



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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VEHICLES AND FACILITIES
DEPARTMENT

March 26, 2013

Ms. Hilary Hamilton
City of Seattle
PO Box 94689
Seattle, WA 98124

Re: No Further Action at the Following Site

- Site Name: **Seattle Fire Station 6**
- Site Address: 101 23rd Avenue South, Seattle, WA
- Facility/Site Number: 8629113
- VCP Project Number: NW2615
- ISIS Cleanup Number: 10851

Dear Ms. Hamilton:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the **Seattle Fire Station 6** 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.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no 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 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

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 releases:



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- Diesel-range petroleum hydrocarbons as TPH-D into the soil.

Note: On December 9, 1999, one 500 gallon underground storage tank (UST) was removed from the Property. The UST was installed in 1964 and was used for refueling of the fire equipment. The UST was located close to the drive way ramp. Minor soil contamination was confirmed, but further excavation was not conducted as further exploration would have potentially disrupted response operations.

Enclosure A and Figure 2 provide a detailed description and diagram of the Site as currently known to Ecology.

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.

Basis for the Opinion

This opinion is based on the information contained in the documents listed below:

1. January 23, 2013. *Limited Phase II Screen*. Adapt Engineering (Adapt).
2. November 7, 2012, **(Second) VCP Opinion Letter**. Ecology.
3. November 5, 2012. *Limited Phase II Screen-Work Plan [revised]*. Adapt.
4. October 29, 2012. *VCP Opinion Letter*. Ecology .
5. July 17, 2012. *Limited Phase II Screen-Work Plan*. Adapt.
6. February 9, 2000. *UST Site Assessment*. Gary Struthers Associates.

These 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 calling the NWRO resource contact at (425) 649-7235 or emailing a request to nwro_public_request@ecy.wa.gov. Some of these documents are also available as PDF documents through Ecology's Internet Web page for this Site at <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=10857>.

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

Analysis of the Cleanup

Ecology has concluded that no 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 sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

Establishment of Cleanup Standards

Ecology has determined the cleanup levels and the points of compliance established for the Site meet the substantive requirements of MTCA, as follows:

Soil

The Site is located in a mixed residential and commercial area. Soil cleanup levels for unrestricted use protective of direct human contact are therefore required at the Site. Either MTCA Method A or Method B cleanup levels can be used for this purpose. Method A cleanup levels were chosen. Ecology agrees that Method A cleanup levels are appropriate.

The Site qualifies for an exclusion from a terrestrial ecological evaluation based on exclusions for Point of Compliance [WAC 173-340-7491(1)(a)] and Undeveloped land [WAC 173-340-7491 (1)(b)].

MTCA Method A cleanup levels for soil as given in Table 740-1 are applicable for this Site. Selected values from that table are repeated here for reference and comparison. The cleanup levels for diesel as TPH-D and for heavy oils as TPH-O are both 2,000 mg/kg.

The point of compliance for soil is throughout the Site.

Ground Water

The highest beneficial use for ground water beneath the Site is presumed under MTCA to be a potable source. Cleanup levels protective of this use are being based on Method A cleanup levels.

MTCA Method A cleanup levels for petroleum hydrocarbons in ground water are found tabulated in Table 720-1. Selected values from that table are repeated here for reference

and comparison. The cleanup level for diesel as TPH-D and heavy oil as TPH-O are both 500 µg/l, the standard of comparison for this determination.

The point of compliance for ground water is throughout the Site.

Selection of Cleanup Action

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA. The cleanup meets the minimum cleanup requirements and does not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site.

The selected cleanup consisted of excavation of the contaminated soil and confirmational sampling.

Cleanup

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

In December 1999, one 500 gallon UST used to store diesel fuel was removed from the Property along with the associated single pump dispenser. The dimensions of the excavated area were approximately eight feet by ten feet. The final depth of the excavation was between five and seven feet below ground surface (bgs).

Further removal of petroleum contaminated soil was deferred as further extension of the excavation would have interfered with the operational effectiveness of the station.

