pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

May 5, 2023

Ms. Anne Garr, Esq.
Hilco Redevelopment Partners
111 S. Wacker Drive, Suite 3000
Chicago, IL 60606

Re: Site Characterization Report Disapproval
Storage Tank System Release August 10, 2022 and August 25, 2022
Facility ID No. 51-33624
Incident No. 57973
Tank Group 7
Philadelphia Refinery Girard Point Processing Area
3144 West Passyunk Avenue
City of Philadelphia
Philadelphia County

Dear Ms. Garr:

The Department of Environmental Protection (DEP) has reviewed the documents titled "Site Characterization Report – Tank Group 04", dated February 2023 and received on February 6, 2023. The documents were prepared by Terraphase Engineering and submitted as a Site Characterization Report (SCR) and Risk Assessment (RA) as required by 25 Pa. Code Section 245.310(a). You selected site specific standards (SSS) as the remediation standards for soil and groundwater.

In accordance with 25 Pa. Code Section 245.310(c), DEP disapproves the SCR and RA based on the following:

1. The sources of contamination were not adequately determined as required by 25 Pa. Code Section 245.309(b)(3), as referenced by 25 Pa. Code Section 245.310(a). The AST Closure Reports submitted did not describe the method of piping closure, condition of the tanks, method of purging the tanks and vapor monitoring as indicated on questions 2 through 4 in Section II.

2. A statement certifying that a site-specific plan was implemented in accordance with Occupational Safety and Health Administration (OSHA) requirements in 29 Code of Federal Regulations (CFR) 1910.120 was not included in the SCR, as required by 25 Pa. Code Section 245.310(a)(11).

3. The SCR did not identify the remediation standard which will be attained at the site in accordance with 25 Pa. Code 245.310(a)(26). Soil and groundwater analytical results

were not compared to SHS MSCs. In addition, the report is to be concisely organized in accordance with 25 Pa. Code Section 245.310(a). Analytical results should be tabularized and compared to SHS MSCs, vapor intrusion screening levels, or EPA RSLs for initial screening.

4. Site characterization was not complete as required by 25 Pa. Code Section 245.309(b), as referenced by 25 Pa. Code Section 245.310(a)(12). The characterization samples did not vertically and laterally characterize soil impacts. For example, GPR791-04 AST closure sample contained benzene at concentrations that exceeded both the direct contact and soil to groundwater SHS MSCs from the sample collected from 3-3.5 ft. Subsequent soil samples were collected from the 4-4.5 ft and 4.5-5 ft intervals and saturated soils were encountered at depths greater than 5 ft below grade. These two characterization samples exceeded the soil to groundwater SHS MSC only. The subsurface log for the characterization borehole indicates PID responses ranging from 27.3 to 327 ppm from the 0-2 ft interval and a soil sample was not collected from the surface soil interval for evaluation of the direct contact exposure pathway. GPR791-04 exceedances were also not laterally delineated.

5. Sufficient physical data was not provided in the SCR to determine the extent of migration of regulated substances in groundwater in accordance with 25 Pa. Code Section 245.309(b)(4) as required by 25 Pa. Code Section 245.310(a). Defining the horizontal extent of concentrations of regulated substances above the standard requires more than one round of groundwater sampling for site characterization as required by 25 Pa. Code Section 245.309(b)(4). Only one round was conducted for this tank group.

6. The disposition of characterization wastes was not documented as required by 25 Pa. Code Section 245.310(a)(24). Liquid disposal documentation was missing from the AST Closure Reports.

7. Sufficient information though field investigations and multiple lines of evidence were not submitted to determine the source of light non-aqueous phase liquids (LNAPL) detected within the AST berm area, as required by 25 Pa. Code Sections 245.309(b)(4).

8. The future vapor intrusion exposure pathway was not addressed, as required by 25 Pa. Code Sections 245.309(c)(12), as referenced by 25 Pa. Code Section 245.310(a), and 245.310(a)(32).

9. The potential for surface water impacts were not evaluated as part of this report in accordance with 25 Pa. Code Section 245.310(a)(29).

10. Improper screening values were used in the risk assessment as required by 25 Pa. Code Sections 250.409, 250.402 (b)(1), and 250.602(c)(1) as referenced by 25 Pa. Code Section 245.310(a)(31). Compounds of concern should be screened against EPA RSLs and not calculated risk based screening levels. In addition, a risk based screening level does not take at a target cancer risk of 1E-05 does not take into consideration cumulative effects.

