



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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August 25, 2020

John Drake  
Washington Industries, Inc.  
17742 Talbot Road  
Edmonds, WA 98026  
[jd\\_drake@comcast.net](mailto:jd_drake@comcast.net)

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

- **Name:** Northwest Plating
- **Address:** 825 South Dakota Street, WA 98108
- **Facility/Site No.:** 2231
- **VCP No.:** NW2769
- **Cleanup Site ID No.:** 1361

Dear John Drake:

The Washington State Department of Ecology (Ecology) received your request for an opinion on the *Focused Feasibility Study and Cleanup Action Plan, Perine Property* dated December 19, 2020 prepared for the **Northwest Plating** facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. This opinion applies only to the Site described below.

**Description of the Site**

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The Site is defined by the nature and extent of contamination associated with the following releases:

- Volatile organic compounds (VOCs) including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC) in soil, ground water and air.
- Cadmium, hexavalent chromium, nickel and zinc in soil and ground water.
- Cyanide in soil and ground water.
- Methylene chloride in soil.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcels associated with this Site are affected by other sites.

A Site Hazard Assessment conducted in August 2019 ranked the Site as a '2' using the Washington Ranking Method in which a '1' represents the highest risk relative to all other Washington state sites and a '5' represents the lowest risk.

The Perine parcel at 812 and 820 South Adams Street in Seattle is the southern of two tax parcels comprising the Property where the Site has come to be located. The source of TCE in soil on the Perine parcel appears to be from a separate source than the Northwest Plating parcel to the north located at 825 South Adams Street. The source of TCE detected in ground water and soil gas on the Perine parcel may be related to releases associated with the Northwest Plating parcel. Ground water contaminated with TCE on both parcels formed a comingled plume. TCE concentrations in ground water on the Perine parcel have now decreased to below cleanup levels. However, current concentrations of TCE in soil on the Perine parcel have not been determined. This letter pertains only to the Perine parcel portion of the Property.

### **Basis for the Opinion**

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This opinion is based on the information contained in the following documents:

1. Environmental Partners Inc., 2019. *Focused Feasibility Study and Cleanup Action Plan - Perine Property - Former Northwest Plating Site, 812 and 820 South Adams, Seattle, Washington*. December 19.
2. Environmental Partners Inc., 2019. *Annual Groundwater Monitoring Report for 2018-2019, Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington*. July 17.
3. Environmental Partners Inc., 2018. *Annual Groundwater Monitoring Report for 2017-2018, Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington*. June 5.
4. Environmental Partners Inc., 2018. *Interim Action System As-Built and Startup Report, Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington*. April 17.
5. Environmental Partners Inc., 2017. *Annual Groundwater Monitoring Report for 2016-2017, Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington*. May 19.

6. Environmental Partners Inc., 2016. *Remedial Investigation Report, Former Northwest Plating Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington.* June 28.
7. Environmental Partners Inc., 2016. *Interim Action Work Plan, Former Northwest Plating Site, 825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington.* April 18.
8. Environmental Partners Inc., 2013. *Work Plan for Vapor Intrusion Mitigation System Installation, Washington Industries, Inc. and Perine Properties.* June 28.
9. Environmental Partners Inc., 2013. *Vapor Intrusion Assessment, Washington Industries Inc. and Perine Properties.* May 17.
10. HartCrowser, Inc., 2012. *Historical Site Cleanup Summary, Northwest Plating Site.* October 3.
11. Sound Earth Strategies, 2011. *Groundwater Quality Evaluation, Perine Property.* July 28.
12. SoundEarth Strategies, Inc., 2011. *Air Quality Evaluation, Perine Property.* July 28.
13. SoundEarth Strategies, Inc., 2011. *Phase II Subsurface Investigation, Perine Property.* June 7.
14. SoundEarth Strategies, 2011. *Phase I Environmental Site Assessment.* January 27.
15. Herrera Environmental Consultants, Inc., 1999. *Ground Water Quality Investigation.* May 21.
16. GeoEngineers, 1990. *Phase 2 Environmental Site Assessment, Northwest Plating Company.* June 20.
17. GeoEngineers, 1989. *Phase 1 Environmental Site Assessment, Northwest Plating Company.* May 5.

In addition to the above listed reports, Ecology previously issued written opinions for this Site in letters dated November 26, 2013 and June 18, 2018.

The above Site documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by completing a Request for Public Record form (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>) and emailing it to

PublicRecordsOfficer@ecy.wa.gov, or contacting the Public Records Officer at (360) 407-6040. A number of these documents are accessible in electronic form from the Site web page: <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1361>

This opinion is void if any of the information contained in those documents is materially false or misleading.

## Opinion

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Based on a review of the *Focused Feasibility Study and Cleanup Action Plan, Perine Property* (FFS/CAP) dated December 19, 2019 and other Site documents, Ecology has determined:

