



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 1, 2013

Laura Skow
Environ Strategy Consultants, Inc.
1036 West Taft Avenue, Suite 200
Orange, CA 92865

Re: Further Action at the following Site:

- **Site Name:** Jackpot Food Mart, