FINAL PLAN OF REMEDIAL ACTION

FORMER PEP-UP SITE – OPERABLE UNIT 2

302 and 310 Race Street *March 2015*
Georgetown, Delaware *DNREC Project No. DE-1571*

This Final Plan of Remedial Action (Final Plan) presents clean-up actions required by the Department of Natural Resources and Environmental Control (DNREC) to address environmental contamination at the Former Pep-Up Site – Operable Unit 2.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for Operable Unit 2 (OU-2) of the Site on April 16, 2014 and opened a 20-day public comment period. The Proposed Plan is attached as Attachment A. There were several comments from the public which are attached as Attachment B. These comments were addressed in the Final Plan as follows-

> Under the remedial actions section of the proposed plan, the provision in Remedial Action 1 to provide an alternative water supply has been removed. Language was added to Remedial Action 1 that indicates that JG Townsend well, PW-1, is restricted until it reaches Drinking water standards and that upon reaching drinking water standards, DNREC may remove the restriction.
>
> Remedial Action 1 now identifies that DNREC will be the entity that is restricting the use of JG Townsend's well, PW-1.
>
> Remedial Action 2 now identifies that responsible parties will update the environmental covenant.
>
> Remedial Action 4 now identifies that Pep-Up will implement the DNREC-approved Long-Term Stewardship Plan. The effectiveness of the remediation was changed in Remedial Action 4 from requirements in the Focused Feasibility Study (FFS) to being based on the "revised Long-Term Stewardship (LTS) plan".
>
> DNREC also changed the definition of the Site in the proposed plan from the property boundary to include "groundwater contamination related to the release that migrated beyond the property boundary."

The remedial actions were updated in the Final Plan as follows-

What additional clean-up actions are needed at the Former Pep-Up OU-2 Site?

The remedial alternatives for the Site were evaluated in the March 2014 Focused Feasibility Study (FFS). Based on the FFS and comments to the proposed plan, DNREC proposes the following remedial actions for the Site, which needs to be completed before a Certification of Completion of Remedy (COCR) can be issued:

1. DNREC will Restrict JG Townsend's well, PW-1, to non-potable use until it reaches drinking water standards. Upon reaching these standards, DNREC may elect to remove the restrictions.

2. Responsible parties will update the Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), which will be recorded in the office of the Recorder of Deeds to include the following:

    a. No groundwater wells shall be installed, and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-SIRS and DNREC Division of Water; and

    b. Reference the Groundwater Management Zone (GMZ) for the Site.

3. DNREC will establish a GMZ to ensure that no groundwater well permits shall be issued for the construction or use of groundwater on the Site without the prior written approval of DNREC-SIRS and DNREC-Division of Water.

4. Pep-Up will implement the DNREC-approved Long-Term Stewardship (LTS) plan which will include monitoring of a system of wells and PW-1 for VOCs for two years to determine the effectiveness of the soil remedial action which was previously completed at the Site. The effectiveness of the remediation will be based on the requirements outlined in the revised LTS plan. Based on the results, DNREC may at its discretion reduce or eliminate the sampling requirements or require an active groundwater remedy.

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

Timothy T. Ratsep, Program Administrator
Site Investigation and Restoration Section

March 19, 2015
Date

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ATTACHMENT A

PROPOSED PLAN OF REMEDIAL ACTION

Former Pep-Up OU-2 (Groundwater)
Georgetown, Delaware
DNREC Project No. DE-1571

April 2014

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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PROPOSED PLAN OF REMEDIAL ACTION

Former Pep-Up
Operable Unit 2 (Groundwater)
Georgetown, Delaware
DNREC Project No. DE-1571

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

Approved by:

Timothy Ratsep, Environmental Program Administrator
Site Investigation & Restoration Section

April 11, 2014
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 publishes a Final Plan of Remedial Action (Final Plan) for the Site.

What is the Former Pep-Up OU-2 Site?

The Former Pep-Up property is located at 302 and 310 North Race Street in Georgetown, Delaware, and consists of three (3) tax parcels (1-35-14.20-108, 110, and 111), totaling approximately 1-acre (Figure 1). The nearest intersection to the Site is New Street and Race Street. The property consists of a commercial office building surrounded by a gravel parking lot and is zoned commercial (Figure 2).

The Former Pep-Up OU-2 Site (Site) consists of the groundwater contamination beneath the property. This proposed plan addresses Former Pep-Up OU-2 Site.

Soil and soil gas contamination beneath the property was addressed as Former Pep-Up OU-1. The soils were addressed in the Former Pep-Up OU-1 Final Plan of Remedial Action dated May 2012.

Several Hazardous Substance Cleanup Act (HSCA) sites are adjacent to the Site including JG Townsend Site (DE-0208), Atlantic Industrial Optics Site (DE-0209), Georgetown Coal Gas Site (DE-188) and Georgetown Cleaners Site (DE-113).

What happened at the Former Pep-Up OU-2 Site?

The Site operated as a petroleum distribution center from 1930 to 2005 handling gasoline, kerosene and heating oil. A petroleum release occurred likely as a result of historic operations, which impacted groundwater beneath the Site. JG Townsend facility has a process well, PW-I, which has been impacted and it isn't suitable for use as drinking water.

What is the environmental problem at the Former Pep-Up OU-2 Site?

The groundwater at JG Townsend facility's well, PW-1, has been impacted with volatile organic compounds (VOCs) including benzene and tetrachloroethene (PCE) and is not suitable for drinking water purposes. The Former Pep-Up property is a source of benzene and the source of PCE is Georgetown Cleaners Site.

What clean-up actions have been taken at the Former Pep-Up OU-2 Site?

In August 2011, over 3,000 tons of petroleum-contaminated soils from the Former Pep-Up OU-1 Site were excavated, properly disposed, and backfilled with clean fill. Oxygen releasing compounds were added to the excavation to help breakdown the petroleum contamination.

What does the owner want to do at the Former Pep-Up OU-2 Site?

The Site is being used by Xergy, Inc. for office space and manufacturing activities.

What additional clean-up actions are needed at the Former Pep-Up OU-2 Site?

The remedial alternatives for the Site were evaluated in the March 2014 Focused Feasibility Study (FFS). Based on the evaluation in the FFS, DNREC proposes the following remedial actions for the Site, which needs to be completed before a Certification of Completion of Remedy (COCR) can be issued:

1. Restrict the use of JG Townsend's well, PW-1 to non-potable and provide an alternative water supply.

2. Update the Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), which will be recorded in the office of the Recorder of Deeds to include the following:

    a. No groundwater wells shall be installed, and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-SIRS and DNREC Division of Water; and

    b. Reference the Groundwater Management Zone (GMZ) for the Site.

3. DNREC will establish a GMZ to ensure that no groundwater well permits shall be issued for the construction or use of groundwater on the Site without the prior written approval of DNREC-SIRS and DNREC-Division of Water.

4. Develop a DNREC-approved Long-Term Stewardship (LTS) plan which will include monitoring of a system of wells and PW-1 for VOCs for two years to determine the effectiveness of the soil remedial action which was previously completed at the Site. The effectiveness of the remediation will be based on the requirements outlined in the FFS. Based on the results, DNREC may at its discretion reduce or eliminate the sampling requirements or require an active groundwater remedy.

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

The complete file on the Site including the Remedial Investigation Report, Focused Feasibility Study 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 April 16, 2014 and ends at close of business (4:30 pm) on May 6, 2014. 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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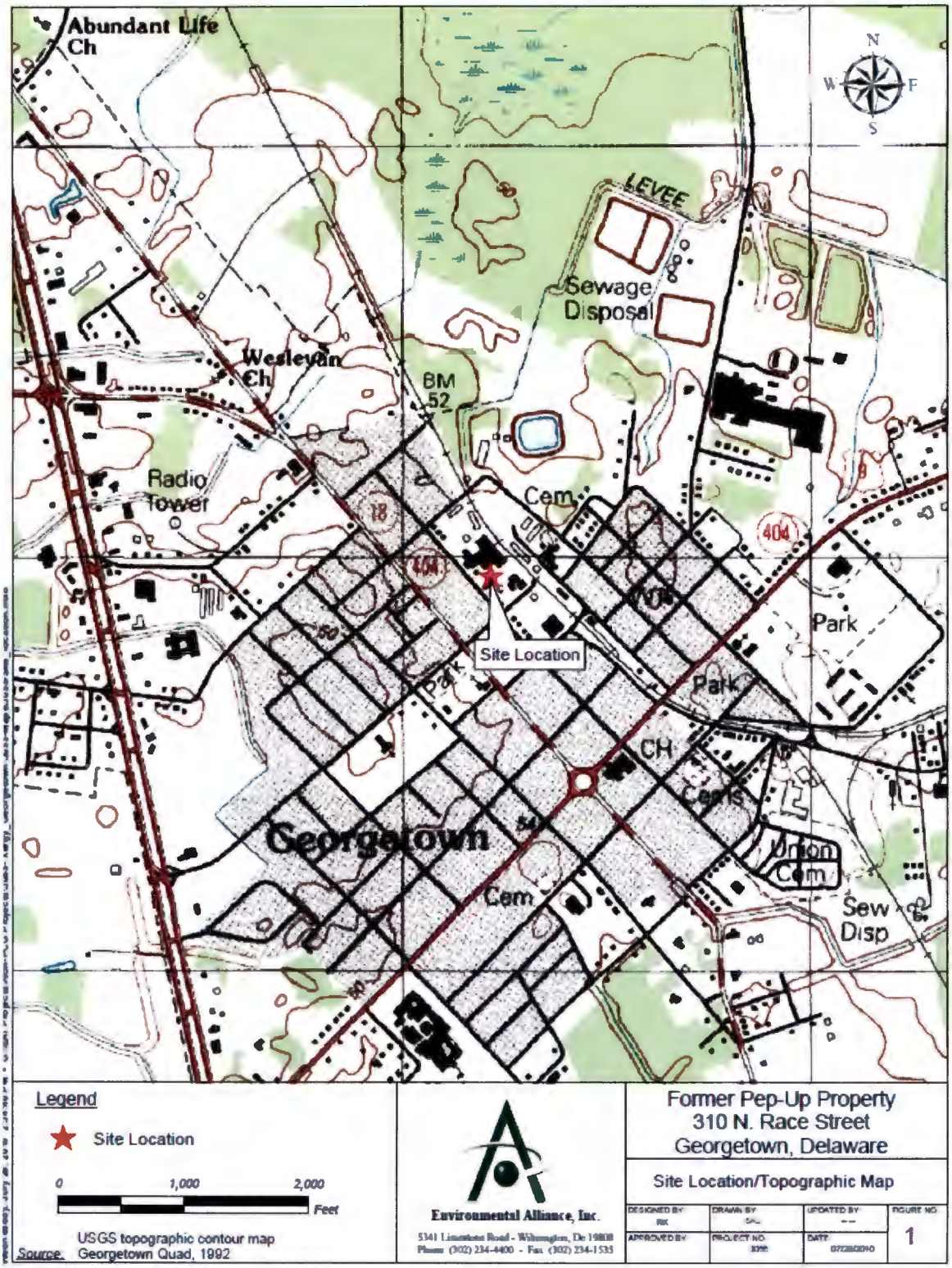

