UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101-3123

SUPERFUND &
EMERGENCY
MANAGEMENT DIVISION

MEMORANDUM

DATE: April 20, 2022

SUBJECT: Dioxin/Furan Stormwater Sampling Work Plan
Northwest Pipe Company Facility, Portland, OR
ECSI #138
March 2022

FROM: Benjamin Leake, PMP BJL
Remedial Project Manager

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

Following are the United States Environmental Protection Agency's (EPA's) comments on the Dioxin/Furan Stormwater Sampling Work Plan (Dioxin/Furan Stormwater SAP) for the Northwest Pipe Company Portland Plant (Site) prepared by Jacobs. The Site is on the east side of the Willamette River in the Burgard Park industrial area and discharges into the Willamette River via Outfall (OF) 18 in the IT Slip, which is part of the River Mile 3.5 East project area of the Portland Harbor Superfund Site (PHSS). The Site is registered in the Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Information (ECSI) database as #138.

EPA understands the objective of the Dioxin/Furan Stormwater SAP is to propose the methods to evaluate the performance of Northwest Pipe Company's Aquip stormwater treatment system to remove dioxins and furans, if present, from stormwater at the Site.

EPA's comments are categorized as "Primary," which identify concerns that must be resolved to achieve the objective; and "To Be Considered," which, if addressed or resolved, would reduce uncertainty, improve confidence in the document's conclusions, and/or best support the objectives.

Primary Comments

1. The Dioxin/Furan Stormwater SAP should be revised to comply with EPA's February 28, 2022, comment on the *Response to DEQ Questions on Dioxins* memo. EPA indicated that, "If the first two sampling events result in concentrations below ***clean up levels***, EPA may consider a proposal to suspend the final two sampling events" (***emphasis added***). The Dioxin/Furan Stormwater SAP appears to conflate Portland Harbor Superfund Site (PHSS) Record of Decision (ROD) remedial action levels (RALs) and cleanup levels (CULs) (EPA 2017). RALs apply to sediment (units µg/kg) and trigger active remediation, and CULs are the long-term contaminant concentrations that need to be achieved to meet remedial action objectives. The surface water CUL for 2,3,7,8-TCDD toxic equivalency (TCDD eq.) is the appropriate criteria for dioxins/furans in stormwater and should be integrated into Table 3-1 with units of micrograms per liter (µg/L).

To Be Considered Comments

1. The reporting limits indicated in Table 5-1 are above the surface water CUL for TCDD eq. When results from the sampling are presented, the uncertainty associated with reporting limits greater than screening levels should be discussed and incorporated into a weight of evidence evaluation regarding the recontamination potential of the stormwater pathway. To calculate TCDD eq., refer to the summing rules presented in the PHSS Program Data Management Plan (EPA 2020).

2. Given the proximity of reporting limits and CULs, EPA recommends performing Stage 2b data validation.

3. Section 2.1 Nature of Dioxins and Furans: The text states that manufacturing processes at the Site are not known to produce dioxins and furans. EPA recommends revising this section to mention the June 17, 1961, fire discussed in the *Response to DEQ Question on Dioxins memo* (Haute-Géologie, LLC 2021) that could have produced dioxins/furans.

4. Section 3.1 Sampling Frequency and Location: Understanding that the configuration of the stormwater system makes "first flush" somewhat irrelevant, EPA recommends that the Dioxin/Furan Stormwater SAP be revised to target Joint Source Control Strategy (DEQ and EPA 2005) storm event criteria as follows:
    - Antecedent dry period of at least 24 hours (as defined by <0.1 inches over the previous 24 hours)
    - Minimum predicted rainfall volume of >0.2 inches per event
    - Expected duration of storm event of at least 3 hours

5. Section 3.1 Sampling Frequency and Location: The text states that water from the system will be allowed to flow for a minimum of five minutes prior to sample collection. Clarify whether the system automatically pumps collected runoff into the Aquip vault or whether field personnel initiate the pump upon arrival. It appears that the Aquip system pump is automatically triggered by accumulated runoff, rather than manually activated.

6. Section 7.0 Reporting: In addition to the summary of analytical results, the data report should provide an evaluation of results that exceed CULs.

Matters of Style Comments

1. The method for analysis is stated as "Method E1613". The Dioxin/Furan Stormwater SAP should be revised to state that "EPA Method 1613" will be used.

References

DEQ and EPA. 2005. *Portland Harbor Joint Source Control Strategy.*

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

EPA. 2020. *Program Data Management Plan, Portland Harbor Remedial Design Investigation –Portland Harbor Superfund Site*.

Haute-Géologie, LLC. 2021. *Response to DEQ Question on Dioxins.* December 13, 2021.