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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Southwest Region Office
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June 21, 2023

David J. Guild
David J. Guild Investment Properties
21400 SE Tillstrom Rd
Damascus, OR 97089
6dguild@comcast.com

Re: Further Action at the following Site:

- **Site Name:** Commercial Radiator Service
- **Site Address:** 11408 NE Rosewood Ave, Vancouver, Clark County, WA 98662
- **Facility/Site ID:** 98665473
- **Cleanup Site ID:** 3622
- **VCP Project ID:** SW1749

Dear David J. Guild:

On March 27, 2023, the Washington State Department of Ecology (Ecology) received your request for an opinion (RFO) regarding the sufficiency of your independent cleanup of the Commercial Radiator Service (Site). We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.[1]

Issue Presented and Opinion

Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, chapter 70A.305 RCW, and its implementing regulations, Washington Administrative Code (WAC) chapter 173-340 (collectively "substantive requirements of MTCA").[2] The analysis is provided below.

[1] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305
[2] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Total Petroleum Hydrocarbons and Metals into the soil.

A parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

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

1. 3 Kings Environmental, Inc., *Subsurface Investigation and Closure Report at the Industrial Property located at 11406-11408 NE Rosewood Avenue in Vancouver, Clark County, Washington*, April 14, 2023.
2. Ecology, *Further Action at the Following Site: Commercial Radiator Service*, August 11, 2022.
3. 3 Kings Environmental, Inc., *Surface Soil Cleanup Report at the Industrial Property located at 11406-11408 NE Rosewood Avenue in Vancouver, Clark County, Washington*, March 2, 2022.
4. Ecology, *Further Action at the Following Site: Commercial Radiator Service*, October 6, 2021.
5. Silva Environmental Consulting & Assessment, Inc. (SECA), [Completed] *Voluntary Cleanup Program (VCP) application*, May 13, 2021.
6. K & S Environmental, Inc. (K &S), *Soil Sampling Report*, letter, addressed to SECA, December 10, 2020.
7. SECA, [Untitled and Incomplete Phase I Environmental Site Assessment], (undated).
8. Ecology, *Site Hazard Assessment*, July 1998.
9. Ecology, *Initial Investigation Field Report*, September 29, 1997.

You can request these documents by filing a records request.[3] For help making a request, contact the Public Records Officer[4] or call 360-407-6040. Before making a request, check whether the documents are available on Ecology's Cleanup Site Search webpage.[5]

This opinion is void if the information within these documents is materially false or misleading.

Analysis of the Cleanup

Thank you for conducting further investigation and remedial excavation of the gravel area along the southeastern property boundary east of Unit L as well as the failing septic tank area that was reportedly suspected as existing north of the western on-Site building at 11406 SE Rosewood Avenue. Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

In October 1996, an initial investigation field visit was completed as a result of complaints that an operating automotive and farm equipment radiator repair shop was flushing radiators and associated chemicals directly to the asphalt, which drained across the pavement to the soil. A reddish stain was observed that extended from the east end of the parking lot to the exposed soil area. On November 8, 1996, soil samples were collected near the fence at the east side of the property. Total petroleum hydrocarbons as diesel/oil (TPH-D/O) and metals were detected at concentrations exceeding MTCA Method A cleanup screening levels.

In November 2020, K&S conducted a Phase II (PII) Environmental Site Assessment (ESA). The PII ESA confirmed the presence of TPH-D/O and metals in subsurface soils at depths between one and five feet below ground surface (bgs); although not all soil samples were further quantified for diesel/oil despite detections under the hydrocarbon identification (HCID) scan.

In addition, while the corresponding laboratory analytical data indicated concentrations of hazardous substances were above the Method A cleanup screening levels, no carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were analyzed to further evaluate cleanup of the site based on those more conservative levels.

Further investigative and remedial activities conducted by 3 Kings in 2021 and 2022 did not

[3] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[4] publicrecordsofficer@ecy.wa.gov
[5] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=3622

involve confirmatory analysis for cPAH in soil. Analysis of cPAH is required by WAC 173-340-900 in Tables 830-1 and 7.2 under the waste/unknown oil column in Ecology Publication No. 10-09-57, *Guidance for Remediation of Petroleum Contaminated Sites*,[6] revised June 2016.

