

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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January 26, 2016

Mr. Thomas Lee Madison Development Group 2513 6th Street LLC 10510 Northup Way Suite 120 Kirkland, WA 98033

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

- Site Name: Gateway Center
- Address: 2525 6th Street, Bremerton, WA 98312
- Facility/Site No.: 94828632
- VCP No.: NW3003
- Cleanup Site ID No.: 12850

Dear Mr. Lee:

Thank you for submitting documents regarding your proposed remedial action for the Gateway Center (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:

- Tetrachloroethene (PCE) and trichloroethene (TCE) into soil
- PCE, benzene, toluene, ethylbenzene and xylenes into ground water
- PCE and benzene into air

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 remedial actions:

- 1. Farallon Consulting, L.L.C., Remedial Investigation Report, July 27, 2015.
- 2. CDM Smith, Phase I Environmental Site Assessment, December 31, 2015.

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: <u>nwro_public_request@ecy.wa.gov.</u>

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.IOSD RCW and Chapter 173-340 WAC, for characterizing and addressing the releases at the Site, Ecology has determined:

- The PCE concentration exceeded the MTCA Method A cleanup level in only one soil sample at approximately two feet below ground surface (bgs). However, ground water, which is at depths of approximately 12 to 13 feet bgs, has been contaminated as a result of release(s) beneath the building. Very little degradation seems to have occurred based on minimal detections of PCE degradation products. Based on the lack of detections of PCE by-products, it is likely that additional soil contamination exists that has not yet been identified. It is unknown where the dry cleaning machine(s) were located, how many were present, how long the machines were in operation, where the former floor drains were located and what the disposal practices were at the time PCE was being used at the Property. Therefore, additional sampling is needed to complete Site characterization and ensure that the selected cleanup action is not leaving behind contamination that could continue to impact ground water and air on the Site.
- The Phase I Environmental Site Assessment indicated that the former boiler room and storage area were located in the southwestern comer of the laundromat facility. PCE was

likely stored in or near the storage area (and it should be noted that floor drains are commonly located in the boiler room of dry cleaning facilities). The contamination identified with soil, ground water and air data collected to date appears to be consistent with a release in the storage/boiler room area. These features (boiler room/storage area) should be illustrated on a Site plan along with Site boring and monitoring well locations. In addition, the location of the dry cleaning facility within the building (a line indicating where the dividing wall was located), restrooms, entrance/exits, catch basins, sanitary sewer lines and any other known utilities should be illustrated on a Site plan. Soil borings should be placed as needed to assess these additional potential areas of solvent release.

- If a sufficient quantity of PCE was released, there is a potential that the solvent moved downward vertically until reaching a confining °layer. Although silt layers encountered likely affected contaminant mi_{gr} ation, the data collected to date is not sufficient to determine the continuity of the silt layer and the extent to which it inhibited vertical migration. It is known however that contamination mi_{gr} ated downward at least to the uppermost depth of the aquifer. A soil sample should be collected in the release area to characterize the release below the water table at the interface of the water column and the top of the confining unit. Elevated concentrations of PCE in dissolved $_{gr}$ ound water have the potential to stratify, causing the denser PCE plume to settle deeper in the aquifer and therefore wells screened to straddle the water table may not capture the entire plume. Additional wells screened deeper should be installed to confirm the presence or absence of area $_{gr}$ ound water contamination at depth.
- The release of PCE to ground water needs to be fully characterized. Ground water in the source area beneath the building has not been adequately assessed. Additional monitoring wells are needed immediately down gradient of PCB-contaminated ground water identified at boring locations FB-6 and MW-3. According to Figure 3 of the RI report, monitoring MW-7D is approximately 10 feet upgradient of these locations. Although PCE concentrations detected in monitoring wells MW-1, MW-2 and MW-8 indicated that the plume is not moving off-Property, the plume beneath the building needs to be characterized prior to selecting a cleanup action.
- Ecology a_{g r}ees that future ground water monitoring events should include BTEX analysis. Benzene in ground water exceeded the MTCA Method A cleanup level at the Site. A minimum of four consecutive quarters of _{g r}ound water sampling in which benzene is below the cleanup level are needed to demonstrate compliance.
- Chloroform has historically been used as a spot remover at dry cleaning facilities. Ecology would consider this a contaminant of concern for this Site and therefore needs to be characterized and remediated.

