AMENDED PROPOSED PLAN OF REMEDIAL ACTION

Former Holly Oak Substation
Wilmington, Delaware
DNREC Project No. DE-1200

February 2015

Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Timothy Ratsep, Environmental Program Administrator
Site Investigation & Restoration Section

02/19/2015
Date

What is the Proposed Plan of Remedial Action?

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Site for public comment. A legal notice is published in the newspaper for a 20-day comment period. DNREC considers and addresses all public comments received and publish a Final Plan of Remedial Action (Final Plan) for the Site.

Why us the Proposed Plan being Amended?

When new information regarding the release of contamination is identified at a Site after the Proposed Plan or Final Plan has been issued, an Amended Proposed Plan must be issued to once again solicit public comment. DNREC uses a comprehensive assessment process, which includes the additional data or information, to develop the new proposal for remedial action at the Site. The Plan is being amended after a re-evaluation of the data indicated that the Site soil and groundwater met DNREC Screening Level Table standard and is suitable for residential use.

What is the Former Holly Oak Substation Site?

The Former Holly Oak Substation site (Site) is located at the northeast corner of Delaware Avenue and Governor Printz Boulevard in the Holly Oak section south of Claymont, New Castle County Delaware. The Site consists of one tax parcel (06-116.00-132), totaling approximately 0.38-acre (Figure 1). The Site consists of a fenced lot with an open parking area. The Site is zoned residential. Residences are located to the north and east of the Site (Figure 2).

What happened at the Former Holly Oak Substation Site?

The Site was used as a substation to generate electricity from 1937 to approximately 1990. As part of the operations, petroleum underground storage tanks (USTs) were used to generate electricity. The petroleum contains poly-nuclear hydrocarbon (PAHs). The Site also operated transformers filled with poly-chlorinated biphenyl (PCB) oil. A PAH and PCB release occurred likely as a result of historic operations, which impacted the soil beneath the Site. In 1999, the Site owner brought 1.5 to 4 feet of fill to raise the Site grade. The surface soil contained aluminum, iron, manganese, and vanadium above the 2003 DNREC standards. Dieldrin was detected in one monitoring well on the Site above DNREC groundwater standards.

Why is an Amended Proposed Plan of Remedial Action necessary for the Former Holly Oak Substation Site?

A Final Plan of Remedial Action (Final Plan) for the Site was advertised on December 31, 2004. The Final Plan remedy included: deed restriction restricting the property use to commercial,

restricting use of the groundwater and placement of a groundwater management zone (GMZ). A GMZ was completed in March 2005.

As stated above, the remedy included restricting the Site use to commercial. However, the Site was zoned Substation and after the substation was sold, the zoning reverted back to residential. After discussions between New Castle County and the owner, the owner determined that the Site needed to meet residential use.

DNREC reviewed the available data to see if the Site is suitable for residential use. The metals that previously exceeded risk were aluminum, iron, manganese, and vanadium. DNREC compared the Site maximum soil data for these metals to the DNREC-SIRS Screening Level Table. The screening table includes revised metals concentrations that were obtained during a statewide metals study conducted in 2012. Only metal concentrations above these levels would be considered a release and require remediation. None of the metals results exceeded the screening levels. Therefore, no further investigation or remedial actions are required for metals at the Site. The surface soil meets residential use standards.

As part of the evaluation process, DNREC re-evaluated the risk for the subsurface soil contaminated with PAHs for construction workers. The construction worker risk assessment indicated no risk above DNREC standards.

The use of groundwater in the area was also re-evaluated. DNREC determined that the dieldrin originates from a source to the northwest and hydraulically upgradient of the Site. DNREC determined that Site and surrounding properties were restricted by the local water company from installing wells. Since no one is able to use the groundwater, there is no need for DNREC to restrict the Site water use. As a result, there is no need to continue the use of a GMZ. Mass loading calculations indicate that dieldrin will not impact the Delaware River.

What is the environmental problem at the Former Holly Oak Substation Site?

The PAH soil would have presented a risk to future residents if it was exposed at the surface. However, this soil is buried under clean soil.

What clean-up actions have been taken at the Former Holly Oak Substation Site?

In 1990, one foot of soil was removed from an area containing PCBs over 10 parts per million (ppm). In 1994, 28 cubic yards of petroleum contaminated soil was removed for offsite disposal.

What does the owner want to do at the Former Holly Oak Substation Site?

The Site has no current development plans but the owner wants the Site suitable for residential reuse.

What additional clean-up actions are needed at the Former Holly Oak Substation Site?

DNREC proposes the following remedial actions for the Site, which needs to be completed before a Certificate of Completion of Remedy (COCR) can be issued:

1. A proposed Environmental Covenant must be submitted to DNREC for approval within 60 days of the issuance of the Final Plan of Remedial Action**.**

2. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), will be recorded in the office of the Recorder of Deeds within 60 days of the issuance of the Final Plan of Remedial Action. The Environmental Covenant must include the following activity and/or use restrictions:

   [a.] Interference with Remedy. There shall be no digging, drilling, excavating, grading, constructing, earth moving, or any other land disturbing activities at depths greater than 4 feet on the Property including any repair, renovation or demolition of the existing structures on the Property without the prior written approval of DNREC-SIRS;

3. If redevelopment occurs, develop a DNREC approved CMMP within 60 days of a Development Plan and prior to any land disturbing activities to prevent PAH soil from being placed on the ground surface.

What are the long term plans for the Site after the cleanup?

The Site has no current development plans but the owner wants the Site suitable for residential reuse.

How can I find additional information or comment on the Proposed Plan?

The complete file on the Site including the 2002 Remedial Investigation Report and the various reports are available at the DNREC office, 391 Lukens Drive in New Castle, 19720. Most documents are also found on: http://www.nav.dnrec.delaware.gov/DEN3/

The 20-day public comment period begins on February 22, 2015 and ends at close of business (4:30 pm) on March 16, 2015. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Rick Galloway, Project Officer or Robert Newsome, Public Information Officer.

Figure 1: Site Location Map
Figure 2: Site Map

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FIGURE 1
DE-1200
FORMER HOLLY OAK
SUB STATION
WILMINGTON DE

Glossary of Terms Used in this Proposed Plan

Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Contaminant of Concern (COC)	Potentially harmful substances at concentrations above acceptable levels.
Contaminated Materials Management Plan	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Groundwater Management Zone	A geographical area where DNREC restricts drilling for ground water because it is contaminated
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Poly chlorinated biphenyls (PCBs)	A synthetic, carcinogenic chemical formerly used in a wide variety of industrial applications but banned from most uses by the US EPA in 1979.
Preliminary Risk Assessment	A quantitative evaluation of only the most obvious and likely risks at a site
Risk	Likelihood or probability of injury, disease, or death.
Site Inspection (SI)	Environmental study of a site which includes the sampling of soils, groundwater, surface water, sediment and/or wastes on the property, as appropriate. This evaluation is performed on behalf of the United States Environmental Protection Agency (U.S. EPA).
SIRS	Site Investigation Restoration Section of DNREC, which oversees cleanup of sites that were contaminated as a result of past use, from dry cleaners to chemical companies
US EPA	United States Environmental Protection Agency