

Review Comments

Source Control Evaluation Report

Intrepid Marble and Granite

Portland, Oregon

Report Dated April 11, 2023

The following are the U.S. Environmental Protection Agency's (EPA's) comments on the *Source Control Evaluation Report* (SCE report) prepared by EVREN Northwest, Inc. on behalf of Intrepid Marble and Granite. The Intrepid Marble and Granite facility (Site) is located at 4000 NW St. Helens Road in Portland, Oregon. The Site is located upland of the River Mile 9W in-water project area and is listed in the Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Information (ECSI) as #6148. The SCE report focuses on stormwater from the Site, which discharges to the Willamette River through City of Portland Outfall 19.

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. End of pipe confirmation sampling is needed to verify the assumption that replacing, repairing, and/or recoating the roofs will adequately address the high concentrations of zinc in stormwater runoff. As noted in Section 8.1, zinc concentrations in stormwater samples were two orders of magnitude higher than the ROD (EPA 2017) Table 17 cleanup level as updated (EPA 2020) and plot on the steep portion of the rank-order curves in DEQ's upland stormwater guidance (DEQ 2015). The SCE report describes that the property owner has already replaced, repaired, and recoated a portion of the roof and references preliminary data in Table 2 that suggest that the roof updates are effective at reducing zinc concentrations in stormwater discharge from roof drains. However, site-wide stormwater discharge data after the source control measure (SCM) has been completed is needed to verify the SCM adequately addresses the uncontrolled source of zinc in stormwater discharges.
2. Due to new data showing dioxins closer to Outfall 19 (OF-19), EPA asks that the Site add dioxins/furans (D/Fs) as an analyte for stormwater sampling. Surface sampling was conducted sitewide within the Portland Harbor Superfund Site in 2018. The sample taken nearest to Outfall 19 did not show elevated D/Fs, however this sample location was approximately 200 feet away from OF-19 and on the other side of a floating dock, near RM9W-C023. During the 2021 Pre-Design Investigation sampling work in-water work, the RM9W Project Area collected a surface sediment sample at the mouth of OF-19 and stormwater solids sample from OF-19 that exceed Portland Harbor remedial action levels (RALs). The sediment location, RM9W-C022 is shown on the excerpt in Figure 1 (FMC 2022). The surface sediment concentration of PeCDD was 3.57 pg/g and the surface sediment concentration of TCDD was 1.03 pg/g which are above the respective RALs. The in-line sediment trap stormwater solids collected from location RM9W-AAP929 also exceeded the PeCDD RAL. The in-line sediment trap stormwater solids PeCDD concentrations ranged from 2.00 to 3.36 pg/g in November and June, 2021, respectively. While

there are multiple sources of material that may impact the concentrations of D/Fs in surface sediment, EPA is looking to use empirical data to confirm that the Site is not a contributor of D/Fs to Outfall 19.

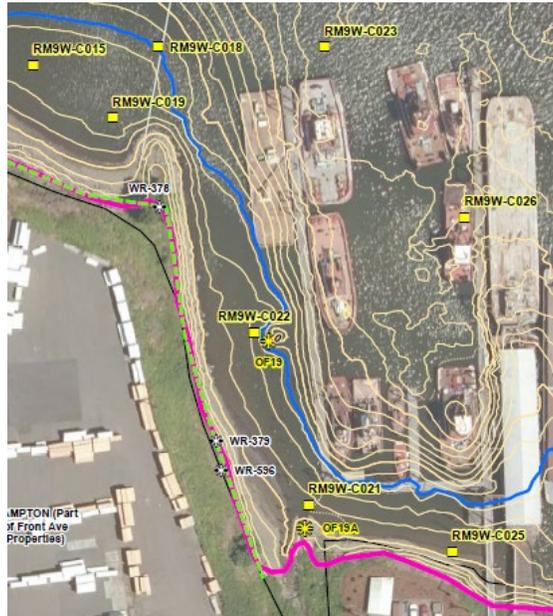


Figure 1: Excerpt from the Final RM9W PDI Evaluation Report showing location of RM9W-C02 adjacent to OF-19

To Be Considered

1. Provide total polycyclic aromatic hydrocarbon (PAH) and carcinogenic PAH (cPAH) results in Table 1 and describe the summation method. PAHs are often evaluated as a summation of total PAHs in addition to evaluation of individual PAH compounds. Appendix D provides plots of rank-order curves for total PAHs from DEQ's upland stormwater guidance (DEQ 2015), but summations are not provided in Table 1. The summation of cPAHs (as benzo(a)pyrene equivalent) should also be provided for a more direct comparison to the surface water CULs. Data handling and summation should follow Section 6 of the Portland Harbor Program Data Management Plan which can be found at EPA's website: <http://ph-public-data.com/document/DMP2021/>.
2. The SCE should include the methods used to estimate the percentage of total annual stormwater volume that infiltrates via the dry well versus the amount that discharges to City Outfall 19. Section 9.0 notes that an estimated 20 percent of the stormwater at the Site infiltrates in the dry well, but it is unclear how that estimate was derived. Understanding the frequency and/or volume of discharge to the City Outfall is helpful for characterizing stormwater loads from the Site.
3. Provide the flow capacity of the PerkFilter™ vault and the frequency of high-flow bypass. As shown in the PerkFilter™ product literature in Appendix D, the system includes a high-flow bypass assembly to divert flow that exceeds the treatment capacity of the filters and chamber. It is important to know how often treatment bypass occurs, and under what stormwater runoff conditions. If possible, it should be noted whether treatment bypass was occurring during any of the storm sampling events.
4. Clarify the location of sample collection. Section 6.2.1 states that "The outflow pipe from the dry well to the downstream pump manhole was designated as the sampling point (ML001)," whereas

the treatment configuration diagram on Figure 3 appears to show the sampling point from the treatment vault upstream of the dry well. It appears that either way, the sampled water is the effluent from the Perfilter™ treatment vault, but the text or figure should confirm.

5. Clarify the replacement frequency of the media cartridges and/or the data inputs used to decide when media replacement is needed. Media filters need to be replaced at regular intervals to avoid diminished performance. The SCE report alludes to this and references the manufacturer inspection and maintenance guide in Appendix D, but there are no concrete maintenance frequencies listed in the manufacturer literature. The selected replacement frequency should be timed to occur before media performance deteriorates.

Matters of Style

1. Correct the empty page that appears on page 4. It is unclear if information is missing from the PDF or if a blank page was inadvertently added.
2. Individual sample points are preferred for rank-order curves that are provided in Appendix D instead of just the maximum detected concentration. Plotting the individual sample points provides a more complete picture of the distribution of concentrations detected during stormwater monitoring.

References

- DEQ. 2015. *DEQ Guidance for Evaluating the Stormwater Pathway at Upland Sites*, Appendix E Tool for Evaluating Stormwater Data. Updated October 2015.
- FMC. 2022. Final Pre-Design Investigation (PDI) Evaluation Report and Response to EPA Comments. December 12.
- EPA. 2017. *Record of Decision, Portland Harbor Superfund Site, Portland, Oregon*. Prepared by EPA Region 10.
- EPA. 2020. Memorandum re: Errata #2 for Portland Harbor Superfund Site Record of Decision ROD Table 17. To Portland Harbor file. Office of Environmental Cleanup, USEPA Region 10, Seattle, Washington. January 14. The Errata #2 Table 17 supersedes the ROD Table 17, and the errata memo is found on EPA's website: <https://semspub.epa.gov/work/10/100200076.pdf>