Ecology Comments:

Soil:

Septic Tank Area (STA)

The ground-penetrating radar (GPR)/magnetometer survey conducted on Septemeber 12, 2022, identified an area of disturbed soil that likely corresponds to an excavated area associated with the former STA. Further, soil boring within the identified disturbed soil area and sample analytical results for total petroleum hydrocarbons (TPH) as gasoline (G), diesel (D), heavy oil (O), and volatile organic compounds (VOC) indicated said analytes as occurring below the laboratory method reporting limits (MRL). Based on these combined results, Ecology concurs that removal of the septic tank likely occurred at some time in the past and that no residual soil comtamination is evident at the selected soil boring locations.

11408 Rosewood Suite L Soil Area

Thank you for investigating the suspected flow path of fluids from the suspected release point at Building L to the former southeasterly soil area as requested in Ecology's October 6, 2021, opinion letter.[7] While Ecology concurs with the boring alignment, detections of TPH should have been analyzed for cPAH as requested and were not. As a result, please collect additional soil samples in those borehole locations that exhibit TPH and analyze for cPAH. In addition, please also collect soil samples from depths of 5 feet below ground surface (bgs) at the former K&S boring locations B-5 and B-6 which exhibited TPH at concentrations of 453 milligram per kilogram mg/Kg) and 475 mg/Kg for cPAH analysis. Further, when planning additional remedial investigation activities, please ensure to define the extents of contamination in accordance with WAC 173-340-200[8] and WAC 173-340-350.[9]

In addition, please correlate the borings illustrated on Figure 3 with the borings and excavated area in Figure 4 of the 3 Kings Surface Soil Cleanup Report.[10] Based on the report, the excavation appears to have been conducted north of K&S boring B-6 which exhibited oil-range

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[6] https://apps.ecology.wa.gov/publications/SummaryPages/1009057.html
[7] Ecology, Further Action at the Following Site: Commercial Radiator Service, October 6, 2021. Soil.
[8] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-200
[9] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-350
[10] 3 Kings; Surface Soil Cleanup Report-Industrial Property-11406-11408 NE Rosewood Ave, Vancouver, WA; March 3, 2022.

hydrocarbons at 1,330 milligrams per kilogram (mg/kg). Yet, with the exception of boring B-5, even lesser TPH concentrations appeared to have been excavated further north near boring B-4. This should be illustrated on a separate figure that clearly illustrates these relationships. Ecology suggests plotting all sample locations on a single figure with sample identifiers listed with different symbology for each phase of sampling. Symbol colors should be used to designate confirmation samples versus investigative or performance samples. This should be documented in a data table correlating all samples with the associated analytical results.

Groundwater:

Of the analytes including TPH-G/D/O, VOC, and RCRA 8 metals, only total arsenic exceeded the MTCA Method A Cleanup Level and regionally accepted background. However, the groundwater results from DP-1-W (Unit L) and DP-4-W (former Septic Area) were very consistent in concentrations (15.9 and 18.6 micrograms per liter) across the site, especially so given no arsenic sources were known to be associated with the former septic tank area. Beyond the fact that the site is located within a wellhead protection zone with a 1-year wellhead travel time, Ecology considers arsenic at the site is most likely due to sample turbidity and that deeper soil data suggest that a release did not extend to groundwater.

For future reference and especially when collecting sediment-laden groundwater grab samples from direct-push borings, it is advisable to collect and analyze both total and dissolved groundwater samples. Comparision of total and dissolved metals data greatly assists with interpreting exceedances of total metals above the respective cleanup levels that may be due to weathering of metal-rich lithologies, assigning aqueous speciation and mineral satuation indices, and evaluating whether exceedances are due to chemical versus physical hydrogeological processes.

Terrestrial Ecological Evaluation. Ecology generally concurs with the conclusions of the TEE. However, the TEE should be updated based on the soil cPAH results as mentioned above. For assistance in evaluating the terrestrial ecological pathway, please see Ecology's Terrestrial Ecological Evaluations webpage.[11]

Administrative:

Method Reporting Limits. Please include MRLs or MRL ranges in all tables and on all figures that summarize data.

Boring Logs. Please submit boring logs that have been completed with a boring log software program. The boring logs attached to this report are handwritten, faded, and cannot be read in

[11] https://ecology.wa.gov/Regulations-Permits/Guidance-technical- assistance/Terrestrial-ecological-evaluation

their entirety.

EIM. Please resolve the data issues as identified by Molly Ware, Ecology EIM Data Coordinator, in her email to consultant 3 Kinks on April 5, 2022. Please upload all current data as soon as possible. Ecology will not close this Site until all EIM data is uploaded and validated.

Establishment of Cleanup Standards.

