REGION 10
SEATTLE, WA 98101

March 5, 2026

MEMORANDUM

SUBJECT: Comments on the *In Situ Stabilization Final Design Report*
Arkema, Portland, Oregon
ECSI # 398
February 13, 2026

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

TO: Katie Daugherty, 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 *In Situ Stabilization Final Design Report* (FDR). The FDR was prepared by Environmental Resources Management, Inc (ERM) for Arkema Inc Facility (Arkema). The Arkema site is located at 6400 NW Front Ave in Portland, Oregon and listed as Environmental Cleanup Site Information (ECSI) #398. The site is located along the Willamette River upland of the Rive Mile 7 West A (RM7Wa) remedial design project area within the Portland Harbor Superfund Site (PHSS).

EPA's comments are categorized as "Primary," which identify concerns that must be resolved to achieve the objective.

Primary Comments

1. **General Comment:** EPA understands the Arkema team's objective to have upland source control measures in-place and to have these controls prevent recontamination of the in-water design. EPA maintains that front-end evaluations of how the upland constructed remedies (e.g., interim remedial action measures [IRAMs]) will change the current groundwater flow regime and contaminant reduction is important and can be conducted in the near term (i.e., prior to IRAM construction) and during IRAM construction to inform the designs (i.e., uplands and in-water), as appropriate. To clarify, **EPA is not asking for, nor does it want the IRAM construction to be delayed.** EPA also does not believe the upland IRAM construction completion should delay the completion of the in-water design.

EPA's comments are not exhaustive and defer the comprehensiveness of this evaluation work to the Arkema uplands and in-water teams as these teams have the institutional site knowledge to develop the information needs for both designs (i.e. uplands and in-water) and to address risks and uncertainties between the designs such that they will be compatible and perform as intended.

2. **Specific Comment:** The Arkema upland design team should prepare a hydrogeologic assessment as an appendix to the FDR or incorporate the evaluations below into a future upland deliverable to inform the IRAM design. EPA believes the following evaluations will provide a basis for comparison when evaluating performance post construction and inform adaptative management approaches. The hydrogeologic evaluation should include:

    a. Evaluating pre and post in-situ solidification/stabilization (ISS) groundwater effects expected from the installation of the impermeable monolith.

    b. Estimated reduction of groundwater contaminant flux post IRAM 1 construction for all pertinent contaminants of concern (COCs) to the in-water design.

    c. Estimated water table conditions/elevations after the ISS is constructed, including an evaluation of high-water level season conditions, based on historical groundwater monitoring.

    d. Expected changes post ISS to groundwater flow directions (both horizontal and vertical) with a focus on sub-flow under the barrier wall and increased flow into different areas of subsurface conditions with lower, or higher hydraulic conductivity.

    e. Evaluations of existing GWET system capture post ISS construction, including a focused evaluation to determine if the GWET will still maintain effective capture objectives post ISS construction.

    f. What corrective action conditions will apply if the ISS causes impacts. For example, if excessive groundwater mounding occurs that causes localized flooding conditions or impacts to other adjacent remedial activities.

3. **Specific Comment:** Similar to hydrogeologic considerations, geotechnical and infrastructure needs and compatibility should be considered for IRAM 1 and future IRAMs as part of the FDR or future upland deliverable. EPA understands that the in-water design is considering a transload facility in the uplands. These requirements should be assessed for compatibility with the IRAM infrastructure design and geotechnical requirements and acknowledged by the uplands team, including any potential conflicts that may include the proposed rail track zone or the sediment storage area for the transload in relation to conditions following IRAM 1 excavation and treatment.

cc: David Lacey, DEQ
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