- Water quality data collected during ground water sampling events should be included in a table in future ground water monitoring reports.
- The modified Method B soil gas screening levels calculated for PCE, TCE and BTEX based on a commercial exposure scenario are appropriate for assessing protectiveness for the current use (commercial). However, exposure parameters that are primarily a function of the exposed population characteristics shall not be modified when calculating cleanup levels except when necessary to establish a more stringent cleanup level (173-340-708 (10)(b). MTCA does not recognize land uses other than umestricted and industrial (for example, commercial) except to be used as a basis for an alternate reasonable maximum exposure scenario for the purpose of assessing the protectiveness of a remedy (WAC 173-340-708 (3) (ii)). Therefore, using the modified Method B screening level as a cleanup level is not appropriate. The cleanup level for air must be based on a residential scenario. PCE and benzene concentrations in soil gas samples collected in December 2014 exceeded the MTCA Method B screening levels based on a residential land use scenario. The selected cleanup action must take into consideration that MTCA Method B umestricted (residential) air cleanup levels are the appropriate cleanup levels for this Site and that contaminant concentrations in soil and ground water must be remediated to below the applicable MTCA Method B screening levels or further vapor assessment will be necessary.
- Ecology agrees that this Site appears to qualify for terrestrial ecological evaluation exclusion based on the lack of contiguous undeveloped land on or within 500 feet of the Site (WAC 173-340-7491). A figure illustrating the 500 foot radius around the Site should be submitted to complete the documentation of the exclusion
- Under Washington State law (Chapters 18.43 and 18.220 RCW), all hydrogeological and engineering work must be conducted by, or under supervision of a licensed geologist, hydrogeologist or professional engineer qualified to conduct the work. Any Site investigation/cleanup document containing geologic or engineering work must be signed and submitted under the seal of an appropriately licensed professional.

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 by email at diane.escobedo@ecy.wa.gov.

Sincerely,

Diane Escobedo Site Manager Toxics Cleanup Program

Enclosure: A - Description and Diagram of the Site

cc: Clifford Schmitt, Farallon Consulting Sonia Fernandez, 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.

<u>Site:</u> The Site is defined by the release of tetrachloroethylene (PCE) to soil, ground water and air and trichloroethene (TCE), dichlorodifluoromethane, chloroform, total petroleum hydrocarbons in the gasoline range (TPH-g) to ground water associated with the operation of a dry cleaning facility. The Site is also defined by the release of benzene, toluene, ethylbenzene, and xylenes (BTEX) to ground water and air. The Site is located at 2513 6th Street in Bremerton, WA (Property).

<u>Area and Property Description</u>: The Property corresponds to Kitsap County parcel number 142401-3-061-2001 which is 2.95 acres in size. The Property is occupied_by one single story masonry commercial building. The Property is bounded by residential homes and Bryan Avenue to the east, 6th Street, an automotive repair facility and retail stores to the north, North Montgomery Avenue, a furniture store and an auto body shop to the west and a gas station to the south. Land use surrounding the Site includes commercial businesses and residential homes.

Property History and Current Use: The earliest known development of the Property was sometime between 1914 and 1928, when a small dwelling was located on the western edge of the Property. The Property was redeveloped with construction of the current building in 1960. The building, which is located on the south-central portion of the Property, is currently partially occupied. A self-service coin-operated laundromat and dry cleaning facility (Norge Village) operated in the eastern portion of the building from 1965 to sometime between 1999 and 2001. Smaller retail spaces in the eastern portion of the building was historically occupied by a shoe store, dollar store and coffee shops. The main portion of the building was historically occupied by a grocery store, a child care center, offices and a classroom. Currently, the western and central portions of the building are used as office and/or commercial/retail space. Eastern tenant spaces are currently vacant. A portion of the parking lot is currently used as a park-and-ride facility by Kitsap Transit.

