



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 25, 2016

Mark McCuddy
MC Marine, LLC
250 NE Tomahawk Island Drive
Portland, Oregon 97217

Re: No Further Action at the following Site:

- **Site Name:** R.J. Frank Property
- **Site Address:** 5 Mill Street, Ridgefield, Clark County, WA
- **Facility/Site No.:** 1062
- **Cleanup Site ID No.:** 2971
- **VCP Project No.:** SW1331

Dear Mr. McCuddy:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the R.J. Frank Property (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:

- Petroleum Hydrocarbons (specifically diesel- and oil-range) including Polycyclic Aromatic Hydrocarbons (PAHs) into the Soil and Groundwater
- Polychlorinated biphenyls (PCBs) into the Soil

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Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note the Pacific Wood Treating (PWT) facility (FSID #1019) also affects parcel(s) of real property associated with this Site. This opinion does not apply to any contamination associated with the PWT facility.

Basis for the Opinion

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

1. EES Environmental Consulting, Inc. (EES), Request for Written Opinion Letter, R.J. Frank Site, dated November 4, 2015.
2. EES, 4Q Groundwater Monitoring Results (August 2015), R.J. Frank Site, dated September 29, 2015
3. EES, 3Q Groundwater Monitoring Results (May 2015), R.J. Frank Site, dated June 18, 2015
4. EES, 2Q Groundwater Monitoring Results (February 2015), R.J. Frank Site, dated March 31, 2015
5. EES, 1Q Groundwater Monitoring Results (November 2014), R.J. Frank Site, dated January 2014
6. EES, Completion Report – Limited Soil Removal Action, R.J. Frank Site, dated July 22, 2015
7. EES, Site Investigation Report, R.J. Frank Site, dated August 25, 2014
8. EES, Site Investigation Work Plan, R.J. Frank Site, dated February 19, 2014
9. Ash Creek Associates, Inc., Revised Phase II ESA, Ridgefield Rail Overpass Project, dated October 10, 2010
10. Southwest Washington Health District, Site Hazard Assessment of 5 Mill Street, Ridgefield, dated February 21, 1996

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those 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:

1. 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**.

The R.J. Frank property (Site) is located at 5 Mill Street in Ridgefield, Clark County, Washington. The Site was purchased in 1996 and developed as McCuddy's Marina and includes approximately 6.2 acres with a narrow upland area for parking and access to the 11.4 acre marina located along Lake River. The Port of Ridgefield purchased 1.3 acres of the Site in 2013 to develop and operate a railway overpass (*Enclosure A – Attachment No. 1*).

In 1996, Ecology completed a Site Hazard Assessment (SHA) of the Site based on a subsurface investigation performed by Hahn and Associates, Inc. in 1992 and an Initial Investigation Report filed by Ecology. Soil samples from several locations in the vicinity of the former bulk petroleum storage/distribution area analyzed using analytical method WTPH-HCID indicated diesel/bunker oil range Total Petroleum Hydrocarbons (TPH). The quantitative TPH results for these soil samples using Method 418.1 indicated concentrations above current MTCA Method A cleanup levels (CULs).

During the 1992 investigation seven soil samples were analyzed for PCBs. The analytical results indicated two soil samples where PCBs were detected above cleanup levels including soil samples HA-1 at 1.5 feet below ground surface (bgs) and B-4 at 8.0 bgs. Documentation for soil sample HA-1 was poor; and the result was neither reported by the lab, nor validated by the consultant.

In 2013, EES Environmental Consulting Inc. (EES), on behalf of the current owner, reviewed available technical reports completed for the Site since the early 1990s and developed a work plan to further assess historical areas and activities of potential concern.

These areas or activities included: the former bulk petroleum storage/distribution area; possible road oiling and dust suppression activities; unknown PCB source based on the 1992 soil samples HA-1 and B-4; the former rail spur area; the possible dredged sediment dewatering area; and other “off-property” sources (*Enclosure A – Attachment No. 2*).

Based on the review of available reports, EES and Ecology concluded that three of these areas of concern should be the focus of the Remedial Investigation (RI) at the Site. The areas included the former bulk fuel/distribution area, unknown PCB source (1992 soil samples HA-1 and B-4), and the possible dredged sediments dewatering area (*Enclosure A – Attachment Nos. 2, 3, and 4*).