Figure 1: Site Location Map

Figure 2: Site Map

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.
Final Plan of Remedial Action (Final Plan)	DNREC's adopted plan for cleaning up a hazardous site.
Groundwater Management Zone (GMZ)	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.
Operable Unit (OU)	A division of the site into separate parts. OUs can be divided based on the matrix (soil, groundwater, air, sediment, etc.) or surface features (part of a property).
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
Surficial aquifer	The surficial aquifer system comprises all materials from the water table to the top of the confining unit (clay layer).
Long-Term Stewardship (LTS) Plan	A plan to periodically check the status of a remedy to make sure that it remains in place and effective.
Uniform Environmental Covenants Act (UECA)	A restriction placed on a tax parcel that remains on the tax parcel regardless of property transfers.

ATTACHMENT B
Response to the Public Comments on the Proposed Plan of Remedial Action
Former Pep-Up OU-2 (DE-1571)

Comments to the Proposed Plan were received from Ten Bears Environmental Associates Co. (Ten Bears) and Young Conway Stargatt & Taylor, LLP. The comment letter from Ten Bears was received on May 6, 2014 and the comment letter from Young Conway Stargatt & Taylor, LLP s was received on April 28, 2014. The following response has been sent to address the comments. The response was discussed in a meeting on August 7, 2014.

Ten Bears May 6, 2014

Comment #1 -2nd paragraph-*The selected MNA allows the above named site operators to avoid actively cleaning up their contribution to the groundwater contamination.*

Response #1- DNREC disagrees with this statement. An active remedy has already occurred at the Pep-Up Site, which had soil removal action and chemical oxidation of the groundwater. At Georgetown Coal Gas Site most of the soil was removed down to the water table. Numerous active remedies were explored in the past to address impacts at PW-1 including offsite replacement well (abandoned when benzene contamination was observed in the well), deep confined well (Townsend did not want it because of iron issues), and pump and treat (Townsend rejected due to concerns about possible contaminated water breakthrough into canning product).

Comment #2- 2nd paragraph-*The stated two year monitoring is implausible given the almost two decade of groundwater monitoring already performed at the sites.*

Response #2- The two year monitoring is to determine and document whether the Pep-Up removal action and chemical oxidation groundwater treatment in August of 2011 was sufficient to remediate groundwater at and in the vicinity of PW-1. Based on the results of the monitoring, DNREC may at its discretion reduce or eliminate the sampling requirements or require an active groundwater remedy.

Comment #3- 2nd paragraph-*Furthermore, the FFS and selected remedy do not provide a mechanism for restitution to Townsend for the past cost they incurred for the same nearly two decades of purchasing water as a replacement for their groundwater supply...*

Response #3- Townsend may have a private cause of action against any party that contributed to the contamination at issue. But that issue is not relevant to the purpose and objective of the proposed plan. The purpose of the proposed plan is to provide information to the public on how the Site will be remediated. It is not within DNREC's statutory duties under HSCA to resolve disputes between private parties.

