



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

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SUPERFUND &  
EMERGENCY  
MANAGEMENT DIVISION

**MEMORANDUM**

**DATE:** August 13, 2020

**SUBJECT:** Passive Soil Gas Sampling Work Plan  
Northwest Pipe Company Facility, Portland, OR  
ECSI #138  
June 2, 2020

**FROM:** Benjamin Leake, PMP *BJL*  
Remedial Project Manager

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

The following are the U.S. Environmental Protection Agency's (EPA's) comments on the Passive Soil Gas Sampling Work Plan dated June 2, 2020, prepared by Jacobs Inc. for the Northwest Pipe Company. The Northwest Pipe Company site is listed in the Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Information (ECSI) as ECSI #138. The site is within the Burgard Industrial Park at 12005 North Burgard Way, Portland, Oregon, and is in an upland area at approximately River Mile 3.9 East. The Northwest Pipe Company site is hydraulically upgradient from the Port of Portland's (Port's) Terminal 4 facility. The site does not have a river bank but is listed in DEQ's upland reports, is shown on Figures 4.3 and 4.6.7 of DEQ's *Portland Harbor Upland Source Control Summary Report*, and is listed in the *Portland Harbor Superfund Site Record of Decision* as having a groundwater plume that discharges to the sediment management area at Terminal 4 Slip 1, at approximately River Mile 4.3 East.

The purpose of the proposed data collection, as stated in the work plan, is to use passive soil gas sampling results to provide a basis for siting additional monitoring wells downgradient of MW-03 near the southern boundary of the Northwest Pipe Company site and Port monitoring wells T4S1MW-03S and T4S1MW-09 near Terminal 4 Slip 1 on the Port's Terminal 4 property. This information will inform the upcoming work plan for collecting data and evaluating monitored natural attenuation (MNA) as a source control measure to contain volatile organic compounds (VOCs) in groundwater that discharges to surface water of the Willamette River. The purpose of EPA's review was to assess whether the proposed passive soil gas (PSG) investigation would provide an adequate basis for siting of MNA groundwater monitoring wells.

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

### **Primary Comments**

1. To best achieve the monitoring and documentation protocol requirements of a natural attenuation remedy (EPA 1998), the study should use soil gas data to delimit the margins of the plume and to locate future wells to monitor the attenuation that occurs at plume margins and/or at areas of potential preferential pathways.
2. To enhance confidence and reduce uncertainty of the plume centerline, EPA recommends extending the PSG grid west of T4S1MW-23 and east of TWS1MW-22 to the lateral extent of the known the plume. The plume extent shown in Figure 1 does not delimit the lateral extent of groundwater with chemicals exceeding the Portland Harbor Record of Decision cleanup levels (CULs), which is likely to extend beyond the existing wells, and it should be revised. The October 2019 groundwater monitoring results indicate tetrachloroethene (PCE), trichloroethene, and vinyl chloride CUL exceedances at T4S1MW-22, and PCE CUL exceedances at TWS1MW-23, both of which are outside of the plume extent shown in Figure 1.

### **To be Considered Comments**

1. The results from past investigations that were used to inform the decision on which VOCs are to be analyzed per Section 3.2 should be added as an appendix to confirm the rational for the limited selection of contaminants of interest.
2. EPA recommends the inclusion of details of equipment cleaning between installation of each PSG sampler. The PSG standard operating procedure references ASTM Standards D7758 and D5314 but does not describe how equipment will be cleaned between borings.

### **Matters of Style Comments**

1. To better support the basis of the groundwater characterization, include citation “Jacobs 2020” in the reference list and provide specific data and/or narrative as needed.

### **References**

U.S. Environmental Protection Agency (EPA). 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*. EPA/600/R-98-128. September

EPA. 2017. *Portland Harbor Superfund Site Record of Decision, Portland, Oregon*. Prepared by EPA Region 10.