EES performed the RI in 2014, and results indicated localized concentrations of diesel- and oil-range petroleum hydrocarbons in the vicinity of three locations including the former bulk fuel and distribution area, 1992 soil sample B-4 (unknown PCB source area), and the possible dredged sediments dewatering area (*Enclosure A – Attachment No. 5*).

Following completion and reporting of the RI results, and subsequent discussions with Ecology, it was concluded that PCBs were no longer a chemical of concern at the Site. It was further concluded that work would focus on groundwater monitoring to evaluate non-gasoline hydrocarbon impacts at the former bulk oil storage area and the former dredge sediment dewatering area.

Based on the results of the RI, EES installed six groundwater monitoring wells (MW-1 through MW-6) in October and November 2014 which included four (MW-1, -2, -3, and -6) in the vicinity of the former bulk fuel/distribution storage area and two (MW-4 and MW-5) in the vicinity of the possible dredged sediments dewatering area (*Enclosure A – Attachment No. 6*).

In addition, EES removed approximately 70 tons of contaminated soil in June 2015 from the former bulk fuel storage area and collected soil confirmation samples to ascertain that the limits of the contamination had been addressed for that release (*Enclosure A – Attachment Nos. 7 and 8*).

Since November 2014 five groundwater monitoring wells have been sampled quarterly with the most recent sampling event occurring in February 2016 (*Enclosure A – Attachment Nos. 9 and 10*).

It is Ecology’s opinion that characterization of the Site is sufficient, and no additional soil characterization or groundwater monitoring is required. We have the following comments:

Former Bulk Fuel Area

The final confirmation soil samples collected after completion of the June 2015 soil excavation in the vicinity of location EES-14/EES-14a demonstrate that soil contamination has been adequately removed from this area. We have concluded that no further soil characterization and/or cleanup is required in this area.

Analytical results for groundwater samples since November 2014 through November 2015 have demonstrated four consecutive quarters of results below MTCA Method A cleanup levels for these constituents. We have concluded that no further groundwater sampling is required in this area.

Former Dredge Spoil Dewatering Area

Due to concentrations above MTCA Method A cleanup levels, groundwater monitoring wells in this area were sampled until 2016 and analyzed for PAHs, as well as diesel- and oil-range petroleum hydrocarbons.

Analytical results for groundwater samples collected from November 2014 through February 2016 have demonstrated four consecutive quarters of results below MTCA Method A cleanup levels for these constituents. We have concluded that no further groundwater sampling is required in this area.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Soil analytical results were compared to MTCA Method A Unrestricted Land Use including Gasoline (30 mg/kg), Diesel (2,000 mg/kg), and Lube Oil (2,000 mg/kg).

Soil concentrations of cPAHs and PCBs were compared to MTCA Method A, Unrestricted Land Use, using the toxic equivalency methodology Table 740-1 (revised MTCA Regulations 2013) of 0.1 mg/kg.

Groundwater analytical results were compared to MTCA Method A Levels and included Gasoline (1,000 µg/L, if no benzene is present), Diesel (500 µg/L), and Lube Oil (500 µg/L).

Groundwater analytical results of cPAHs were compared to MTCA Method A, Unrestricted Land Use, using the toxic equivalency methodology (revised MTCA Regulations 2013) of 0.1 µg/L.

Standard points of compliance were used for the Site. The point of compliance for protection of groundwater was established in the soils throughout the Site. For soil cleanup levels are based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance was established in the soils throughout the Site from the ground surface to 15 feet bgs. In addition, the point of compliance for the groundwater was established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

To meet the established cleanup standards, Ecology requires four consecutive quarters of groundwater concentrations below the selected cleanup level for the chemicals of concern at the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you completed for the Site meet the substantive requirements of MTCA.

Cleanup actions to date have included the excavation and off Site removal of contaminated soil.

4. Cleanup.

Ecology has determined the cleanup you performed meet the cleanup standards at the Site.

Cleanup actions at the Site have included the removal of approximately 70 tons of contaminated soil from the vicinity of the former bulk fuel storage area. Confirmation soil samples collected at the lateral and vertical extents of the excavation were below cleanup levels.

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from our lists of hazardous waste sites, including:

- Hazardous Sites List.
- Confirmed and Suspected Contaminated Sites List.

That process includes public notice and opportunity to comment. Based on the comments received, Ecology will either remove the Site from the applicable lists or withdraw this opinion.