<u>Contaminant Source and History:</u> No direct evidence of dry cleaning operations was found during the February 2014 Phase I Environmental Site Assessment. However, Norge Laundry and Cleaning Village was a common name for businesses that used Norge coin-operated dry cleaning machines beginning in 1962. These types of machines used PCE as the dry cleaning solvent. The July 2015 Remedial Investigation Report confirmed a release of PCE to the subsurface had occurred in the eastern portion of the building where the former Norge Village laundromat had operated. Chloroform detected in ground water in MW-7D may result from the use of spot removal cleaners, a common practice associated with the dry cleaning operations. A service station was formerly located at the north adjacent property and is likely the source of TPH-g and BTEX detected on the Property.

Physiographic Setting: The Property is at an elevation of approximately 30 feet above mean sea level. The Property slopes gently to the southwest with the exception of the eastern and north eastern boundaries where retaining walls were constructed to shore up the adjacent hillside, which 1s approximately 15 feet higher than the Property. In the surrounding area, the land slopes downward

toward the Property from hills to the west, north and east and then slopes down to the south toward Sinclair Inlet. The Property is located in the Puget Sound Lowland physiographic province, which consists of a broad, low-lying region between the Cascade Range to the east and the Olympic Mountains to the west.

Surface/Storm Water System: The nearest surface water to the Site is Sinclair Inlet, which is located approximately 0.7 mile to the south. Stormwater is collected in catch basins located in the paved parking lot at the front of the building.

Ecological Setting: The Property is located in a mixed-use commercial and residential area; the land is primarily covered with paved surfaces and buildings.

Geology: Approximately one to nine feet of fill material comprised of silty sand with varying amounts of gravel was typically encountered and was underlain by layers of sandy silt and silty sand. The Site is underlain by a tongue of glacial outwash that extends in the north-south direction through the central portion of the Site, with glacial till at the eastern and western edges.

<u>Ground Water</u>: Ground water is encountered at the Site in the glacial outwash deposits at depth ranging from 12.16 to 15.65 feet below ground surface (bgs). Ground water flow is to the west with a gradient of 0.013 feet per foot.

<u>Water Supply:</u> Drinking water for the City of Bremerton is supplied by a combination of surface water from the Union River and 13 ground water wells in the Bremerton vicinity. Two drinking water wells are located within a mile of the Site on Puget Sound Naval Shipyard property (approximately 0.5 to 0.7 mile south and southeast of the Site). The wells are screened at depths greater than 577 feet below the ground surface (bgs).

Release and Extent of Soil and Ground Water Contamination: The former laundromat was located in the eastern portion of the building. It is unknown where any of the dry cleaning machines were located or solvents were stored. The greatest concentrations of PCE in soil, ground water and sub-slab vapor samples (0.98 milligrams per kilogram, 8.4 micrograms per liter and 940 micrograms per cubic meter respectively) were identified in the southern portion of the eastern wing of the building. No PCE degradation products were detected in soil samples with the exception of sample location FB-7 where TCE was detected at a concentration below the MTCA Method A cleanup level. TCE and dichlorodifluoromethane were detected in ground water at concentrations below the respective MTCA Method A and B cleanup levels. Chloroform was detected in the ground water at a concentration exceeding the MTCA Method B cleanup level at location MW-7:0. The benzene concentration in a reconnaissance ground water sample collected from the eastern portion of the building exceeded the MTCA Method A cleanup level and TPH-g was detected in all reconnaissance ground water samples collected in all reconnaissance ground water samples. TPH-O was detected in soil at the northern Property boundary soil at a concentration below the MTCA Method A cleanup level.



Washington quah I Bellingham I Seattle	FIGURE 4
Oregon Portland Bend	SOIL SAMPLE RESULTS 2513 6TH STREET BREMERTON WASHINGTON
kland Sacramento Irvine	BREMERTON, WASHINGTON
tions I faranonconsulting.com	FARALLON PN: 510-002
Checked By: BJ	Date: 6/26/2015 Disk Reference: 510-002_00

Drawn By: DEW