



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 28, 2015

Ms. Lauren Ross
Kilroy Realty
12200 West Olympic Boulevard, Suite 200
Los Angeles, CA 90064

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

- **Name:** Lake View at Fremont
- **Site Address:** 837 North 34th Street, Seattle, WA 98103
- **Facility/Site No.:** 5471899
- **VCP No.:** NW2977
- **Cleanup Site ID:** 11902

Dear Ms. Ross:

Thank you for submitting documents regarding your proposed remedial action for the **Lake View at Fremont** 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 release at the Site:

- Total petroleum hydrocarbons in the diesel and oil ranges (TPH-D, TPH-O) into soil
- Pentachlorophenol into ground water

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



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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:

1. AEI Consultants, *Subsurface Investigation*, dated September 26, 2014.
2. Associated Earth Sciences, Inc., *Independent Remedial Action Report*, dated July 7, 2008.

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) 649-235 or by sending an e-mail to nwro_public_request@ecy.wa.gov.

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

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 release(s) at the Site, Ecology has determined:**

- All relevant reports must be submitted to Ecology. The *Phase I Environmental Site Assessment* report (AEI Consultants, April 2012) referenced in the *Subsurface Investigation* report (AEI Consultants, September 2012) needs to be submitted. Additional detail and discussion of historic use and potential sources of contamination needs to be provided. For example, the Property was occupied by a lumberyard for nearly 40 years. Additional sampling may be necessary for contaminants associated with the chemical treatment of wood. Known or suspected activities and processes related to the early use by the Magnesium Asbestos Supply Company and Pacific Iron and Steel Works that may have contributed to contamination at the Property should be included in the assessment report. If attainable, additional detail regarding the placement of spoils from the dredging and construction of the Ship Canal should be included.
- Petroleum contamination in soil at concentrations exceeding MTCA Method A cleanup levels was discovered in 2007 at locations TP-205 and ES48 at an elevation of approximately eight feet above mean sea level (amsl). This contaminated soil was reportedly left in place during redevelopment excavation activities. Soil borings SB-1 through SB-6 appear to have been drilled and sampled to assess the previous exceedances at these two locations. The data gaps that SB-1 through SB-6 were intended to address

should be described in the Subsurface Investigation report. In addition, all remaining identified soil or ground water contamination should similarly be addressed in the report, and appropriately investigated.

- Because the vertical reference point provided for previous soil samples was in elevation amsl, elevations need to be provided for the 2014 samples so that an accurate comparison of the depth and location of current and historical data can be made. Therefore, a survey of boring locations SB-2 through SB-5 is needed. In addition, it is unclear how historic sample locations were determined. The report text, tables, and figures should clearly illustrate the location horizontally and vertically of the historic and current samples, so Ecology can determine if the 2014 samples are adequate as soil confirmation samples.
- All figures submitted for review must be legible. The font on the figure provided in the Subsurface Investigation (SI) report dated September 26, 2014, is too small to read clearly. Given the reduced size of the figure and the larger 2014 boring location symbols it cannot be determined what the distance is between previous and recent boring locations. This information must be provided and depicted in a legible figure.
- Flow direction needs to be established and ground water samples need to be collected as close as possible to the down gradient edge of identified contamination to demonstrate that ground water is adequately characterized and the identified soil contamination has not impacted ground water. No ground water samples have been collected from the presumed down gradient direction of boring location TP-211.
- Pentachlorophenol (PCP) was previously detected in dewatering wells W-2 and W-5 at concentrations exceeding MTCA Method B cleanup levels. Monitoring wells need to be installed to delineate the extent of ground water impacts.
- A Terrestrial Ecological Evaluation (TEE) is required to determine if cleanup levels that are protective of terrestrial species are applicable to the Site. If it is determined that the Site qualifies for an exclusion from conducting a TEE, your decision-making process must be documented as per WAC 173-340-7490. A TEE process interactive user's guide can be found at: <http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm>

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.**

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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 by email at desc461@ecy.wa.gov.

Sincerely,



Diane Escobedo
Site Manager
Toxics Cleanup Program

Enclosure: Site Description

cc: Bryan Campbell, AEI Consultants
Sonia Fernandez, VCP Coordinator, Ecology

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined by the release of total petroleum hydrocarbons in the diesel and oil ranges to soil (TPH-d and TPH-o) associated with fill material. The Site is located at 837 North 34th Street in Seattle, WA (Property).