Limitations of the Opinion

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 proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Site upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

4. 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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Contact Information

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW1331).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (360) 407-6265 or e-mail at John.Rapp@ecy.wa.gov.

Sincerely,



John F Rapp LHG
SWRO Toxics Cleanup Program

JFR: anf

Enclosures: A – Description and Diagrams of the Site

By Certified Mail 9171999991703312833952

cc: Paul Ecker and Chris Rhea, EES Environmental Consulting, Inc.
 Matt Alexander, Ecology
 Nicholas Acklam, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

The RJ Frank Property (Site) is located at 5 Mill Street in Ridgefield, Washington (*Attachment No. 1*). When purchased and established as McCuddy's Marina in 1996, the Site covered approximately 6.2 acres and included a narrow "upland" area used for vehicle parking and access to the established 11.4 acre marina located along Lake River, similar to its current layout. The 11.4 acre in-water portion of the marina within Lake River is adjacent to this upland area and is owned by the Washington Department of Natural Resources (DNR).

Site History

Historical aerial photographs indicate that portions of the Site were operated by others as early as the 1950s. In 2013, the Port of Ridgefield purchased an approximately 1.3 acre portion of the Site for planned future construction and operation of a railway overpass. This "right of way acquisition area" is located on the northeastern portion of the Property.

Historical operations at the Site included a lumber mill (1920s to 1950s), bulk petroleum storage and distribution (1970s to approximately 1990), and marina operations (1950s to present). Additionally, a rail spur and access roads formerly located on the Site provided physical connection to the adjacent Pacific Wood Treating (PWT) facility, which may have used and accessed portions of the Site for treated lumber storage and other purposes. The vacant PWT site is currently owned by the Port of Ridgefield and is the subject of a cleanup action under the direction of Ecology (FSID #1019) (*Attachment No. 2*).

Anecdotal information and some aerial photographs indicate the adjacent former PWT facility likely used the Site for various purposes and may have stored treated wood products and possibly spilled chemicals on the Site during past operations. As part of its Remedial Investigation for the PWT/LRIS Site, the Port of Ridgefield collected various samples at the Site and identified dioxins/furans at variable, but generally low concentrations in soils. Three soil samples collected on the Site had dioxin levels ranging from 2.3 ng/kg to 13 ng/kg, exceeding the MTCA Method B direct contact soil CUL of 11 ng/kg. However, the RI/FS prepared for PWT stated that dioxin levels were not expected to pose an unacceptable risk and Ecology has acknowledged that dioxins are not regarded as Contaminants of Interest (COI) at the Site except as they relate to the PWT source.

In an effort to characterize potential environmental impacts associated with historical operations, numerous assessment, investigation, and cleanup activities have been conducted at the Site since the early 1990s. Site assessment documents indicate that one or more petroleum spills are reported to have occurred during facility operations in the 1970s, and visibly stained ground surfaces were observed in the early 1990s in areas consistent with inferred locations of the former bulk petroleum storage/handling infrastructure (*Enclosure A – Attachment Nos. 2 and 3*).

Details regarding the nature and extent of specific petroleum releases have not been confirmed. Petroleum product tanks and related infrastructure were decommissioned and removed from the Property by the mid-1990s.

Numerous petroleum product tanks were located on the Site during an operational period spanning the 1970s and 1980s. Some related infrastructure was present on the Property into the mid-1990s.

Site Environmental Investigations

Although fueling equipment and infrastructure were reported to have been removed by the mid-1990s, operational and decommissioning details are not currently known. Historic assessment/investigation data is limited. More recent assessment data (2007 to 2013) indicate no significant hydrocarbon concentrations exceeding default MTCA Method A soil or groundwater screening criteria (*Enclosure A – Attachment Nos. 3 and 4*).

Older data from the 1990s indicate relatively high petroleum concentrations exceeding default MTCA cleanup levels were present in soil at various locations consistent with the bulk petroleum facility operations. Remedial excavation occurring in the mid-1990s is likely to have addressed some of the fuel impacts, but confirmatory data were lacking. Investigations to date included groundwater sampling at multiple locations and concluded that groundwater impacts by fuels and related constituents at the Site were not identified (*Attachment No. 4*).

