UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SUPERFUND &
EMERGENCY
MANAGEMENT DIVISION

MEMORANDUM

DATE: September 27, 2021

SUBJECT: Passive Soil Gas Investigation and Proposed Well Locations
Northwest Pipe Company Facility, Portland, OR
ECSI #138
August 19, 2021

FROM: Benjamin Leake, PMP BJL
Remedial Project Manager

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

Following are the U.S. Environmental Protection Agency (EPA) comments on the August 19, 2021 documents titled *Passive Soil Gas Investigation Results and Proposed Well Locations* (Report). Jacobs, on behalf of Northwest Pipe Company, prepared the Report. The Northwest Pipe Company facility (Site) is located at 12005 North Burgard Road, Portland, Oregon, near River Mile 4 East of the Portland Harbor Superfund Site (PHSS). The site is listed in the Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Information (ECSI) database as ECSI #138. The Northwest Pipe Company site groundwater is hydraulically upgradient from the Port of Portland's (Port's) Terminal 4 facility. The stormwater conveyances collect and discharge water towards the north into surface water of the International Slip (IT Slip) on the Willamette River.

The objective of this data collection effort was to provide a basis for siting additional groundwater monitoring wells in areas of high VOC concentration along the groundwater flow path between Northwest Pipe monitoring well MW-03, near the southern boundary of the Northwest Pipe Site, and the Port's monitoring wells T4S1MW-03s and T4S1MW-09, near Terminal 4 Slip 1 on the Port's Terminal 4 property. EPA's review focused on assessing the data presented in the Report and evaluating the evidence presented to support the proposed monitoring well locations.

EPA comments are categorized as: "Primary," which identify concerns that must be resolved to achieve the assessment's objective; "To Be Considered," which, if addressed or resolved, would reduce uncertainty, improve confidence in the document's conclusions, and/or best support the assessment's objectives; and "Matters of Style," which substantially or adversely affect the presentation of the technical information provided in the report.

Primary Comments

1. EPA recommends a revision to the locations of the proposed monitoring wells shown on Figure 5 to include a total of three monitoring wells. One monitoring well should be located near PSG16 and downgradient of MW-03, one monitoring well should be located east of PSG19 in the vicinity of the historical Gatton Creek channel and downgradient of T4S1MW-22, and one monitoring well should be located between PSG12 and PSG13 and downgradient of T4S1MW-23. Concentrations of PCE in groundwater samples collected from T4S1MW-22 and T4S1MW-23 exceed the PHSS Record of Decision (ROD) (EPA, 2017) Cleanup Levels (CULs) for groundwater and vinyl chloride exceeds the CUL for the groundwater sample collected from T4S1MW-22. Spatial distribution of the monitoring wells in the down gradient areas of monitoring wells where contaminants exceed the CULs, and passive soil gas results indicate the presence of PCE, will improve confidence in the assessment of the lateral extent of the plume and increase the lateral area encompassed for early warning of potential downgradient migration of contaminants towards the river.

To Be Considered Comments

1. The conclusion offered in Section 3.3 *Results and Comparison to Groundwater Data* that "non-detect readings downgradient of PSG10 and T4S1MW-22 confirm that any remnant of the buried Gatton Creek is not acting as a preferential pathway for contaminant migration" should be revised. Although passive soil gas sample results are one line of evidence, additional empirical information such as a monitoring well with analytical data and as an additional constraint on the groundwater elevation contours would be needed to confirm that the former creek channel is not acting as a preferential groundwater pathway.

2. The Report Table 1 and Figures 4 and 5 should include a clear description in the Notes or Legend to indicate how field duplicate sample results for PSG01 and PSG16 are presented. Additionally, the Report text in Section 3.3 Results and Comparison to Groundwater Data should include a discussion of the duplicate sample results and how the data is used.

3. Passive soil gas surveys analyzed by Beacon typically contain color iso-concentration maps that allow for visualization of the data on the figure. Consider adding a figure that illustrates the iso-concentration contours of PCE to assist the reader in visualization of the plume area.

Matters of Style Comments

None.

References

EPA 2017. *Record of Decision, Portland Harbor Superfund Site, Portland Oregon*.