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Mohsen Kourehdar
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Re: Comments on USG Interiors Puyallup Site Agreed Order (AO), Remedial Investigation (RI), Feasibility Study (FS), Cleanup Action Plan (CAP), SEPA Checklist, and SEPA Determination of Non-Significance (DNS)

Dear Mr. Kourehdar,

Thank you for providing the opportunity to review and comment on the USG Interiors Puyallup Site AO, RI, FS, CAP, SEPA Checklist, and SEPA DNS.

Citizens for a Healthy Bay (CHB) is a 28-year-old organization whose mission is to represent and engage people in the cleanup, restoration, and protection of Commencement Bay, its surrounding waters and natural habitat. We are a 501(c)3 nonprofit providing practical, solutions-based environmental leadership in the Puget Sound area. We work side-by-side with residents, businesses, and government to prevent and mitigate pollution and to make our community healthier and more vibrant. We have paid close attention to USG (formerly US Gypsum) since our founding and have provided technical comments on their Highway 99 and Taylor Way cleanup sites.

Staff and expert members of CHB's Policy and Technical Advisory Committee have reviewed the AO, RI, FS, CAP, SEPA Checklist, and SEPA DNS and related regulations. Our comments are outlined below.

Background

The proposed cleanup would address contamination left at the USG Puyallup site from a cleanup carried out in 1984 and 1985. USG used this site to manufacture rock wool, an insulating material, using raw waste materials from the Tacoma ASARCO copper smelter. ASARCO slag waste, baghouse dust, and "shot" was used as fill material on-site for grading. A 2006 site assessment concluded that soil and groundwater at the site had arsenic concentrations higher than the Model Toxics Control Act (MTCA) threshold, leading to the preparation and submittal of the RI, FS, and CAP. CHB has concerns about the proposed cleanup remedy, similar to those expressed for the USG Highway 99 cleanup.

Agreed Order and Remedial Investigation

The RI as documented is incomplete and fails to meet the minimum requirements of Agreed Order 5489 in which USG agreed to investigate the nature and extent of contamination on site. The likely contaminants at this site, base on other sites containing ASARCO slag, include arsenic, iron, calcium, and potentially significant concentrations of aluminum, antimony, barium, copper, lead, manganese, molybdenum, tin, titanium, and zinc, among other metals. While the RI documents show that USG did investigate the nature and extent of arsenic contamination, there is no evidence present to show that the nature and extent of other likely contaminants were investigated. There is also no evidence in the RI to show that the nature and extent of baghouse dust or "shot" contamination was investigated. Many of these contaminants are regulated by MTCA, and without an appropriate RI, there is no way to know if the site is in violation of MTCA standards, beyond arsenic contamination. ***Consequently, CHB requests that the investigation into the nature and extent of contamination at the site include the aforementioned contaminants.***

In the response to our comments regarding the USG Highway 99 cleanup, Ecology concluded that additional analytes, including antimony, cadmium, chromium, copper, lead, nickel, and zinc would be included in sampling for hot-spot delineation, and that other metals would likely become bound and demobilized as a result of the remedy (which is very similar to the selected remedy for this site).[1] ***CHB requests that these contaminants, at a minimum, be included in all pre-, interim-, and post-cleanup sampling plans.***

CHB commends Ecology for taking the initiative to require USG to draft an Inadvertent and Unanticipated Discovery Plan, should cultural or archaeological resources be discovered during cleanup.

Cleanup Action Plan

CHB does not support the selection of Alternative 2a for the cleanup of this site. Alternative 2a is the cheap, easy solution, but does not adequately address the dangerous contamination left in the ground, and its potential to end up in the Puyallup River. Alternative 2a leaves 30% of the contaminated sediment in the ground, untreated and not-stabilized. Soil stabilization as outlined in the CAP, can cause other metals to leach out of the soil[1]. ***If Alternative 2a is chosen, CHB requests that a full metals suite be performed on groundwater and at the groundwater-surface water interface, yearly for 5 years, to account for this leaching of contaminants from non-treated material.*** Additionally, TCLP (Toxicity Characteristic Leaching Procedure) standards should not be used for this testing, as these standards use a landfill environment for their model, not on-site conditions that have been subject to in situ stabilization. ***CHB recommends the use of MWEP (Monofilled Waste Extraction Procedure) using site-specific conditions as the testing standard for leached contaminants on site,*** as outlined in Ecology's 2003 report to the legislature on appropriate testing standards for leached contaminants.[2]

Ecology's rationale that the arsenic contamination below the water table under the Puyallup River does not pose a risk rests on the assumption that, "current geochemical conditions can be maintained."[2] It is widely accepted that riverbed geomorphology is highly dynamic, and that the site is located in an area highly susceptible to seismic activity. ***CHB requests Ecology provide evidence to support their assumption that current geochemical conditions can be maintained, and under what timeframe.***

The selected remedy should be based on the ultimate destination of the contaminated groundwater. According to the CAP, "the Puyallup River is a gaining stream, meaning groundwater from the site discharges to the river."[3] Because contaminated groundwater will make its way to the river channel, ***CHB requests that the selected remedy be protective of aquatic life and meet fish consumption standards, drinking water standards, and/or Puyallup Tribal water quality standards, whichever is the most protective.***

CHB supports the selection of Alternative 3 for the cleanup of this site, because it is the most protective, over both the short- and long-term. Ecology's conclusion that this alternative is not favorable for short-term protection comes from the assumption that the extensive excavation and related shoring controls required are inherently risky. Shoring is an effective and safe engineering control, when correctly designed with safeguards and a backup plan, should there be a failure.

Public Participation

CHB requests more timely release of cleanup documents for public review and comment. The RI was published in 2011; the FS, 2013, and; the CAP, 2014, yet the public was only given notice of these documents' existence and their ability to comment on them in early 2019. The 35-day comment period was not adequate for reviewing the extensive technical information in these documents, totaling close to 800 pages.

Please contact me if there are questions regarding my comments. Thank you for the opportunity to provide feedback on the USG Puyallup Site AO, RI, FS, CAP, SEPA Checklist, and SEPA DNS.

Sincerely,

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1. Washington Department of Ecology. (2016). *Responsiveness Summary, USG HWY 99.* Author.
2. Washington Department of Ecology. (2003). *An Assessment of Laboratory Leaching Tests for Predicting the Impacts of Fill Material on Ground Water and Surface Water Quality. A Report to the Legislature.* Publication No. 03-09-107. Author.
3. Washington Department of Ecology. (2014) *Draft Cleanup Action Plan, USG Interiors Puyallup Site.* Author.