In 1996, Ecology completed a Site Hazard Assessment (SHA) at the Site based on a subsurface investigation performed by Hahn and Associates, Inc. in 1992 and an Initial Investigation Report filed by Ecology. Two locations at the Site had concentrations of TPH and PCBs that exceeded the applicable cleanup standards at that time and included: soil sample location HA-1 indicated TPH and PCB concentrations of 30,000 mg/kg and 35 mg/kg, respectively, at the former Fuel Dispenser and Storage Area at a depth of 1.5 bgs; and soil sample locations B-3 and B-4 indicated TPH concentrations of 21,000 mg/kg (3.0 bgs) and 890 mg/kg (8.0 bgs), respectively, at the Vertical Above Ground Storage Tanks area (*Attachment Nos. 3, 4, and 13*).

In August 2013, in response to Ecology's *Notice of Potential Liability*, the Site enrolled in Ecology's Voluntary Cleanup Program. In February 2014, following an assessment of previous Site investigation information and discussions with Ecology, EES Environmental Consulting, Inc. (EES) provided a work plan to evaluate current soil and groundwater conditions at the Site.

In 2014, EES conducted a Remedial Investigation at the Site at areas with known or suspected contamination at the following areas (*Enclosure A – Attachment Nos. 2 -4, 13-16*):

- Bulk Petroleum Storage and Distribution
 - ✓ Evaluate elevated TPH concentrations identified in the 1990s
- 1992 soil sample B-4 location (Unknown PCB Source)
 - ✓ Confirmatory samples to evaluate PCB concentrations at location B-4 sampled in 1992.
- Possible Dredged Sediments Dewatering
 - ✓ Additional characterization to evaluate potential impacts in this area.

In April and June 2014, EES collected soil and groundwater samples from 20 soil borings across the Site (*Enclosure A – Attachment No. 5 and 6*). The results of this investigation indicated exceedances of cleanup levels at the possible dredge sediments dewatering and former bulk petroleum storage areas (*Enclosure A – Attachment Nos. 7 and 11*). Based on the results of the remedial investigation, EES excavated and removed approximately 70 tons of petroleum contaminated soil from the former bulk fuel petroleum storage area (*Enclosure A – Attachment No. 8*) and instituted groundwater monitoring at this location and the possible dredged sediments dewatering Area (*Enclosure A – Attachment Nos. 9 and 10*).

Site Hydrogeology

Subsurface conditions observed during the 2014 site investigation were generally consistent among borings and with prior investigations. The ground surface is generally covered by grass/topsoil or gravel roadways, depending on location.

Surficial topsoil and gravel cover fill were generally underlain by silty sands and sandy silts to the maximum depths explored (20 feet). Woody debris was observed variably within the vertical profile explored, consistent with (1) historical mill operations and (2) naturally-occurring Lake River overbank deposits. Groundwater was observed at depths between six and 13 feet bgs,

Site Diagrams

Attachments:

1. Site Vicinity Map – EES Figure No. 1, dated 1/27/2014
2. Site Features – EES Figure No. 2, dated 7/17/15
3. Previous Sample Locations (1992 – 2013), EES Figure No. 3, dated 5/29/2014
4. Previous GW Sample Locations (1992 – 2013), EES Figure No. 6, dated 5/29/2014
5. Sample Locations (April – June 2014), EES Figure No. 7. Dated 7/3/2014
6. Groundwater Monitoring Well Locations and Water Table Elevations, EES Figure No. 2, dated 6/5/2015
7. Petroleum Hydrocarbon Concentrations in Former Tank Farm Area, EES Figure No. 3, dated 10/30/2015
8. Soil Removal Area and Confirmation Soil TPH Results, EES Figure No. 4, dated 10/30/2015 .
9. Diesel and Oil Concentrations in Groundwater (11/2014 – 11/2015), EES Figure No. 3, dated 1/5/2016
10. PAH Concentrations in Groundwater (11/2014 – 11/2015), EES Figure No. 4, dated 1/5/2016
11. Greatest Total TPH Results in Soil (1992 – 2014), EES Figure No. 4, dated 5/29/2014
12. Greatest Total PCB Results (1992 – 2013), EES Figure No. 5, dated 8/18/2014
13. 1992 Soil Analytical Results, Hahn and Associates, Inc. Table No. 1, dated 8/6/1992
14. 2010 Soil TPH and Metals Results, Ash Creek Associates Table No. 2, dated 8/9/2010
15. 2010 Soil PCBs, Ash Creek Associates Table No. 2, Table 3, dated 8/9/2010
16. 2010 Groundwater TPH Results, Ash Creek Associates, Table 4, dated 8/9/2010

