



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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December 29, 2015

Mr. Richard J. Parks
White/Peterman Properties Inc.
1000 E. 80th Place, Suite 700N
Merrillville, IN 46410

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

- **Site Name:** Maaco Auto Painting Bodywork 9th Ave
- **Address:** 739 9th Avenue North, Seattle, WA 98109
- **Facility/Site No.:** 2224749
- **VCP No.:** NW2953
- **Cleanup Site ID:** 12571

Dear Mr. Parks:

Thank you for submitting documents regarding your proposed remedial action for the Maaco Auto Painting Bodywork 9th Ave facility (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:

- Gasoline-, diesel- and oil-range petroleum hydrocarbons (TPH-g, TPH-d and TPH-o) into the Soil
- TPH-g into the Ground Water
- Benzene, toluene, ethylbenzene and xylenes (BTEX) into the Soil
- Benzene, ethylbenzene and xylenes into the Ground Water
- Carcinogenic polyaromatic hydrocarbons (cPAHs) into the Soil
- Cadmium, lead and mercury into the Soil
- Naphthalene and 1-methylnaphthalene into the Soil
- Arsenic into the Ground Water
- Cis-1,2 dichloroethene, 1,2-dichloroethane and vinyl chloride into the Ground Water



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- Tetrachloroethene (PCE) and 1,4-dioxane into the soil vapor

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's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial action(s):

1. GeoEngineers, *Request for NFA-Likely Opinion Letter*, dated September 10, 2015.
2. GeoEngineers, *Conceptual Cleanup Action and Request for NFA-Likely Opinion Letter*, dated February 17, 2015.
3. GeoEngineers, *Phase II Environmental Site Assessment*, dated November 13, 2014.
4. GeoEngineers, *Phase I Environmental Site Assessment*, dated November 13, 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:**

- The proposed remediation/cleanup action plan includes injection of chemical oxidation compounds into the soil and ground water. Ecology does not have enough information at this time regarding the proposed injections to issue a Property specific No Further Action (NFA) Likely determination for this Site. In addition to evaluating a feasibility study and disproportionate cost analysis, Ecology would also need to evaluate the following details of the proposed remedial action prior to commenting on whether or not it would likely be sufficient to achieve cleanup of the Site:
 - Number and placement of injection locations and reasoning

- Depth or range of depth of injection locations
 - The type, estimated volume and concentration of oxidant used and how that will be determined
 - Mechanism of oxidant delivery and application frequency
 - Expected radius of influence of each injection location based on Site geology and hydrogeology
 - Estimated remediation timeframe based on estimated degradation rate
 - Performance monitoring plan during and post injections
- A cleanup action has not been proposed to address all contamination at depths greater than 15 feet below the ground surface (bgs) or ground water contamination on portions of the Property outside of the proposed injection area (for example, benzene- and arsenic-contaminated ground water detected in monitoring wells MW-2 and MW-3 respectively and vinyl chloride in both wells).
 - The source and transport of naphthalene in soil and ground water (if present) needs to be determined. If naphthalene contamination extends off-Property or is migrating onto the Property from off-Property, the cleanup action plan must include a remedy to address on-Property naphthalene in ground water and soil and a mechanism to prevent recontamination of the Property post-cleanup.
 - The source of PCE and 1,4-dioxane detected in soil vapor samples SV-5 and SV-6 needs to be determined. PCE was not detected in any of the soil samples collected at the Property to date supporting the conclusion that the likely source is the upgradient chlorinated solvent plume. However, although PCE degradation products were detected in ground water wells MW-2 and MW-3, ground water samples collected from MW-4 through MW-7 were not analyzed for chlorinated solvents. In addition, the water table was significantly depressed during nearby redevelopment dewatering activities and therefore the September 2014 event may not have been representative ground water samples. The extent of chlorinated solvent contamination on the Property in ground water needs to be determined and any proposed cleanup action plan for the Property needs to include remediation of all on-Property contamination and a mechanism to prevent recontamination of the Property post-cleanup.
 - It is likely contamination associated with the paint booth located along the eastern parcel line will be encountered. Ecology recommends assessing this area prior to redevelopment of the Property so that it can be included in the cleanup action plan is complete.

- Ecology does not agree that the ground water elevation map presented in Figure 9 of the September 2015 *Request for NFA-Likely Opinion Letter* is an accurate illustration of ground water flow and gradient. Ground water elevations measured at monitoring wells MW-6 and MW-7 are on the wrong side of the 18.5 foot elevation contour line. In addition, one ground water monitoring event is insufficient to determine the seasonal variation in flow direction and gradient. At this time, Ecology recommends quarterly ground water monitoring of all wells to establish baseline conditions for refining the Site conceptual model and developing a cleanup action plan for the Property. In addition to the impacts that seasonal fluctuations of the water table may have on contaminant concentrations, ground water samples collected during dewatering activities when the water table was lowered considerably below static levels and natural flow patterns were impacted are not considered to be representative of Site conditions.
- Ground water sampling that includes all monitoring wells (MW-1 through MW-7 and MW-101 and MW-105) and analyses of all contaminants of concern is needed to further delineate the extent of ground water contamination on the Property and the migration of contaminants from off-Property. Metals and PAHs are detected in soil throughout the Property and up gradient of the Property but analyses for these contaminants was only conducted for ground water samples collected from two monitoring well locations in the southwest portion of the Property.
- Monitored natural attenuation has been proposed for remediation of the residual petroleum contamination related to the Roy Street Shops. Quarterly ground water monitoring and an analytical protocol that includes the collection of geochemical parameters (e.g., oxidation-reduction potential, dissolved oxygen, pH, nitrate, sulfate) is needed to further assess and characterize current groundwater chemistry inside and outside the plume(s) and determine if Site contaminant concentrations and groundwater flow direction and gradient are seasonally influenced. Event frequency and spacing is insufficient to conclude that the reduction of contaminant concentrations (or mass) is all or in part attributable to natural attenuation. Very little is known about contaminant migration during this time period and nothing is known about the capacity of the system for continued degradation of the contaminants. A minimum of four continuous quarters of ground water sampling data are needed to confirm and estimate the rate of natural attenuation occurring. The off-Property source area would need to be included in this evaluation since it will be a continual source post redevelopment.
- Soil and ground water contamination associated with this Site is known to be co-mingled with contamination of two other Sites. In order to obtain a Property specific NFA determination from Ecology a cleanup action must be proposed for all contamination within the Property boundaries and a mechanism for preventing recontamination of the Property from off-Property sources would need to be proposed and implemented.

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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.

If you have any questions regarding this opinion, please contact me at 425.649.7097 or e-mail at desc461@ecy.wa.gov.

Sincerely,



Diane Escobedo
Site Manager
NWRO Toxics Cleanup Program

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cc: David A. Cook, GeoEngineers, Inc.
Sonia Fernandez, VCP Coordinator, Ecology