratory for analysis of Extractable Petroleum Hydrocarbons (EPH). The EPH analysis tests for three specific carbon ranges: C₉-C₁₈ Aliphatic hydrocarbons, C₁₉-C₃₆ Aliphatic hydrocarbons and for C₁₁-C₂₂ Aromatic hydrocarbons. The MCP Method 1 GW-3 standards for these carbon ranges are 50,000 micrograms per liter (µg/l), 50,000 µg/l and 5,000 µg/l, respectively. C₁₁-C₂₂ Aromatics (petroleum hydrocarbons) were detected in one groundwater monitoring well, MW-105, located upgradient of Tank No. 3. Concentrations of these Aromatics were 8,400 ug/L, which exceeded the applicable (Method 1, GW-3) MCP groundwater standard of 5,000 ug/L (see OHI Engineering, Inc. Post Class-C RAO Status Report, March 2009).

Groundwater analytical data from sampling events in August 2009, August 2010, August 2011, August 2012, July 2013, and August 2014, did not identify EPH, including C₁₁-C₂₂ Aromatics, at or above the MCP Method 1 GW-3 standards in groundwater monitoring wells located upgradient and downgradient of Tank No. 3. Maximum concentrations detected between 2009 and 2011 for the C₉-C₁₈ aliphatic EPH carbon range was 1,800 µg/l, C₁₉-C₃₆ aliphatics was 5,900 µg/l, and C₁₁-C₂₂ aromatic was 4,400 µg/l; all of which are below the MCP Method 1 GW-3 standards. This data has been submitted to DEP in the Post Class C RAO Status Reports dated September 2009, September 2010 and September 2011 (see OHI Engineering, Inc. (OHI) Post Class C RAO Status Reports, March 2009, September 2009, September 2010, September 2011, September 2012, September 2013, and September 2014).

Post Class-C RAO Status reports have been submitted biannually by OHI since March 2006. In November 2009, a Final Periodic Evaluation of the Temporary Solution was prepared by OHI and submitted to Mass DEP. The Periodic Evaluation of the Temporary Solution indicated that site conditions have not substantially changed since the initial RAO was submitted in 1999 and recommend no further action other than periodic groundwater gauging and annual groundwater sampling and analysis. A Draft Periodic Evaluation of the Temporary Solution was discussed at a Public Meeting in October 2009 and comments were received and addressed. The most recent status report dated September 2014 confirmed that no NAPL has been detected in the on-Site monitoring wells since OHI commenced periodic gauging in April 2006. The

report summarizes the completion of 12 soil borings on July 29, 2014, on the south side of the Tank No. 3 release Site. The purpose of the soil borings was to assess soil conditions within the portion of the Exelon Property that was transferred to Massport for construction of the Thomas J. Butler Freight Corridor. A total of 23 soil samples were collected from the soil borings and analyzed for EPH with target analytes. EPH carbon fractions and PAHs were not detected at concentrations in excess of the Method 1 S-3 soil standards (see OHI Engineering, Inc. Post Class-C RAO Status Report, September 2014).

Groundwater is at a depth of approximately 9.5 to 10 feet below surface grade and subsurface utilities are present at shallower depths above the water table surface. As indicated in the GZA Phase II Report, there are no known public or private drinking water wells at or within 500 feet of the site. Based on site activities and uses it is unlikely that an exposure pathway will result from groundwater contamination (see GZA Phase II –Comprehensive Site Assessment Report for Fuel Oil Tank No. 3, SITHE New Boston LLC).

The absence of NAPL and the presence of dissolved petroleum constituents below applicable MCP standards at downgradient locations indicate that groundwater in vicinity of Tank No. 3 is not known or reasonably suspected to be impacted above appropriately protective risk-based levels.

