



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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July 25, 2017

Mr. De Len B. Holbrook
Vice President HSE & Facilities
PNEC Corporation d.b.a. SC Fuels
1800 West Katella Avenue, Suite 400
Orange, CA 92867

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

- **Site Name:** Tosco Bainbridge Island Bulk Plant 1784
- **Address:** Weaver Ave & Shepard Way NW, Bainbridge Island, WA 98110
- **Cleanup Site ID No.:** 3690
- **Facility/Site ID No.:** 26595127
- **VCP Project No.:** NW3070

Dear Mr. De Len B. Holbrook:

Thank you for submitting documents regarding your remedial action for the Tosco Bainbridge Island Bulk Plant 1784 (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Total petroleum hydrocarbons in the gasoline, diesel and oil ranges (TPH-G, TPH-D and TPH-O) to the soil and ground water.
- Toluene, ethylbenzene and xylenes to the soil.
- TPH-G, TPH-D and TPH-O to the ground water.
- Benzene, toluene, ethylbenzene and xylenes (BTEX) to the ground water.
- Polycyclic aromatic hydrocarbons (PAHs) to the ground water.



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Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology has reviewed the following information regarding the Site:

1. Terracon Consultants, Inc., *Site Remedial Action and Monitoring Summary Report*, November 18, 2016.
2. Terracon Consultants, Inc., *Groundwater Monitoring Report: February 2016*, April 14, 2016.
3. Terracon Consultants, Inc., *Remedial Treatment Report: January 2015*, April 2, 2015.
4. Terracon Consultants, Inc., *Groundwater Monitoring Report: April and July 2015*, August 21, 2015.
5. Terracon Consultants, Inc., *Groundwater Monitoring Report: August 2014*, September 30, 2014.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at 425.649.7235 or sending an e-mail to nwro_public_request@ecy.wa.gov.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the releases at the Site, Ecology has determined:**

- In working toward a Site No Further Action determination complete Site characterization is a necessary prerequisite for determining appropriate cleanup standards and for determining the adequacy of cleanup actions. The Site is defined by the full extent of contamination which likely extends beyond the Property boundary. The southern Property boundary extends south into Eagle Harbor. In addition, Weaver Creek runs

along the west side of the Property. Until the extent of Site contamination is determined, it is unknown if cleanup levels protective of surface water and sediment are necessary.

- In the case where ground water monitoring wells are also used as remediation wells, more than four quarters of monitoring may be necessary to demonstrate that post-remediation rebound has not occurred.
- Although EPH/VPH analysis results may be used to establish a MTCA Method B cleanup level for ground water that is protective of drinking water use, the TPH-Dx analytical method without silica gel cleanup must be used to demonstrate compliance. Ecology does not accept results from the use of silica gel cleanup for compliance ground water samples. A minimum of four consecutive quarters of ground water samples below MTCA Method A or B cleanup levels is needed to demonstrate compliance. In addition, it may be necessary to make additional adjustments to the cleanup level to account for potential surface water and sediment impacts.
- Exhibit 1 in the 2016 *Site Remedial Action and Monitoring Summary Report* should be redone so that the Site is in the center of the topographic map rather than at the very bottom edge of the page. This figure should show the entire parcel boundary (Property).
- Ecology recommends using different colors for the lithologies presented in the two cross sections (Exhibits 3 and 4). Ensure the cross sections accurately portray the slope of the sidewalls so that it is clear where and to what depth contaminated soil was removed.
- Additional discussion of the variation in historical ground water flow direction and how it may have impacted contaminant migration is needed. Historical ground water monitoring reports indicate that between 2004 and 2007 ground water flow was predominantly northeast until it became divergent (NW/SE) sometime in 2007, after which there was a 7 year gap in monitoring.
- According to the Rose diagram provided as Exhibit 5 in the 2016 *Site Remedial Action and Monitoring Summary Report*, the predominant ground water flow direction is to the south. TPH-G and TPH-D concentrations in ground water samples collected from boring location SB-7 were 32,300 and 104,000 micrograms per liter respectively. Post excavation ground water conditions were not assessed. A monitoring well down gradient of the detention pond excavation is recommended. In addition, the down and cross-gradient extent of contamination in ground water beyond MW-2A and MW-5 need to be delineated.
- Monitoring well MW-2A appears to be screened in excavation backfill and within the excavation boundaries. If that is the case, this well location is not representative of Site

ground water conditions and so cannot be used demonstrate compliance. Ecology recommends that a representative monitoring well be installed.

- Summary tables should include all compounds that have been detected in each media throughout the history of the Site, and the proposed cleanup level for each compound. All non-detectable results should be shown as “<” with the actual reporting limits, not as “ND” on tables. All sample locations in materials that have been subsequently removed from the Site during remedial excavations should be shown clearly on tables and figures as having been removed.
- Soil samples should be analyzed according to Table 830-1 of the MTCA regulation and Table 7.2, page 95, in the ***Guidance for the Remediation of Petroleum Contaminated Sites***, Ecology Publication No. 10-09-057, September 2011.
- Comprehensive figures are needed to illustrate where contamination was detected above cleanup levels, sampling locations relative to excavation (indicating if contaminated soil above cleanup levels was removed during excavation), excavation confirmation soil sample results and areas where contaminated soil is known to be left in place. Use dashed lines to represent where the extent of known contamination is estimated. Ecology requests the following additional figures be submitted (11” X 17” in size; in color):
 - A figure that includes all historic soil borings including hand augered boring locations included in the 2016 *Site Remedial Action and Monitoring Summary Report* Appendix D, Attachment 1 (HA-1 through HA-7 and SB-1 through SB-10), sample depths and concentrations for each petroleum range or detection limit if not detected should be submitted. Use colors to illustrate above/below cleanup levels.
 - A figure that includes all soil borings including hand augered locations so that it is clear where these locations are relative to the 2001 excavation boundaries. Use colors and/or symbols to indicate which of these sample locations were removed during excavation.
 - A figure illustrating the boundaries of the 2001 and 2003 excavations, sampling locations and results. The figure should illustrate why the additional 2003 excavation was needed (use sample points, depths and concentrations along the western edge of the 2001 excavation to indicate this) and where any soil above cleanup levels was left in place. Enlarge this area for the purpose of legibility and clarity.
 - At least one cross-section showing the excavation limits with confirmation soil sampling locations and analytical results should be provided.
 - Include the location of Weaver Creek on the Site diagram to illustrate the location of the creek relative to the Site.

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- The extent of soil and ground water contamination for this Site has not been determined. Therefore, it cannot be determined at this time if the simplified Terrestrial Ecological Evaluation process can be ended based on the Exposure Analysis, WAC 173-340-7492(2)(a) – the area of soil contamination being less than 350 square feet.
- Confirmed releases of TPH-D and TPH-O occurred in the detention pond. A sediment sample needs to be collected from the pond outfall pipe to assess current conditions.
- Information regarding the historic transport of petroleum products to and from the Property is needed. This Site's location on Eagle Harbor make it likely that fuel delivery was from the water side of the Property. Details regarding the facility infrastructure and adequate sampling is needed for complete Site assessment.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

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If you have any questions regarding this opinion, please contact me at 425.649.7097 or e-mail at diane.escobedo@ecy.wa.gov.

Sincerely,



Diane Escobedo
Site Manager
NWRO Toxics Cleanup Program

DE:

cc: Mike Noll, Terracon
Sonia Fernandez, VCP Coordinator, Ecology