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STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

Southwest Region Office  
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July 12, 2022

James P. Kiernan, P.E.  
Operations Lead – West  
Chevron Environmental Management and Real Estate Company  
6001 Bollinger Canyon Road, Room C2102  
San Ramon, CA 94583  
[jkiernan@chevron.com](mailto:jkiernan@chevron.com)

**Re: Comments on Draft Cleanup Action Plan**

- **Site Name:** Cowlitz Food & Fuel (Also known as Former Texaco Service No. 211556)
- **Site Address:** 101 Mulford Rd, Toledo, Lewis County, WA 98591
- **Agreed Order:** DE 5236
- **Facility/Site No.:** 1166
- **Cleanup Site ID No.:** 7025

Dear James P. Kiernan:

Thank you for submitting the Draft Cleanup Action Plan (DCAP) for Washington State Department of Ecology (Ecology) review.<sup>1</sup> Please revise the DCAP to incorporate the following comments and then resubmit for our review within 30 days of the date of this letter:

1. Please remove the Arcadis logo and “Chevron Environmental Management Company (CEMC) from the cover page because the CAP will be a document issued by Ecology. Please also remove the signature page that follows the cover page and the “arcadis.com” footer.
2. Section 1, Introduction, 1<sup>st</sup> paragraph: Please remove the reference to CEMC, Texaco Downstream Properties (TDPI), and Arcadis U.S., Inc. (Arcadis) as the author/preparer so that it is clear that this is an Ecology-issued document. We suggest that you begin this section with the statement that the purpose of this DCAP is to summarize the cleanup action proposed by Ecology for the Site in accordance with Washington Administrative Code (WAC) 173-340-380(1)(a). We also suggest that you state in this paragraph that the DCAP was prepared pursuant to Agreed Order DE 5236.

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<sup>1</sup> Arcadis, *Chevron Environmental Management Company, Draft Cleanup Action Plan, Cowlitz Food & Fuel, 101 Mulford Road, Toledo, Washington, December 17, 2021.*

3. Applicable State and Federal Laws: Please add a discussion of applicable state and federal laws for the cleanup action, as required by WAC 173-340-380(1)(a)(vii).
4. Section 3.4, Soil Cleanup Levels and Points of Compliance, 2<sup>nd</sup> paragraph, last sentence: The sentence states that only diesel range organics (DRO) has a MTCA Method A Cleanup Level that must be revised to meet the more stringent cleanup level shown in Table 749-2. However, as shown in the Section 3.6 text table, lead (220 milligrams per kilogram, mg/kg) also requires a cleanup level below the Method A value (250 mg/kg). Please revise the text accordingly.
5. Section 3.6, Summary of Proposed Cleanup Standards, text table:
  - a. Please format the document so that the table appears on one page only and is not split between two pages.
  - b. Toxics Cleanup Program Implementation Memorandum #4 (IM-4)<sup>2</sup> discuss how to determine compliance with MTCA Method A Cleanup Levels for diesel and heavy oil. As stated in IM-4, it is a common practice for laboratories to report separate diesel and heavy oil concentrations for the same soil (or water) sample when using the NWTPH-Dx laboratory method. This is done without using the NWTPH-HCID (hydrocarbon identification) or pre-screening the samples to determine the type of petroleum product present.

Because the Method A values were derived using the entire range of total petroleum hydrocarbon (TPH) fractions present in each type of product, splitting the test results is an incorrect use of the Method A TPH Cleanup Levels (Ecology, 2016).<sup>3</sup> Rather, the sample diesel and oil fractions should be added together and compared against either the diesel or heavy oil Method A Cleanup Level. Please add a footnote to the table that indicates that comparison to the DRO and heavy oil range organics (HRO) Cleanup Standards shown in the table should be done according to IM-4.
6. Section 5, Cleanup Action: Please add to this section a brief summary of the other cleanup alternatives (besides the selected alternative) that were evaluated in the feasibility study, as required by WAC 173-340-380(1)(a)(iii).

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<sup>2</sup> Ecology, 2004, *Determining Compliance with Method A Cleanup Levels for Diesel and Heavy Oil*. Toxics Cleanup Program Implementation Memorandum #4, June 17, Document no. 04-09-086. Available at: <https://apps.ecology.wa.gov/publications/SummaryPages/0409086.html>

<sup>3</sup> Ecology, 2016, *Guidance for Remediation of Petroleum Contaminated Sites*. Toxics Cleanup Program Implementation Memorandum Publication No. 10-09-057, June. Available at: <https://apps.ecology.wa.gov/publications/SummaryPages/1009057.html>

- 7. Section 5, Cleanup Action, 2<sup>nd</sup> Bullet and Section 5.2, Institutional Engineering Controls:**  
More details are needed regarding the specific institutional controls that will be included in the cleanup.<sup>4</sup> The above-referenced sections only mention capping with asphalt or concrete and restrictions to limit the use of the property. Please revise these sections to include a discussion of the following institutional controls:
- a.** Environmental Covenants (ECs) on each of the parcels and any rights-of-way that will contain soil or groundwater concentrations following the excavation.
  - b.** General and specific use restrictions that will be included in the ECs. These restrictions shall include use only as commercial property, containment of contaminated soil under a cap, limitation on the placement of stormwater facilities, and groundwater use.
  - c.** Monitoring requirements: A cap monitoring plan will be needed along with a groundwater monitoring plan. The cap monitoring plan needs to also include contingency planning, in the event that contaminated soil becomes exposed. Reporting on the cap condition should be conducted every five years and/or if any changes are observed in the condition of the cap. An initial inspection with photographs and description of the cap to be monitored should be included with the plan.
  - d.** Maintenance requirements for engineered controls such as the inspection and repair of monitoring wells and caps.
  - e.** Rights-of-way: If contamination is proposed to be left in rights-of-way exceeding cleanup standards, a subordination agreement with the right-of-way holder would be required for implementing an environmental covenant.
  - f.** Financial Assurance Requirements: WAC 173-340-440(11) requires financial assurance to cover costs associated with operations and maintenance of the remedy, including institutional controls. Please contact our Financial Assurance Officer, Joanna Richards, at [joanna.richards@ecy.wa.gov](mailto:joanna.richards@ecy.wa.gov) or (360) 485-5992 for direction on evaluating financial assurance requirements.
- 8.** Thank you for providing us with additional Environmental Information Management (EIM) data submittals in response to our June 24, 2021, letter.<sup>5</sup> Please continue to provide Ecology with regular EIM data submittals for each groundwater monitoring event.

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<sup>4</sup> WAC 173-340-440 Institutional Controls

<sup>5</sup> Ecology, *Comments on Draft Feasibility Study Report*, letter addressed to Timothy L. Bishop, CEMC, June 24, 2021.

Please send an electronic word-processing-compatible format to Ecology for review after the above revisions have been made. If you have any questions about this letter, please contact me at (360) 890-0059 or [steve.teel@ecy.wa.gov](mailto:steve.teel@ecy.wa.gov).

Sincerely,



Steve Teel, LHG  
Cleanup Project Manager/Hydrogeologist  
Toxics Cleanup Program  
Southwest Region Office

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