The change in site conditions resulting from the construction of the Thomas J. Butler Freight Corridor necessitated the re-evaluation of the feasibility of achieving a Permanent Solution. In order to conduct the evaluation, an update of the Phase II Assessment was conducted. In order to provide clear communication to the PIP parties, Exelon elected to provide a Phase II Update Scope of Work (SOW) for public comment. Notification of a 20-day comment period was made to the PIP list on September 3, 2014. The Draft Phase II Scope of Work was provided to the Repository at South Boston Public Library and submitted electronically to MassDEP. The Draft Phase II Update Scope of Work was discussed at the City Point Neighborhood Association meeting held on September 9, 2014. No comments were received during the public comment period. The Final Phase II Update Scope of Work was submitted to MassDEP on October 9, 2014. The updated SOW proposed the dismantling of Tank No. 3 and its surrounding dike wall, installation of 45 soil borings and the collection of soil samples to delineate soil quality within the release area. Tanks No. 1, No. 2 and No. 3 were dismantled and removed from the Property in 2014.

On February 20, 2015, OHI submitted a compiled report that included the Phase II Comprehensive Site Assessment (CSA), Phase III Remedial Action Plan (RAP) Update, and Phase IV Remedy Implementation Plan (RIP). Under the Phase II CSA, a total of 45 soil borings and two monitoring wells were installed in 2014 within the former footprint of Tank No. 3. Twelve of the borings were conducted in July 2014 and the remaining borings were conducted in October 2014 after Tank No. 3 was dismantled. Two soil samples were collected from each boring, an upper sample from zero to four feet and a lower sample from below four feet, typically near the groundwater table or in locations of visible petroleum impacts. Analytical

results were utilized to delineate the remediation area. Eleven composite samples were also collected during boring installation to be analyzed for off-site disposal characterization.

Groundwater was gauged and samples were collected from monitoring wells, MW- Tank1 and MW-Tank2, located within the former footprint of Tank No. 3, in December 2014. NAPL was not detected in the monitoring wells. Samples were analyzed for EPH with target analytes. EPH carbon fractions and PAHs were not detected at concentrations in excess of the Method 1 GW-3 groundwater standards (see OHI Engineering, Inc. Phase II Comprehensive Site Assessment Update (Part A)).

The Phase III RAP Update and Phase IV RIP submitted by OHI in February 2015 stated the remedial activities for Tank No.3 in order to achieve a Permanent Solution for the release area. Remedial goals included maintaining a condition of No Substantial Hazard at the Site during remediation, excavating and disposing of petroleum-impacted soil from grade to four feet below surface grade to an off-Site facility, and the construction of an engineered barrier over impacted soil exceeding UCLs at more than four feet below grade. The engineered barrier is shown on Exhibit 3 (see OHI Engineering, Inc. Phase III Remedial Action Plan Update (Part B) and Phase IV Remedy Implementation Plan (Part C)).

Remediation at Tank No. 3 was conducted in spring of 2015 in accordance with documents filed with the MassDEP. Remediation included excavation and off-site disposal of 4,500 tons of petroleum-impacted soil at and around Tank No. 3 and construction of a cast-in-place concrete engineered barrier. The barrier precludes access by ecological receptors to petroleum-impacted soils remaining in place. A deed restriction, known as an Activity and Use Limitation (AUL) will be placed on the Tank No. 3 release area as part of the final closure of the MassDEP-regulated release. Implementation of the AUL is expected to occur by the third quarter of 2016 (see OHI Engineering, Inc. Phase IV Status Report, August 2015).

Groundwater gauging, sampling, and laboratory analysis were performed on Site monitoring wells after the dismantling of Tank No. 3 in November 2014, prior to remediation activities, and in July 2015, after remediation activities. No NAPL was detected in the monitoring wells and groundwater samples were collected and analyzed for EPH. No EPH were detected at concentrations in excess of the Method 1 GW-3 groundwater standards (see OHI Engineering, Inc. Phase IV Status Report, August 2015).

Former Wastewater Treatment Impoundments and Former Accumulation Areas

According to Exelon's staff, the former wastewater treatment impoundments had been constructed in 1980 and the equalization tanks were constructed in the late 1980s/early 1990s. It is their understanding from their review of historic drawings and through discussions with past engineering consultants that the wastewater treatment impoundments and tanks were constructed in the same location as the former bottom and fly ash, metal hydroxide sludge, and coal ash accumulation areas.