- Ecology's opinion letter dated June 18, 2018 contained comments on the Remedial Investigation (RI) that have not been addressed or incorporated in the FFS/CAP. The comments below do not repeat or identify Ecology's previous comments that were not addressed however in some cases, a previous comment from the June 18, 2018 opinion letter may be referenced. In addition, new comments pertaining to the RI and the FFS/CAP are provided herein. It is important to resolve and incorporate all of Ecology's previous comments in future work on this Site.
- A 2011 Phase II Environmental Site Assessment conducted on the Perine parcel included 3 soil borings (P01 through P03) to assess soil and ground water quality adjacent to a 1,000 gasoline underground storage tank (UST) that was closed in place at the time in the northeast corner of the Perine parcel. Soil samples collected from the borings contained no detectable petroleum hydrocarbons or BTEX. However, ground water samples collected from the 3 borings were only analyzed for BTEX not TPH-G. This decision was based on field screening and the fact that the UST was not in contact with the water table at the time of the investigation. Therefore, ground water in the northeast corner of the Perine parcel remains uncharacterized for TPH-G.
- An area of TCE impacts to shallow soil on the Perine parcel is not contiguous with TCE detected on the Northwest Plating parcel. Ecology agrees that the distribution of TCE on the Perine parcel appears to indicate a separate release than the Northwest Plating operation. However, TCE detected in soil on the Perine parcel is most likely not related to a former machine shop as concluded in the RI and repeated in the FFS/CAP. A 1967 Sanborn fire insurance map in the 2011 Phase I Environmental Site Assessment indicates that a former machine shop was located in the southwest corner of the parcel and not near any of the TCE detections in soil in the northern portion of the parcel. The southwest corner of the parcel where the former machine shop was located has not been characterized. The historical and current use of chlorinated solvents including TCE for fastener manufacturing by the John Perine and Perine Danforth Companies on the parcel needs to be researched and documented.

- The RI and FFS/CAP state that the occurrence of TCE in ground water on the Perine parcel is due to degradation of PCE from the Northwest Plating parcel. The distribution of PCE in soil and ground water on the Perine parcel is restricted to the northern edge of the Perine parcel so is likely attributable to PCE on the Northwest Plating parcel. However, the distribution of TCE in soil and ground water on the Perine parcel are both larger in area and extend further south than the PCE and so are both likely related to the same TCE source which may or may not be attributable to the Northwest Plating parcel.
- Whatever the source(s) of PCE and TCE in soil on the Perine parcel, both contaminants remain in soil at unknown levels. The FFS/CAP states (first bullet; page 4) that SVE and ERD conducted on the Northwest Plating parcel have ‘effectively decreased contaminant concentrations in soil’ on the Perine parcel however no confirmation soil borings have been conducted to substantiate that conclusion. Soil boring data is needed to confirm reductions in concentrations in soil to below cleanup levels.
- The fourth full paragraph on page 5 of the FFS/CAP mentions ‘remediating ground water on the Perine Property’ which is misleading as no ground water remediation was performed on the Perine parcel. No calculations of the radius of influence of the SVE system on the Northwest Plating parcel were provided. Lower concentrations of TCE in ground water on the cross-gradient Perine parcel may also be due to advection and natural attenuation.
- Similarly, in the same paragraph, the notion that SVE conducted on the Northwest Plating parcel ‘fully mitigated the VI exposure pathway on the Perine property’ without soil confirmation data is not valid.
- The Site is covered with a building and pavement and ground water levels are for the most part below the depths of contamination encountered in soil. An empirical demonstration for concluding that there is no soil contamination above cleanup levels remaining is not feasible as the leaching pathway is incomplete or very limited.
- Soil gas and indoor air on the Perine parcel should be sampled again to obtain current data and determine the current potential for residual vapor intrusion into the building following the SVE and ERD remediation on the Northwest Plating parcel to the north.
- The FFS/CAP needs to also address any other contaminants of concern that have been detected above cleanup levels on the Perine parcel.
- The Site does not qualify for an exclusion from conducting a terrestrial ecological evaluation (TEE) based on surface cover by asphalt, concrete and buildings unless an institutional control is required by Ecology and that has not yet been determined. If the lack of surrounding contiguous undeveloped land exclusion is to be used, please provide

a current aerial photograph showing a 500-foot boundary around the Site with the total area of any contiguous undeveloped land within the boundary calculated. See also the comment on Section 5.0; 11<sup>th</sup> bullet on page 6 of the June 18, 2018 opinion letter.

- Section 1.5, Conceptual Site Model states (page 7) that the Perine property is hydraulically upgradient of the Northwest Plating property and thus not impacted. However, that conclusion is not evidenced in ground water elevation contour maps included in the most recent (2018-2019) ground water monitoring report. The ground water contour maps indicate that in both water-bearing zones, the Perine property is cross-gradient to the Northwest Plating property except in the northwest corner of the parcel, where it is most likely downgradient.
- As stated in an opinion letter dated June 18, 2018, Ecology agreed that the Site meets the MTCA definition of an industrial property (WAC 173-340-200). The letter also stated that the use of Method C cleanup levels on the Site would require that an Environmental Covenant be placed on the Property. If the Site extends onto other properties, the owners of such properties would need to agree that covenants be placed on their properties. The letter states that Remediation Levels are not typically used for VCP sites and their use at this Site would likely require public comment which is not done for sites in the VCP.
- The FFS/CAP features institutional controls as a separate cleanup alternative (Alternative 3) which was then selected as the recommended remedial alternative. As per WAC 173-340-360 (2)(E)(iii), cleanup actions should not rely primarily on institutional controls and monitoring where it is technically feasible to implement a more permanent cleanup action for all or a portion of the site. Further, as per WAC 173-340-440(1), institutional controls are measures undertaken to limit or prohibit activities that may interfere with the integrity of an interim action or cleanup action or that may result in exposure to hazardous substances at a site. Please remove consideration of institutional controls as a remedial alternative for the Perine parcel.

## **Limitations of the Opinion**

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### **1. Opinion does not settle liability with the state.**

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

**2. Opinion does not constitute a determination of substantial equivalence.**

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

**3. State is immune from liability.**

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

**Contact Information**

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Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion, please contact me at (425) 649-7064 or [heather.vick@ecy.wa.gov](mailto:heather.vick@ecy.wa.gov).

Sincerely,



Heather Vick, LHg  
Toxics Cleanup Program, NWRO

cc: Thomas Morin, TRC ([tmorin@trccompanies.com](mailto:tmorin@trccompanies.com))