The stockpiled soil from the excavation was returned as backfilling. Some imported soil was probably needed to restore the excavation to its surface level, although not specifically confirmed in the site assessment report.

To determine if additional remedial actions were necessary in the vicinity of the former dispenser, a limited Phase II site investigation was conducted on January 14, 2013. Two hand auger borings were used to sample the soil to a depth of five feet bgs. One borehole, B-2, was located at the center of the former fuel dispenser location to sample at approximate location of the highest concentration previously reported in 1999. The highest recorded concentrations were 1,600 mg/kg and 67 mg/kg present at B-2 at one to two feet bgs and four to five feet bgs, respectively. These concentrations are below the current MTCA Method A cleanup level of 2,000 mg/kg for diesel contaminated soil. The cleanup level for diesel in 1999 was 200 mg/kg.

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Soil samples taken from boring B-1 and B-2 were obtained from locations that had not been previously excavated thus represented native soil. The location of the boreholes were down gradient of the known contamination. At boring B-2, the building footing prevented reaching the desired depth of 5 feet bgs.

No further action is required at the Site.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List (ISIS Cleanup#: 10857).

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 or**
- **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).

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.

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).

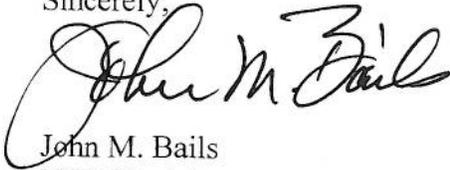
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Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (VCP Number: NW 2615; LUST Number: 531949).

For more information about the VCP and the cleanup process, please visit our website: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (425) 649-7099 or e-mail at jbai461@ecy.wa.gov.

Sincerely,



John M. Bails
VCP Site Manager
Toxics Cleanup Program

Enclosure A: Description and Diagrams of the Site

cc: Mr. Ryan J. Kerrigan, Adapt Engineering, Inc.
Ms. Dolores Mitchell, VCP Financial Manager, Ecology

Enclosure A

Description and Diagrams of the Site

**Seattle Fire Station 6
NW 2615**

Site Description

This section summarizes Ecology understanding and interpretation of site conditions and forms the basis for the opinions expressed in the body of the letter.

Site Name: Seattle Fire Station 6

Property Site Address: 101 23rd Avenue South, Seattle, WA 98144

Site

The Site is listed on Ecology's Confirmed and Suspected Site List for concentrations of diesel-range petroleum exceeding the MTCA Method A cleanup level in effect in 1999. **Enclosure A, Figures 2 & 3** depict the Property and the Site boundaries.

Area Description

The Property is within the city limits of Seattle and is southeast of downtown referred to as the Central District. The Property is located on the southwest corner of the intersection of 23rd Avenue South and East Yesler Way in Seattle, WA. It is bounded on the north by East Yesler Way, a four-lane street; to the east by 23rd Avenue South, a four-lane street. All of the land within 500 feet of the Site is developed primarily as commercial properties.

Property History and Current Use:

The Property has been used since 1894 to support the activities of a fire station. The current fire station was constructed in 1931. Only one underground storage tank was in-service between 1964 and December 1999. The Property is currently excess property to the City of Seattle as a new fire station was built at another location as a replacement. The building is still being used to support government services according to the tax records of King County.

Physiographic Setting

The Property lies at an elevation of between 297 and 309 feet above mean sea level (msl) and slopes generally to the west.

Surface/Storm Water System

Since the roads bordering the site are heavily traveled thoroughfares, adequate storm water drainage is provided by the public storm water system. Lake Washington, the nearest surface water body, is approximately 0.8 of a mile from the Property.

Ecological Setting

Each corner of the intersection of East Yesler Way and 23rd Avenue South and extending several blocks in all directions is fully developed for either residential or commercial purposes, primarily commercial south of the Property. There are no parks in the immediate vicinity.

Geology

Subsurface investigations completed at the Property indicate the geologic materials present include silty-sand to sandy silt with some gravel.