The wastewater treatment impoundments were closed commencing in 1989 (see E.C. Jordan, Clean Closure – Soils, 1990). Closure of the impoundments included 74 soil samples, installation of 8 groundwater monitoring wells (wells OW-101 through OW-108), groundwater sampling and analysis, removal of impacted/stained soil beneath the liners of the impoundments, and submittal of closure documents to the MassDEP; (see E.C. Jordan, Clean Closure – Soils, 1990). On December 17, 1991, the MassDEP approved the clean closure of the impoundments for both soils and groundwater.

Groundwater monitoring studies were conducted in the easterly portion of the property (and approximate location of the referenced accumulation areas) and in downgradient areas (see Addendum No. 1 to Groundwater Closure Performance Report, ABB, 1997). As noted above, the referenced report was submitted to the MassDEP as part of Clean Closure of the impoundments. Further, groundwater samples obtained from three monitoring wells installed by GZA to evaluate conditions at the #2 fuel oil storage tanks downgradient of the former coal ash accumulation area, were analyzed for PAHs (see Response Action Outcome Report RTN 3-17596, GZA, 2000). No PAHs were detected in groundwater at concentrations above the method detection limit. GZA also collected groundwater samples in the vicinity of Tank No. 3 (AOC 7), which is also downgradient of the former accumulation areas. A total of nine groundwater samples were analyzed for PAHs, which were not detected in any of the samples above the method detection limit (see Phase II Comprehensive Site Assessment Report for Fuel Oil Tank No. 3, GZA, 1999).

According to Exelon's personnel familiar with the operational history of the waste water treatment (WWT) system, no significant operational issues or non-conformances regarding discharges from the system to the environment took place. The wastewater treatment system was decommissioned in 2007. During decommissioning of the treatment system, all tanks, pits and piping were drained, liquids and sediments were removed and disposed of off-site, and all components were pressure washed.

Given the operational history and closure process, it is unlikely that any significant contamination related to the former accumulation areas and WWT would have gone unidentified or unaddressed. In view of this, OHI has determined that groundwater in vicinity of the Former WWT Impoundments and Former Accumulation Areas is not known or reasonably suspected to be contaminated above appropriately protective risk-based levels.

Southwest Courtyard Area

This area previously contained #6 fuel oil tanks and a sulfuric acid tank. Previous releases of #6 fuel oil and sulfuric acid were reported, assessed, remediated and closed under the MCP. A release of #6 fuel oil was identified during response actions taken regarding a release of sulfuric acid. Monitoring wells were installed by RAM Environmental and by GZA, Inc. (see Final Phase

I Initial Site Investigation Report RTN 3-13007, RAM Environmental, 1996 and the Phase II Comprehensive Site Assessment, RTN 3-13007, GZA, 1998).

The GZA Phase II Comprehensive Site Assessment (Phase II Report) references groundwater elevations measured in wells in the southwest courtyard as indicating groundwater flow direction to be toward the south. The Phase II Report also indicates that regional groundwater flow direction is towards the north and the Reserved Channel and that the groundwater in the area may be tidally influenced as well as influenced by building structures/foundations.

Examination of the groundwater elevations provided in the Phase II Report indicates that the flow direction is predominantly to the north/northwest towards the Reserved Channel. This flow direction is contraindicated only by the groundwater elevation in monitoring well MW-3. It should be noted that MW-3 is located at the southerly end of the release area and is located closer to the building than the other monitoring wells.

Petroleum concentrations attenuate in wells from the south (GZA-3) to the north (MW-1, GZA-2 and MW-3), further indicating that groundwater flows to the north towards the Reserved Channel. Petroleum concentrations in the northerly wells (MW-1, MW-3 and GZA-1) are well below the MCP Method 1 GW-3 standards. Given that the site is approximately 800 feet from the Reserved Channel, groundwater concentrations would be expected to attenuate by an approximate 10-fold factor (see Table 4.4, MassDEP Policy #WSC-02-411) between the release area and the Reserved Channel. The calculated dilution factor further supports a finding that migration of contaminated groundwater is under control.