Area and Property Description: The Property corresponds to King County parcel number 197320-0389 which is 1.79 acres in size. The Property is occupied by one multi-tenant commercial office building with a sub-grade parking garage identified as the Lakeview Building. The Lakeview Building was constructed in 2008. The Property is bounded by North 34th Street to the north, the Plaza building and Fremont Avenue to the west, Aurora Avenue North/State Route 99 (elevated bridge), commercial buildings and a marina to the east and the Adobe Waterfront building to the south. Land use surrounding the Site consists of commercial businesses.

Property History and Current Use: In the early 1900s, the Property was submerged under Lake Union. Fill materials consisting of spoils from dredging and construction of the Lake Washington Ship Canal were reportedly placed on the Property to raise it above lake level. From 1905 to 1918, the Property was occupied by the Magnesium Asbestos Supply Company and Pacific Iron and Steel Works. From approximately 1919 to 1957, a lumberyard occupied the Property. Between the 1950s and 1990s, the Property was part of a larger commercial/industrial office park including a general store and warehouses for plumbing supplies and roofing materials.

The Property redevelopment included excavating soil to a depth of 20 to 30 feet below ground surface (bgs) for construction of the three-level parking garage that underlies the majority of the building. The southern portion of the Property is underlain by only one story of underground parking. Currently the bottom three floors of the Lakeview building are used for parking and the top three are used for office space.

Contaminant Source and History: TPH-d- and TPH-o-contaminated soil associated with fill material was left in place under the southeast corner of the parking garage during the 2008 redevelopment. Creosote piles were also left in place at the southwest corner of the building and central 1/3, near the fill/native contact.

Physiographic Setting: The Property is located within the Puget Lowland physiographic province, a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains to the west. The Property is at an elevation between approximately 20 to 38 feet above mean sea level and slopes to the south.

Surface Water: The Lake Union Ship Canal is located approximately 325 feet south of the Property.

Ecological Setting: The Property is covered with a building. Land surrounding the Site is primarily covered with buildings, asphalt and concrete with small landscaped areas.

Geology: The southern two thirds of the building is directly underlain by up to 40 feet of historic fill which reportedly consists of sand, silt and gravel intermixed with clay, concrete rubble, cobbles, sawdust and wood. Fill material was removed from the northern third of the 2007 redevelopment excavation. Native soil directly underlies the northern portion of the building and typically consists of stiff to hard silt and dense to very dense sand and gravel.

Ground Water: Based on topography and subsurface investigations, the direction of ground water flow on the Site is inferred to be to the south toward the Lake Union Ship Canal. Perched ground water occurs at depth of approximately 4 to 10 feet bgs in the loose fill material.

Water Supply: Seattle Public Utilities (SPU) provides drinking water to this building. The Cedar River Watershed and the South Fork Tolt River Watershed in eastern King County are the two sources for potable water supplied by SPU.

Release and Extent of Soil Contamination: TPH-d and TPH-o soil contamination above MTCA Method A cleanup levels was left in place in 2008 beneath the southeastern corner of the building. TPH-d and TPH-o concentrations in soil sample ES48 at 8.25 feet amsl were 63,000 mg/kg and 46,000 mg/kg respectively. The TPH-o concentration in test pit TP205 was 10,000 mg/kg in a soil sample collected at an elevation of 9.5-10.5 feet amsl and 18,000 mg/kg at an elevation of 8 feet amsl. The bottom of the excavation for the building was terminated at approximately 9 feet amsl. Subgrade soil below the lower level of the concrete parking slab in the south half of the site were left in place. Therefore, the contamination identified at an elevation of 9.5-10.5 feet amsl was removed but contamination at 8-8.25 feet amsl is still in place and the vertical and lateral extent of that contamination was not defined.

Creosote piles were also left in place at the southwest corner of the building and central 1/3, near the fill/native contact.

Pentachlorophenol (PCP) was previously detected in dewatering wells located within the proposed boundaries of the Lakeview Building. The November 28 PCP concentrations in samples collected from wells W-2 and W-5 (1.26 and 1.20 micrograms per liter ($\mu\text{g/l}$) respectively) and the December 26 concentrations (1.20 and 0.67 $\mu\text{g/l}$ respectively) exceeded the MTCA Method B cleanup level of 0.219 $\mu\text{g/l}$. The results were presented in *Groundwater Analytical Results from December 26, 2000, Sampling Event Proposed Lakeview Building* (The IT Group, January 2001). W-2 and W-5 were located along the southern and eastern edges of the Lakeview Building respectively. The source of PCP has not been identified.