



**REGION 10**  
SEATTLE, WA 98101

June 26, 2024

**MEMORANDUM**

**SUBJECT:** Comments on the Focused Source Control Evaluation Work Plan  
Zenith Energy Terminals Holding LLC, Portland, Oregon  
ECSI # 1281  
May 20, 2024

**FROM:** Laura Hanna, RG, Remedial Project Manager   
Superfund and Emergency Management Division, EPA

**TO:** Jim Orr, RG, Project Manager  
NWR Cleanup, Oregon Department of Environmental Quality

The following are the U.S. Environmental Protection Agency's (EPA's) comments on the document titled *Focused Source Control Evaluation Work Plan* (FSCE Work Plan). The FSCE Work Plan was prepared by GeoEngineers, Inc. (GeoEngineers) for Zenith Energy Terminals Holdings LLC (Zenith). The facility (referred to herein as the Terminal) that is subject to the FSCE Work Plan is located at 5501 Northwest Front Avenue in Portland, Oregon and listed as Environmental Cleanup Site Information (ECSI) # 1281. The Terminal is located approximately 600 feet from the Willamette River upland of the Willbridge Cove and River Mike 9 West remedial design project areas within the Portland Harbor Superfund Site (PHSS). The FSCE Work Plan focuses on the groundwater and stormwater upland source contaminant transport pathways.

EPA understands the primary objective of the FSCE Work Plan is to evaluate conditions in the FSCE Study Area. The FSCE Study Area includes the portions of the Terminal that are known to have been impacted by the Paramount 2011 naphtha release (2011 release), may potentially have been impacted by the 2011 release, or may potentially become impacted by the 2011 release in the future. EPA's comments are categorized as "Primary," which identify concerns that must be resolved to achieve the objective.

**Primary Comments**

1. Revise the FSCE Work Plan to identify analytical data for total petroleum hydrocarbons (TPH) from the FSCE Study Area groundwater (including wells A-1, A-2 and W-4/W-4A) for the time period after the 2011 naphtha release as a data gap and plan to collect this data for further evaluations. Per Section 8.2 of the FSCE Work Plan, TPH is a contaminant of interest (COI) associated with the 2011

naphtha release, however it appears TPH groundwater data from within the FSCE Study Area was not collected following the 2011 release. Obtaining this groundwater data is crucial to understand if TPH levels (which already exceeded PHSS cleanup levels [CULs] in wells A-1, A-2 and W-4/W-4A prior to 2011<sup>1</sup>) have increased further following the 2011 release and to confirm impacted groundwater due to the 2011 release is not a threat to the river.

Future TPH analysis of FSCE Study Area groundwater should include diesel-range organics (DRO), gasoline-range organics (GRO) and oil-range organics (ORO) including carbon number C10 to C12 compounds for comparison with results from prior to the 2011 release. Additionally, it would be beneficial to collect an additional round of groundwater data for benzene, toluene, ethylbenzene, and xylenes (BTEX) (as an important representative of naphtha compositions; Univar Solutions, 2019) and polynuclear aromatic hydrocarbons (PAHs) along with TPHs for FSCE study area wells to ensure comprehensive coverage of the naphtha composition range and to better understand any potential migration of the impacted groundwater since the 2011 release.

2. Revise the FSCE Work Plan to include monitoring well A-3 within the FSCE study area or provide further clarification regarding why this well is not included in the FSCE study area. Per Section 7.18 of the FSCE Work Plan, PAHs were detected in monitoring well A-3 at concentrations below PHSS CULs prior to the 2011 naphtha release. However, in 2018 following the 2011 naphtha release, concentrations of several PAHs were detected at concentrations exceeding PHSS CULs (e.g., benzo(a)pyrene detected at 0.0197 µg/L which is two orders of magnitude higher than the PHSS groundwater CUL of 0.00012 µg/L) (Zenith Energy, 2018). Given the proximity of monitoring well A-3 to the naphtha release area (shown in FSCE Work Plan Figure 4), the apparent increase in PAH concentrations in monitoring well A-3 since the 2011 release and that PAHs are a COI associated with the 2011 release (see FSCE Work Plan Section 8.2), EPA recommends A-3 be included within the FSCE Study Area. Additionally, EPA recommends that an additional round of groundwater data for TPH (including compounds with carbon numbers C10 through C12), BTEX and PAH analysis be collected from well A-3 per the rationale described in Primary Comment #1.

## References

Zenith Energy, 2018. *Naphtha Spill Area Storm Water System Study, NPDES Stormwater Discharge General Permit #1200Z, Zenith Energy Terminals (formerly Arc Terminals) Holdings, LLC, Portland Terminal, ODEQ File No. 16055.*

Univar Solutions, 2019. *Safety Data Sheet, VM&P Naphtha.*

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cc: David Lacey, DEQ  
Josie Clark, EPA  
Katie Young, CDM Smith

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<sup>1</sup> Per Section 7.18 of the FSCE Work Plan and based on groundwater monitoring results through September 2010, DRO and/or ORO were detected in samples collected from FSCE study area wells A-1, A-2, and W-4/W-4A and GRO was detected in W-4/W-4A prior to the 2011 naphtha release. The concentration of DRO (C10 through C12 compounds) ranged from 422 to 2140 µg/L, which is significantly higher than the PHSS groundwater CUL for aliphatic carbons in the range of C10 through C12 of 2.6 µg/L.