Furthermore, Exelon received a letter entitled "Notice of Audit Findings AUL Audit Inspection and Technical/Compliance Screening Audits" from the MassDEP dated August 4, 2010 stating the following:

"Based on the technical screening audit of the RAO, MassDEP is not directing you to undertake further response actions at this time in regard to the RAO."

Therefore, OHI concluded that this area has been properly assessed and addressed and meets all applicable standards under M.G.L. Chapter 21E and the MCP such that it poses no significant risk to human health or the environment. Groundwater flow direction is predominantly to the north/northwest towards the Reserved Channel (as expected based on regional groundwater flow characteristics). Further, #6 oil has limited solubility and mobility in the environment, and concentrations would be significantly diluted between the release area and the Reserved Channel.

Given these factors, OHI concludes that groundwater in vicinity of the Southwest Courtyard Area is not known or reasonably suspected to be contaminated above appropriately protective risk-based levels.

Institutional controls consisting of an Activity and Use Limitation (AUL) filed at the Suffolk County Registry of Deeds have been placed on the Southwest Courtyard area to control potential human exposure to subsurface soil. The AUL extends over an area of approximately 5,670 square feet. Within the AUL area, the following restrictions apply:

- ⊙ The area may not be used as a residence, children's school, outdoor playground, outdoor children's recreation area or other such use where a child may come into direct contact with soil;
- ⊙ Activities and/or uses which involved the removal of existing soil, gravel or pavement cover of building foundation from the AUL area and/or disturbance of contaminated soil or groundwater without the prior development of a Soil Management Plan by an LSP, and for longer-term project in excess of six months, the prior development and implementation of a Health and Safety Plan.

Access to potentially impacted subsurface soil at the Facility is restricted by buildings, pavements and other surface structures, which act as physical barriers to exposure to potentially impacted subsurface soils and by deed restriction in the Southwest Courtyard area. Any construction activities that may take place at the facility that could include exposure to potentially impacted subsurface soil have been and will continue to be conducted in accordance with health and safety standards put in place by Exelon New Boston LLC. These standards include Exelon Safety Training and a Soils Management Plan for excavation activities, which limits potential exposure of construction workers to impacted soils (see OHI Soil Management Plan dated October 15, 2008).

Releases from Unknown Locations

A total of 10 releases from unknown locations have been identified at the Facility, nine of which involved either #2 oil or #6 oil (see Draft RCRA Facility Assessment, Mabbett and Associates, Inc. 2009). The remaining release involved approximately 600 gallons of magnesium. Fuel oil storage has occurred in three areas on the property: the #6 oil bulk storage tanks in the northeasterly corner, the #2 fuel oil tanks in the north central portion of the property, and the former USTs in the southwestern portion of the property. The most likely locations for the fuel oil releases are in these areas of the property, all of which have been assessed. Magnesium storage occurred in the Southwest Courtyard area.

As part of the facility's efforts to identify, assess and address environmental issues stemming from unknown location releases, monitoring wells and soil borings installed on the property have evaluated soil and groundwater quality throughout the facility over the last 28 years. The soil borings and wells were predominantly installed in areas of intensive industrial activities including the easterly portion of the property, the Southwest Courtyard area, and in the vicinity of the existing #6 fuel oil bulk storage tanks. Assessment and response actions have also been

taken in the vicinity of the #2 fuel oil storage tanks servicing the “L Street Jet” and at former transformers.

In every case, with the exception of Tank No. 3, the assessment and response actions taken have resulted in regulatory closure. In only one case have response actions taken for a release identified a previously unknown release and that release was subsequently assessed and closed under the MCP.

All investigations and remedial actions at the site have been conducted in accordance with the MCP and/or the Massachusetts Solid Waste Regulations (310 CMR 19.000), as applicable, with appropriate reports being submitted to Massachusetts Department of Environmental Protection (MassDEP) and Boston Board of Health. All remedial actions have been completed to date and are considered “closed” under the MCP with a final remedy with the exception of Tank No. 3. The final remedy has been completed at Tank No. 3 and the release is expected to be “closed” in the third quarter of 2016. Currently, there are no active investigations or remediation work underway or planned at the site. Further details regarding each of the releases and response actions may be accessed at (search keyword “776 Summer Street”):

<http://public.dep.MA.ma.us/SearchableSites2/Search.aspx>

Therefore, we conclude that groundwater and soil are not known or reasonably suspected to be contaminated from Releases of Unknown Location above appropriately protective risk-based levels.