Ecology has determined the cleanup levels and points of compliance for the existing analytes you established for the Site meet the substantive requirements of MTCA. However, until cPAHs are analyzed for soil, additional cleanup levels and POCs may be required.

Cleanup Standards: Under MTCA, cleanup standards consist of three primary components; points of compliance,[12] cleanup levels,[13] and applicable state and federal laws.[14]

a. Points of Compliance. Points of compliance, that you need to propose, are the specific locations at the Site where cleanup levels must be attained. For clarity, Ecology provides the following table of standard points of compliance:

Media	Points of Compliance
Soil-Direct Contact	Based on human exposure via direct contact, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. *WAC 173-340-740 (6)(d)*
Soil-Protection of Groundwater	Based on the protection of groundwater, the standard point of compliance is throughout the Site. *WAC 173-340-747*
Soil-Protection of Plants, Animals, and Soil Biota	Based on ecological protection, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. *WAC 173-340-7490(4)(b)*
Groundwater	Based on the protection of groundwater quality, the standard point of compliance is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site. *WAC 173-340-720(8)(b)*

b. Cleanup Levels. Cleanup levels are the concentrations of a hazardous substance in soil, water, air, or sediment that are determined to be protective of human health and the environment. At this Site, MTCA Method A unrestricted cleanup screening levels were used to evaluate petroleum and metals contamination detected and suspected at the Site. It is assumed that MTCA Method A cleanup levels will likely be appropriate for subsequent cPAH analyses relative to the completion of the remedial investigation.

[12] WAC 173-340-200 "Point of Compliance."
[13] WAC 173-340-200 "Cleanup level."
[14] WAC 173-340-200 "Applicable state and federal laws," WAC 173-340-700(3)(c).

c. Applicable Laws and Regulations. In addition to establishing minimum requirements for cleanup standards, applicable local, state, and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710.[15] An online tool[16] is currently available to help you evaluate the local requirements that may be necessary.

All cleanup actions conducted under MTCA shall comply with applicable state and federal laws.[17] The person conducting a cleanup action shall identify all applicable local, state, and federal laws. The department shall make the final interpretation on whether these requirements have been correctly identified and are legally applicable or relevant and appropriate.[18]

There are three general groups of applicable local, state, and federal laws that need to be included:

i. **Chemical-Specific:** Examples of chemical-specific laws include promulgated concentrations from another rule that result in adjusting proposed cleanup levels. Method A is inclusive of these laws. For Methods B or C, additional evaluation of chemical-specific applicable state and federal laws is required.

ii. **Action-Specific:** Examples of action-specific laws include requirements for obtaining local permits to excavate and/or dispose of contaminated soil, stormwater construction permits, or the requirement to notify local law enforcement in case human remains are discovered during excavation. All MTCA cleanups require evaluation of action-specific applicable state and federal laws.

iii. **Location-Specific:** Examples of location-specific laws include specific requirements for working near wetlands or archeologically important areas. All MTCA cleanups require evaluation of location-specific applicable state and federal laws.

After you have identified appropriate applicable local, state, and federal laws, report to Ecology the applicable local, state, and federal laws applicable to this cleanup, and how those laws and regulations specifically effect the proposed cleanup.

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[15] https://apps.leg.wa.gov/wac/default.aspx?cite=173-340-710
[16] https://apps.oria.wa.gov/opas/index.asp
[17] WAC 173-340-710(1)
[18] WAC 173-340-710(2) Note – MTCA Method A includes ARARs and concentration-based tables (WAC 173-340-700(5)(a)) If MTCA Method A remains in use as proposed Site cleanup levels, identify non-concentration based technical and procedural requirements. If Method B or C cleanup levels are proposed, also include concentration-based requirements.

Selection of Cleanup Action.

Ecology has determined that additional remedial investigation cPAH analysis for residual petroleum-impacted soil) is necessary at the Site before selecting a cleanup action.

Limitations of the Opinion

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 70A.305.040(4).

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 70A.305.080(8) and WAC 173-340-545.

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 70A.305.170(6).

Contact Information

Thank you for choosing to clean up the Site under the 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 Voluntary Cleanup Program webpage. If you have any questions about this opinion, please contact me at 360-489-5347 or joe.hunt@ecy.wa.gov.

Sincerely,

Joseph B. Hunt, LHG
Toxics Cleanup Program
Southwest Region Office

JBH/js

cc by email: Brett MacDonald, 3 Kings Environmental, Inc., bmacdonald@3kingsinc.com
Jerome Lambiotte, Ecology, jerome.lambiotte@ecy.wa.gov
Ecology Site File