Ground Water

At the Site, ground water was not encountered to an explored depth of seven feet, the maximum explored depth. Well logs for wells within one-quarter mile of the Property do not indicate the presence of ground water. Generally, ground water is not present above a depth 45 feet bgs according to the records maintained by Ecology.

Release and Extent of Contamination-Soil

The highest concentration of diesel range petroleum hydrocarbons (TPH-D) was 2,600 mg/kg from one soil sample beneath the dispenser island at one foot bgs. A second sample collected at two feet bgs was 690 mg/kg; a third sample collected at 3.5 feet bgs was non-detect. The cleanup level for TPH-D is now 2,000 mg/kg.

The shallow diesel impacts were left in-place because the concrete slab above the impacts was of structural importance to the building.

In January 2013, a subsurface investigation involving the sampling in the vicinity of the previous contamination confirmed that the remaining concentrations in soil are below MTCA Method A cleanup levels.

Release and Extent of Contamination-Ground Water

Ground water impacts have not been recorded. Prior to remedial action, soil contamination was restricted to soil above the saturated zone; therefore, the soil to ground water pathway is incomplete.



YESLER WAY

EXISTING UNDERGROUND TELEPHONE

EX. WATER MONITOR LINE

EXISTING UNDERGROUND CABLE TELEVISION

EXISTING UNDERGROUND ELECTRICAL

DIESEL DISPENSER AND DISPENSER BOX REMOVED DURING CLOSURE

FIRE STATION NO. 6

EMERGENCY SHUTOFF SWITCH AND SIGN REMOVED DURING CLOSURE

TANK VENT RISER AND PIPING REMOVED DURING CLOSURE

2" DIA. GUARD POST

GATE VALVE

APPARATUS RAMP

500 GALLON UNDERGROUND DIESEL TANK REMOVED DURING CLOSURE

FILLER CAP

PROTECT EXISTING STEPS

23RD AVENUE

APPROXIMATE SITE BOUNDARY

EXISTING STORM SEWER

EXISTING SANITARY SEWER

EXISTING PARKING

0' 5' 10' 20'
SCALE: 1" = 20'

PLAN

Figure 2

 <p>GARRY STRUTHERS ASSOCIATES, INC. 3150 Richardson Road, Suite 100 Bellevue, WA 98005-4446 Phone: (425) 618-0300 Fax: (425) 618-0309 E-mail: gsa@garrystro.com http://www.garrystro.com</p>	<p>DESCRIPTION</p> <p>REVISION RECORD</p> <table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>APPROV</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV	DATE	BY	APPROV	DATE						<p>ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SHEET, ADJUST PER THIS ACCORDANCE!</p>	<p>CITY OF SEATTLE EXECUTIVE SERVICES DEPARTMENT UNDERGROUND TANK REMOVAL AND REPLACEMENT FINAL GROUP</p>	<p>REMOVAL AND REPLACEMENT OF UNDERGROUND STORAGE TANK SYSTEMS</p>	<p>FIGURE FIRE STATION NO. 6 SITE PLAN</p>
	REV	DATE	BY	APPROV	DATE										
<p>DATE</p>	<p>DATE</p>	<p>DATE</p>	<p>DATE</p>	<p>DATE</p>	<p>2</p>										

John Baly's Ecology
3/26/2013



Apparatus Ramp

Stockpiled Soil

Dispenser

DISP1/DISP2.0/
DISP3.5A/DISP3.5B

SPNW

SPNE

SPS

BR5.5

Diesel UST

BR5.5

B07

SG5.5

SG5.5

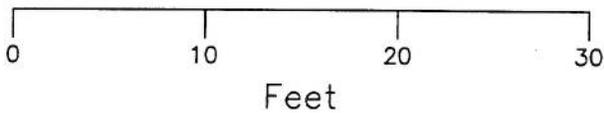
APPROXIMATE
SITE BOUNDARY

Legend

Sampling
Locations:

Soil

Scale 1"=10'



Note: All sample labels are
preceded by "FS06".

JOHN BRAL, Ecology
3/26/2013

Site Assessment Sampling
Locations for Fire Station #6

Figure
3