Ecological Evaluation

As part of the assessment and remediation at Tank 3 (RTN 3-4519) an ecological characterization concluded the following:

1. On July 30, 2015, Applied Ecological Sciences (AES) conducted a habitat evaluation focusing on the former site of Tank No. 3, located in the northeastern portion of the property. The concrete engineered barrier covering the Tank No. 3 location and its associated sand/gravel swale dominates the northeastern portion of the property. The tank location is devoid of vegetation with the exception of grass growing in the swale. A small patch of herbaceous and woody vegetation occupies the area between the former tank location and the Reserved Channel bulkhead; the woody vegetation comprises not more 10% of the land area around Tank No. 3. A moderately dense canopy of black locust (*Robinia pseudo-acacia*) and winged sumac (*Rhus copallina*) dominates vegetation within the wooded upland. The shrub layer is comprised of saplings from the canopy and scattered individuals of glossy buckthorn (*Rhamnus frangula*). Ground cover species include seedlings from the canopy and shrub layers, common ragweed (*Ambrosia artemisiifolia*), Canada hawkweed (*Hieracium canadense*), and various grasses (Family Poaceae spp.). The vegetated area revealed limited plant species diversity. There was no evidence of wildlife utilizing the evaluation site for

nesting, cover, or food. Ecological conditions, including species diversity and abundance, indicate that the Reserved Channel is functioning as would be expected in the absence of any contamination. There is no visible evidence of biologically significant harm.

2. Remediation included excavation and off-Site disposal of 4,500 tons of petroleum-impacted soil at and around Tank No. 3 and construction of a cast-in-place concrete engineered barrier. The barrier precludes access by ecological receptors to petroleum-impacted soils remaining in place.
3. Recent groundwater analytical data from sampling events in November 2014, December 2014, and July 2015 were completed after the dismantling of Tank No 3. Analytical results did not identify EPH concentrations at or above the MCP Method 1 GW-3 groundwater standards. Groundwater sampling will be performed for three additional quarterly periods to monitor potential groundwater migration.

Ecological Receptor Exposure Pathway

Applied Ecological Sciences (AES) conducted a habitat evaluation of the former Tank No.3 site on July 30, 2015. The vegetated area revealed limited plant species diversity. There was no evidence of wildlife utilizing the evaluation site for nesting, cover, or food. According to the MassDEP GIS map, the Site is not located within 500-feet of any freshwater or saltwater wetlands, vernal pools, or estimated rare wetland wildlife habitats. The Reserved Channel, open water, is located north within 500-feet of the Site. The MassDEP GIS map is shown in Exhibit 4.

An Ecological Receptor Exposure Pathway Scoping Checklist (Eco Checklist) was completed by OHI and it concluded that there was no evidence of harm to the environment at the site. EPA concurs with the conclusion that exposure to site-related constituents at the Exelon New Boston does not appear to pose a potential for significant ecological risk in surface water or sediments in surrounding surface water bodies. Therefore, ecological exposure to contaminants at or from the site is not reasonably expected and further ecological risk assessment does not appear necessary.

Rationale for Completion Determination

Based upon the comprehensive investigations, remedial actions, recorded AULs, and the site as described above, a Condition of No Significant Risk under the MCP exists under current and future use related to human health, safety, and public welfare at site.

EPA reviewed and concurred with the findings of comprehensive investigations performed at the site as part of the Corrective Action process, such as human health and environmental risk

characterizations, Environmental Indicators Determinations, RCRA Facility Assessments and others, as required by MassDEP and EPA (found in the administrative record).