Comment #4- 3rd paragraph- *They continue to be stigmatized as a HSCA site.*

Response #4- Townsend joined the VCP to become a HSCA site. Furthermore they have not completed all the remedial actions to complete their requirements for a COCR.

Comment #5- Page 2, 1st paragraph- *By permitting individual site contaminators to proceed with their own individual MNA remedies which (under realistic timeframes) collectively will cost as much as active treatment remedy and ignores the larger issue of financial responsibility...*

Response #5- DNREC believes that the MNA timeframes are realistic and cost effective and disagrees that it is ignoring the financial responsibility. Financial contributions were discussed and agreed to in the August 7, 2014 meeting. DNREC considers that the issue has been addressed.

Comment #6- Page 3, 3rd paragraph- *JG Townsend would like to see DNREC select a remedy for the entire Groundwater Operable Unit (including Georgetown Cleaners Site as well as the Georgetown Coal Gas Site and Former PepUp Site), which clearly assigns financial responsibility to the contaminators not only for Townsend's past costs, but also their future costs to procure potable water required for their business operations.*

Response #6- The issue of the financial responsibility of the PRPs is irrelevant with respect to DNREC's consideration of an appropriate remedy. Financial contributions were discussed and agreed to in the August 7, 2014 meeting. DNREC considers that the issue has been addressed.

Comment #7- Page 3, 3rd paragraph- *Further the Proposed Plan should be revised to include a longer time period of future groundwater monitoring....*

Response #7- By using a shorter timeframe, DNREC ensures that if PepUp cannot attain the remedial goals in the LTS, it will be required to evaluate an active remedy.

Young Conway Stargatt & Taylor, LLP April 28, 2014

Comment #8- *Remedial Action #1 ...gives a third party, JG Townsend, control over a condition that must be fulfilled in order for DNREC to issue a COCR to Pep-Up. As you are aware, ...Townsend would not consent to deed restricting the use of their well to non-potable use. ...However, DNREC cannot hold a COCR to Pep-Up based on a condition that it cannot control and over which a third party is in ultimate control.*

Response #8-DNREC can enforce the restricted use of the well. Even if J.G. Townsend is determined to be an innocent landowner and therefore not liable for the contamination of its land, it is required to cooperate with DNREC in remediating the Site. Furthermore, at the August 7, 2014 meeting, Townsend agreed to restrict well use in exchange for financial contributions.

Comment #9-*Similarly, JG Townsend cannot be forced by CPG to accept an alternative water supply...*

Response #9- This language was removed. Financial contributions were discussed and agreed to in the August 7, 2014 meeting. DNREC considers that the issue has been addressed.

Comment #10-*Under the terms of this Proposed Plan, JG Townsend is free to choose whether it wants an alternative water supply or not.*

Response #10- This language was removed.

Comment #11- *On page 4 of the Former Pep-Up OU-2 Focused Feasibility Study, DNREC mentions that DHSS restricted the use of PW-1 to non-potable use until returned to potable use standards. This restriction obviates the need for remedial action #1 in the Proposed Plan.*

Response #11- DHSS and DNREC have different standards and objectives. Therefore, in order to ensure compliance with DNREC standards, DNREC must place a restriction. The proposed plan will be revised as follows to resolve the return to use of PW-1. "*Restrict JG Townsend's well, PW-1, to non-potable use until it reaches drinking water standards. Upon reaching these standards, DNREC may elect to remove the restriction.*"

August 7, 2014 Meeting – Additional Comments to the Proposed Plan

Comment #12- It is not clear who will be performing the remedial action

Response #12- DNREC clarified this by adding who is responsible for each remedial action at the beginning of each Remedial Action statement.

Comment #13- Remedial Action 4 is focused on implementation of the Long-Term Stewardship Plan (LTS). The remedial action states that the effectiveness of the remedy will be determined by requirements in the FFS. It is more appropriate that effectiveness is addressed in the LTS plan.

Response #13- DNREC changed LTS to FFS. The sentence now reads "The effectiveness of the remediation will be based on the requirements outlined in the revised LTS plan."

Miscellaneous- On page 3 of the Final Plan, DNREC changed the definition of Site from "The Former Pep-Up OU-2 Site (Site) consists of the groundwater contamination beneath the property." to "The Former Pep-Up OU-2 Site (Site) consists of the groundwater contamination beneath the property and *groundwater contamination related to the release that migrated beyond the property boundary.*" This was done to clarify that the definition of a Site extends beyond the property boundary.