11. All exposure pathways were not evaluated in the risk assessment as required by 25 Pa. Code Sections 250.409 and 250.602(c)(2) as referenced by 25 Pa. Code Section 245.310(a)(31). A construction/utility worker performing work in a trench may be a potential exposure scenario that was not discussed or considered in the risk assessment. In addition, lead exposures were not evaluated for the construction worker considering this receptor would have different exposure factors then the routine worker.

12. All exposure factors were not evaluated in the risk assessment as required by 25 Pa. Code Sections 250.409 and 250.602(e) as referenced by 25 Pa. Code Section 245.310(a)(31). Site-specific exposure factors used throughout the report should be properly explained and justified. For example, there were site-specific exposure factors for the maintenance worker, construction worker, and off-site receptor that were not properly justified. In addition, use of ½ of the reporting limit for exposure point concentration values is not appropriate in a site-specific risk assessment.

13. All exposure calculations were not presented clearly and accurately in the risk assessment as required by 25 Pa. Code Sections 250.409, 250.402 (b)(1), and 250.602(d) as referenced by 25 Pa. Code Section 245.310(a)(31). The calculation and variables used for the Adult Lead Model (ALM) were not discussed. The approach used to determine the unit cancer risks and unit hazard quotients calculated for a unit constituent concentration should be properly justified and further explained. The calculation of risk should be cumulative per receptor. If calculating risk by sampling point then risk needs to be cumulative per receptor for groundwater, soil, and inhalation pathways.

14. The toxicity assessment did not use correct information as required by 25 Pa. Code Sections 250.409, 250.602(c)(3), and 250.605 (b)(1)(ii) as referenced by 25 Pa. Code Section 245.310(a)(31). Sub-chronic toxicity values should not be used in place of chronic values. A cancer slope factor and unit risk factor exist for ethylbenzene and was not used. Outdated toxicity values were used for *methyl tertiary-butyl ether* (MTBE) from the Agency for Toxic Substances and Disease Registry (ATSDR) for oral reference dose. Toxicity values, including sub-chronic values, can only be used in a risk assessment when the value is published. The use of surrogates for toxicity values were not properly justified. The suitability of surrogates should be defined and thoroughly explained why the surrogates are deemed suitable in the risk assessment. The toxicity values for the polycyclic aromatic hydrocarbons (PAHs) listed in Table 1 are based on relative potency factors (RPF) applied to benzo(a)pyrene cancer slope factor and supporting information for the PAHs equivalency values should be provided in the report.

15. The risk assessment did not adequately discuss the degree of uncertainty associated with the risk assessment as required by 25 Pa. Code Sections 250.409 and 250.602(f) as referenced by 25 Pa. Code Section 245.310(a)(31). The uncertainty section 5.4 in this report lacks site-specific sources of uncertainty. For example, site-specific sources of uncertainty may include sampling issues, exposure parameters, or lab results.

16. The ecological assessment did not comply with 25 Pa. Code Section 245.310(a)(28). The ecological evaluation indicates the absence of wetlands or other potential sensitive

receptors at or adjacent to the Site without documenting the basis of the statement. A National Wetlands Inventory map or documentation of an on-site visit to substantiate the assertion that no wetlands were present on or around the site is needed.

Additional clarification is needed to understand the following:

- Please clearly identify the constituents of concern (COCs) and selected standards for each COC.

- According to the Work Plan, AST closure reports were to be submitted for DEP review. The AST Closure Reports for this tank group include loading tickets for tank plates, but not the remaining portion of the tanks or piping. The loading ticket does not indicate where the metal was sent for recycling or certificates of destruction. Please clarify the disposal location for the tanks, tank plates, and piping.

- The text of the report indicates that groundwater was not encountered, but this is inconsistent with the description of saturated noted on multiple subsurface logs.

- It is unclear why ethanol and tetraethylene glycol are listed on Table 1 (toxicity values) of the risk assessment but are not listed as COCs in the risk assessment.

Based on this disapproval, you should correct the deficiencies and submit a revised SCR in keeping with 25 Pa. Code Section 245.311(c)(4).

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800.654.5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717.787.3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717.787.3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions, please contact Lisa Strobridge, PG by email at lstrobridge@pa.gov or by telephone at 484.250.5796.

Sincerely,

Ragesh R. Patel

Ragesh R. Patel

Regional Manager
Environmental Cleanup and Brownfields

cc: Philadelphia Department of Public Health
Philadelphia L&I
Ms. Julianna Connolly, HRP
Mr. Joe Jeray, HRP
Mr. Kevin Long, Terraphase
Mr. Nick Scala, Terraphase
Mr. Richard Staron
Ms. Lisa Strobridge