As is described above, EPA believes that a Corrective Action "Complete with Controls" Completion Determination is appropriate for the following reasons:

1. Corrective measures have been implemented or completed

The site has undergone a comprehensive investigation and evaluation of the contamination identified at the site. Exelon New Boston has completed a number of remedial measures to address the contamination identified. EPA believes that human health and environmental risks associated with this site have been adequately addressed. With the consideration of the ongoing controls provided herein, completion of the concrete engineered barrier, quarterly groundwater monitoring, AULs, and continued maintenance of the AULs under the MassDEP Waste Site Cleanup Program as outlined previously, EPA believes that appropriate corrective measures have been defined, evaluated, and implemented or completed.

2. The Exelon New Boston site has completed construction and installation of all required remedial actions

Numerous remedial actions have been completed at the site to address releases of oil and oil ash to the environment. The remedial actions conducted have both reduced the mass of contamination in the environment and capped residual contaminants. In addition to eliminating exposure to contamination, the remedial actions are preventing inter-media transfer and migration of residual contaminants. The success of these remedial actions is documented in regulatory closure documents submitted to the MassDEP. The remedial actions completed at the site were described in the sections describing each of the MCP Disposal Sites.

3. Site-specific media cleanup goals have been met

Exelon New Boston has met the cleanup objectives for all areas of the site. Excavation and removal of petroleum-impacted soil around Tank 3 met MCP's Method 1 S-3 soil standard.

For the areas where contamination remains, the site has implemented or will implement AULs that EPA and MassDEP have determined are protective of human health and the environment.

Notwithstanding this Completion Determination, EPA or MassDEP may conclude additional cleanup is needed if, subsequent to this Completion Determination, EPA or MassDEP discovers evidence of unreported or misrepresented releases.

Evaluation of Remedy with respect to Standards and Decision Factors

EPA believes that, in addition to the rationale presented above, evaluation of the Exelon New Boston site with respect to Remedy Selection Criteria set forth in available EPA guidance provides a framework for measuring the effectiveness of a proposed remedy. These Remedy Selection Criteria are presented below:

Threshold Criteria:

Overall Protection. The investigation and remedial work conducted by Exelon New Boston as described in this proposed Completion Determination provides protection of human health and the environment for current and future use consistent with the requirements of the MCP. In addition, existing and future AULs will provide further protection by restricting use of the areas.

Attainment of Media Cleanup Standards. A condition of no significant risk has been reached and that this condition will remain protective as a result of remedial actions, controls and structures that exist throughout the site. The remedial actions met the clean-up standards are based on MCP's Method 1 GW-3 (groundwater) and Method 1 S-3 (soil) standards.

Controlling Sources of Releases. The available information demonstrates that the historical on-site releases of hazardous materials to various media have been completely remediated in some source areas or controlled by engineering or institutional controls in others. These controls are appropriate for current and future land use scenarios.

Compliance with Waste Management Standards. The proposed remedy complies with all applicable requirements for the management of solid wastes.

Balancing Criteria:

Long-term Reliability and Effectiveness. This remedy is effective and reliable with respect to the long-term since all remediation activities have been completed and appropriate controls are in place which will be monitored regularly. These controls would need to be reevaluated in order to change the designated future use of the site. Therefore, this proposed Completion Determination provides for long-term reliability and effectiveness.

Reduction of Toxicity, Mobility, or Volume of Wastes. The toxicity, mobility and volume of contamination impacting the environment as a result of site operations has been reduced through active remediation to the applicable MCP Method 1 GW-3 and Method 1 S-3 standards for the current and future use of the site.

Short-term Effectiveness. The proposed remedy is comprehensive in the short-term since there are no immediate risks to human health or the environment based on the MCP requirements.

Implementability. This remedy is believed to be easily implemented since no further construction operations are required to protect human health and the environment. An additional AUL will be added once the groundwater monitoring associated with Tank 3 remedial work is complete.

Cost. The Exelon New Boston site has spent significant time and money to investigate and remediate the site and has demonstrated compliance with the MCP and the MassDEP Solid Waste Program. Cost is not a factor in implementing this proposed remedy.

