



STATE OF WASHINGTON
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August 22, 2018

Electronic Copy

Marine Trades Area (MTA) Group
c/o Tom Colligan, RG
Floyd | Snider
601 Union Street, Suite 600
Seattle, WA 98101

Re: May 14, 2018 Memorandum Re: MTA Group's Response to Ecology's Comments on the MTA Site Draft Cleanup Action Plan

Dear MTA Group:

Thank you for your memorandum summarizing the MTA Group's understanding of the key issues and proposed resolution discussed during the April 11, 2018, Draft Cleanup Action Plan (DCAP) meeting. The Department of Ecology (Ecology) will approve the proposed resolution of the key DCAP issues presented in the memorandum with the following changes:

1. **Agreed Order Signatories.** Ecology issued a potentially liable person (PLP) notice letter to Chevron Environmental Management Company (CEMC) on May 16, 2018. By letter dated June 20, 2018, CEMC accepted PLP status. The DCAP will be revised to clarify those participating in the cleanup.
2. **Groundwater benzene cleanup level.** Ecology understands the revised benzene cleanup level for groundwater represents a significant decrease from the preliminary cleanup level presented in the Remedial Investigation/Feasibility Study (RI/FS) report. However, Washington Administrative Code (WAC) 173-340-730 (3)(b) requires surface water cleanup levels under MTCA Method B be at least as stringent as all applicable state and federal laws, including all water quality standards for surface waters of the state of Washington in WAC 173-201A.
3. **Conditional point of compliance monitoring.** Ecology agrees that additional investigation will help Ecology and the MTA group agree on the conditional point of compliance for groundwater. Ecology will expect your draft work plan, aimed at

evaluation of the transitional zone as a conditional point of compliance for groundwater, within 30 days of receipt of these comments.

4. **Upgradient groundwater and soil compliance monitoring.** Ecology understands that the MTA Group is altering the goals of the preferred remedy to focus on containment of the upgradient soil contaminated areas rather than natural attenuation. The DCAP should be revised to clarify that exposure pathways for subsurface soil will be addressed through the presence *and maintenance* of the existing surfaces and through institutional controls, including a soil management plan.

Ecology can agree to removing the cleanup objective for the Upgradient Cleanup Area of monitoring to confirm natural attenuation of contaminants in soil and replacing the requirement that soil be sampled every 5 years, with a requirement that soil be sampled, if necessary, to demonstrate compliance so that the Site can be de-listed or to modify institutional controls for preventing exposure to soil.

However, we do not agree with removing the requirement for groundwater monitoring. WAC 173-340-410 (3) states “Long-term monitoring shall be required if on-site disposal, isolation, or containment is the selected cleanup action for a site or a portion of a site. Such measures shall be required until residual hazardous substance concentrations no longer exceed site cleanup levels established under WAC 173-340-700 through 173-340-760.” This means that compliance monitoring must continue until cleanup levels are met in all media.

At a minimum Ecology requires groundwater monitoring at the point of compliance wells and at a select network of wells throughout the site, including Pettit Oil, so that Ecology can monitor and track the contaminated groundwater plume over time. The draft language regarding frequency of sampling for groundwater monitoring in Section 5.2.3 of the DCAP still applies.

5. **Pettit Oil.** The comment proposed two changes to the DCAP:
 - 1) **Developing numeric criteria in the Engineering Design Report to define “soil containing residual NAPL,” for soil performance monitoring during excavation.** This change essentially proposes defining a remediation level in the engineering design report at the residual saturation concentration (WAC 173-340-747) to define the extent of soil to be excavated during Phases 1 and 2. Ecology agrees with this proposal; however, Ecology encourages the use of the default residual saturation values (WAC 173-340-900 Table 747-5) included in MTCA.

Ecology does not approve the use of lab-based centrifuge methods, such as ASTM D425-88, primarily due to the fact that this method does not adequately account for preferential pathways and/or heterogeneous soils. If CEMC chooses to proceed with analytical testing, this site-specific data will only be acceptable as part of a weight of evidence evaluation along with all other data from the site. Ecology reserves the right to evaluate the evidence presented and determine if the analytical results are reasonable when compared with site-specific data.

- 2) **Clarifying the scope of the compliance monitoring program for the Former Pettit Oil Cleanup Area based on the cleanup objective of removal of diesel LNAPL.** Ecology agrees with clarifying the scope of compliance monitoring. The compliance monitoring for the Former Pettit Oil Cleanup Area should be sufficient to confirm that LNAPL is no longer present and should include select monitoring wells as part of the site confirmational monitoring network, outlined in Response 4 above, so that Ecology can monitor and track the contaminated groundwater plume over time. The draft language regarding frequency of sampling for groundwater monitoring in Section 5.2.3 of the DCAP still applies.
6. **New groundwater constituents of concern.** Ecology agrees to removing toluene, ethylbenzene, and xylene constituents from the list of groundwater constituents of concern based on the analysis of groundwater data presenting in the 2008 Remedial Investigation.
7. **Soil Vapor Extraction.** Ecology agrees with the proposed revision with one modification. The SVE blower may be shut down or operating intermittently if soil vapor concentrations fall below *and remain below* a threshold concentration that indicates volatile organic chemicals (VOCs) in vapor or ambient air are below levels of concern. The threshold concentration and monitoring schedule can be proposed in the engineering design report.
8. **Contingency actions.** Ecology is agreeable to MTA Group proposing, for inclusion in the DCAP, a timeframe and criteria for confirming the effectiveness of the air sparge curtain and identifying any deficiencies that would potentially trigger the need to evaluate possible contingency actions. Elimination of the currently specified contingency action of a subsurface cutoff barrier is also acceptable if an explanation of how the potential contingency action will be determined is included (such “If it is determined that contingency actions are needed, the MTA Group will submit a memo evaluating various contingency actions and recommending a preferred action for Ecology review and approval”).

9. **Recent shoreline data and impervious cap.** Comment noted. The DCAP should include a summary of the recent data collected during the stormwater vault construction along with an explanation of any changes this data makes to the conceptual site model and a statement as to why the selected remedy is still appropriate.

Based on this memo, the next step includes the submittal of a conditional point of compliance work plan for Ecology review and approval within 30 days of receipt of this response. This work plan will assess whether the transitional zone is suitable for assessing compliance with cleanup levels, the approximate attenuation, if any, of constituents of concern from shoreline monitoring wells, and whether there is evidence of contaminant transport by preferential pathways along the shoreline that would adversely affect the long-term monitoring program.

Please submit, with the draft work plan, a proposed schedule for completing the fieldwork, submitting and evaluating the results, and revising the DCAP based on the work plan results and the additional revisions mentioned above.

If you have any questions about this letter, please contact me at (360) 407-6254 or connie.groven@ecy.wa.gov

Sincerely,



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Ecology Site File