pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

June 9, 2023

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

Re: Site Characterization and Risk Assessment Report Disapproval
Storage Tank System Release August 12 and 20, 2021, and May 23, 2022
Facility ID No. 51-33620
Incident No. 56663
Tank Group 3
Philadelphia Refinery Point Breeze 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 "Revised Site Characterization Report – Tank Group 03", dated March 2023 and received on March 12, 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 could not be determined or confirmed in accordance with 25 Pa. Code Sections 245.310(a)(9) and 245.309(b)(3), as referenced by 25 Pa. Code Section 245.310(a). AST Closure Reports were not submitted as part of the SCR as agreed upon in the April 23, 2021 Aboveground Storage Tank Closure Workplan. Therefore, observations and activities completed during the AST closure could not be assessed with respect to the potential for additional source areas.

2. Sufficient physical data was not presented that determined the extent of migration of regulated substances in soil and groundwater in accordance with 25 Pa. Code Section 245.309(b)(4), as referenced by 25 Pa. Code Section 245.310(a)(12). For example, AST closure samples were not consistently collected from the appropriate depths, resulting in incomplete soil delineation for locations below above ground piping. Impacts that were observed in soil were not consistently laterally and vertically characterized across the site to the selected standard. Potential impacts to groundwater were also not sufficiently evaluated.

3. The vapor intrusion exposure pathway was not adequately evaluated in accordance with 25 Pa. Code Sections 245.309(c)(12), as referenced by 25 Pa. Code Section 245.310(a)(32).

4. The soil characteristics were not adequately evaluated as required by 25 Pa. Code Section 245.309(c)(9), as referenced by 25 Pa. Code Section 245.310(a).

5. Soil boring logs were not provided in accordance with 25 Pa. Code Section 245.310(a)(14). The information on the soil boring logs do not reflect the same information present on field notes with respect to lithologic descriptions at evaluated and documented intervals.

6. A conceptual site model was not provided in accordance with 25 Pa. Code Section 245.310(a)(23).

7. The potential for surface water impacts was not evaluated as part of this report as required by 25 Pa. Code Sections 250.309 or 250.406, as referenced by 25 Pa. Code Section 245.310(a)(29).

8. 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. There are inconsistencies in the COCs identified in tables throughout the risk assessment. It is not appropriate to use the detection frequency to eliminate a COC from the risk assessment.

9. 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). It is unclear how the exposure to identified receptors is being evaluated across tank groups. Proper justification should be provided regarding the exposure areas. Additional explanation is also needed to explain how groundwater is being evaluated per tank group. Groundwater exposure should be evaluated sitewide and not limited to a specific tank group. 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. It doesn't appear that lead exposures were evaluated for the construction worker considering this receptor would have different exposure factors then the routine worker.

10. 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.

11. 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. The non-carcinogenic averaging time was not correctly calculated for the resident receptor group.

12. 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. For example, using pyrene for benzo(g,h,i)perylene and phenanthrene should be justified. 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.

13. 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.

14. 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.

In addition to the above deficiencies, additional clarification is needed for the following:

- It is unclear why the fetal/maternal lead blood ratio is missing from Table 12 and whether it was used in the calculation.

- The “refined exposure concentrations” listed in Section 5.3 do not match the suggested ProUCL outputs values in Table 12 for 1,2,4-trimethylbenene. Explanation should be provided why the 95% upper confidence limit (UCL) was chosen for the exposure point concentrations (EPC) when other 95% UCL outputs were available.

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: Ms. Leigh-Anne Rainford, MPH, Philadelphia DPH
Philadelphia L&I
Ms. Julianna Connolly, LSP, HRP
Mr. Joe Jeray, PE, HRP
Mr. Kevin Long, Terraphase
Mr. Nick Scala, Terraphase
Mr. Richard Staron
Ms. Lisa Strobridge