Conclusion

EPA has determined that this proposed Completion Determination with Controls demonstrates protection of human health and the environment based on currently available information. Specifically, the proposed final remedy is comprehensive in the short-term because there are no immediate risks to human health or the environment. In the long-term, EPA has determined that the majority of historical on-site releases of hazardous substances to the various media have been remediated to levels that are protective under the MCP, agreed to by EPA and that protections for controlling any remaining risks, including AULs, have been or will be implemented as described herein. In addition, the toxicity, mobility, and volume of contaminants impacting the environment have been sufficiently reduced. The AULs will identify which areas of the property would need to be re-evaluated and possibly remediated in order to be protective of human health and the environment if any new or different use of the site were proposed.

Accordingly, EPA, using all available information, is announcing its Corrective Action "Completion with Controls" Determination proposal for the site. Specifically, investigations performed at the site demonstrate that remaining contaminant levels are declining and do not pose a threat to human health or the environment based on the current use of the site. Areas of the site have either attained the Method 1 S-3 or GW-3 standards under the MCP and where the applicable standards have not been attained, monitoring or protective controls will continue. The site is currently used for industrial/commercial purposes and will remain so for the foreseeable future.

GLOSSARY

Activity and Use Limitation (AULs) – Easement granted to the Commissioner of the MassDEP by the property owner and is recorded and/or registered with the appropriate registry of deeds and/or land registration office. The purpose of an AUL is to minimize the risk of human exposure to pollutants

and hazards to the environment by preventing specific uses or activities at a property. It is also used to provide notice of the existence of residual contamination to future holders of an interest in a piece of property. An AUL is a tool which permits the remedial goals for a property to be dependent on the exposure risk associated with its use.

Administrative Record – Collection of documents (reports, correspondence, etc.) that form the basis for the remedy selection.

Disposal Site – Under the MCP, the term "disposal site" is used to refer to a place or area where an uncontrolled release of oil and/or hazardous material from or at a site or vessel has come to be located.

Institutional Controls - Non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Media Protection Standards (MPS) – Screening values used during the CMS to evaluate the potential effectiveness of a technology or alternative to address site conditions. In this case, the standards are under the MCP.

MassDEP – Massachusetts Department of Environmental Protection

Massachusetts Contingency Plan (MCP) – MassDEP regulations governing the requirements for remediation of contaminated sites.

Public Involvement Plan Site – A disposal site for which additional public involvement activities are required beyond those required for every disposal site and which has been designated as a PIP site pursuant to 310 CMR 40.1404

Release Tracking Number (RTN) – The file number assigned by Mass DEP to a release or threat of a release reported in accordance with 310 CMR 40.0300

Remedial Action Plan – A document prepared in accordance with 310 CMR 40.0861 to justify the selection of a remedial action.

Remedy Implementation Plan - A document prepared in accordance with 310 CMR 40.0874 for implementation of a remedial action.

Resource Conservation and Recovery Act (RCRA) – This law regulates the management and disposal of hazardous wastes. RCRA, in Section 3008(h), also authorizes the federal government to respond directly to releases of hazardous waste which may be a threat, or potential threat, to public health or the environment.

Response Action Outcome – The classification applied to a disposal site at which there is no significant risk, as defined by 310 CMR 40.1000.

Risk Assessment – Formal process to evaluate the hazards presented by environmental conditions at the site.

Statement of Basis (SB) – Document presenting the proposed remedy for Exelon New Boston to the public. The Statement of Basis provides a brief summary of the Exelon New Boston conditions, potential risks, and alternatives studied in the detailed analysis phase of the CMS.

Upper Concentration Limits (UCLs) – A concentration of oil and/or hazardous material which if exceeded indicates the potential for significant risk of harm to public welfare and the environment under future conditions according to 310 CMR 40.0996(6).

REFERENCES

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©Exelon New Boston Ecological Receptor Exposure Pathway Scoping Checklist August 2015

FIGURES

- Exhibit 1 – Locus Map
- Exhibit 2 – Site Plan
- Exhibit 3 – Engineered Barrier As-Built
- Exhibit 4 – MassGIS Map