



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
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September 10, 2018

**Electronic Copy**

Mr. Paul E. Kalina, P.E.  
Senior Project Manager  
AECOM  
111 Third Avenue, STE 1600  
Seattle, WA 98101

**Re: Ecology Comments on the *Final Interim Action Work Plan, In Situ Solidification, B36 Area, Area B, and Area D, Tacoma Metals Site*, dated November 17, 2017, prepared by AECOM.**

- **Site Name:** Former Tacoma Metals
- **Site Address:** 1919 Portland Avenue, Tacoma, Pierce County, WA 98421-2804
- **Draft Agreed Order:** DE13740
- **Facility/Site No.** 1257
- **Cleanup Site ID No.** 3910

Dear Mr. Kalina:

Thank you for submitting the above-referenced Interim Action Work Plan (IAWP) for our review in response to our September 19, 2017, comment letter. We appreciate your work in incorporating a substantial number of our comments. Although this version is significantly improved over the previous draft, there are still some revisions that need to be made. Please revise the IAWP to incorporate the following comments and then resubmit for our review within 45 days of the date of this letter. Please provide paper and electronic copies plus a separate redline/strikeout electronic copy so that revisions are shown.

1. Remove "Final" from the title because the document cannot be considered final until after the public comment period has been held to ensure that no public comments are received that necessitate changes to the plan.
2. Sections 2.2 and 5.1: Previous comment #1a was not addressed. Please explain why the shallow soils containing metals and polychlorinated biphenyls (PCBs) could not be included in the solidification treatment and/or explain or demonstrate why it is disproportionate to do so as opposed to temporary storage in staging piles and then subsequent disposal off-site.

3. Section 5.3.1, page 5-6: Change the Agreed Order subsection reference from “F” to “P.”
4. Section 7, page 7-1: Add “Petroleum” before “Contaminated Sites” in the 2016c Ecology guidance document reference citation.
5. Table 3.1:
  - a. The table needs to include both the Interim Action Cleanup Levels (IACULs) and the Interim Action Remediation Levels (IARLs). Therefore, please add the IARLs column to Table 3-1. Two separate IARL columns are needed, one for paved areas and one for unpaved areas, because the terrestrial ecological pathway is complete for unpaved areas.
  - b. IACULs for soil also need to be protective of the soil-to-groundwater/surface water pathway. Since existing soil concentrations of naphthalene and benzene, toluene, ethylbenzene, and total xylenes (BTEX) appear to be impacting groundwater (see previous comment #8b), IACULs also need to be protective of groundwater. IARLs also need to take protection of groundwater into consideration. The IACULs in Table 3-1 for naphthalene, BTEX, and metals need to be lowered to ensure protection of groundwater and should match the soil Cleanup Levels (CULs) in the 2018 RI/FS Report. It is recommended that a column be added to the table that shows the soil values that are protective of groundwater.
  - c. As stated in comment 27e of Ecology’s April 25, 2018, letter to Mr. Loren Dunn, the benzo(a)pyrene (BaP)/carcinogenic polycyclic aromatic hydrocarbons (cPAHs) Remediation Levels of 12 mg/kg for depths of less than 6 feet below ground surface (bgs) and 18 mg/kg for depths from 6 to 15 feet bgs are considered to be sufficiently protective of groundwater.
  - d. In 2016, Ecology provided comments on the 2014 *Revised Augmented Remedial Investigation and Feasibility Report* that included Remediation Levels. These Remediation Levels are appropriate to use for paved areas at the Site because of the pavement’s effect of limiting leaching. However, unpaved areas need to have IARLs that are sufficient for protection of groundwater. Therefore, Table 3-1 needs to show the following IARLs for unpaved areas:
    - i. naphthalenes: 4.5 mg/kg
    - ii. benzene: 0.03 mg/kg
    - iii. toluene: 4.5 mg/kg
    - iv. ethylbenzene: 5.9 mg/kg
    - v. total xylenes: 14 mg/kg
6. Please incorporate previous comments #29a,b,c.

7. Revise Appendices D, E, and G to incorporate the increase in the treatment/remediation areas (previous comments #29a,b; and #31a) and any other comments that affect the cost estimates.
8. Appendix I, Sampling and Analysis Plan, Section 3: This section has text that discusses analyzing composite samples for BTEX, total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), PCBs, and metals. This section needs to be revised so it is consistent with the main text Section 6.3.4. Appendix I, Section 3 is also not consistent with the Standard Operating Procedure (SOP) for soil sampling. This SOP says to not mix or stir samples for volatile organic compound (VOC) analysis. Ecology also does not agree with the use of composite samples for import fill testing. Please revise to indicate that discrete samples shall be used for import fill testing.
9. Table I-2: Please revise this table to incorporate Ecology's comments above regarding discrete samples for import fill testing.
10. Table J-1: Please revise this table so that the interim action cleanup levels match the cleanup levels shown in the June 22, 2018, RI/FS.
11. Appendix K, Section 4.2.1, Import Soil Materials Sampling: Add that Ecology shall be consulted before soil is imported from a site with recognized environmental conditions. Ecology will review information from the site to see if it is acceptable for import and/or if the sample frequency needs to be increased beyond the requirements in Table 6.9 from Ecology's *Guidance for Remediation of Petroleum Contaminated Sites* (2016).

If you have any questions, please contact me at (360) 407-6247 or [steve.teel@ecy.wa.gov](mailto:steve.teel@ecy.wa.gov) or Nick Acklam at (360) 407-6913 or t [nicholas.acklam@ecy.wa.gov](mailto:nicholas.acklam@ecy.wa.gov).

Sincerely,



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

By certified mail: 9489 0090 0027 6021 5083 61

cc : Phil Slowiak, Senior Project Manager, EHS, International Paper Company (via email)  
Brian Heim, International Paper Company (via email)

Elton Parker, International Paper Company (via email)

Peter S. Bannister, Aspect Consulting (via email)

John Cermak, Jr., Baker Hostetler (via email)

Loren R. Dunn, Beveridge & Diamond PC (via email)

Mary Henley, City of Tacoma Environmental Services Department (via email)

Mark Meyers, Attorney for General Metals (via email)

Bill Hengemihle, Managing Director, LECG, LLC (via email)

Brenda Anderson, CHMM, Schnitzer Steel Industries (via email)

Clark Davis, Attorney for Tacoma Metals (via email)

John Level, Attorney General's Office (via email)

Rod Rennie, Dept. of Natural Resources (via email)

Rich Scrivner, Dept. of Natural Resources (via email)

Rebecca Lawson, Ecology (via email)

Nick Acklam, Ecology (via email)

Ecology Site File



January 22, 2019

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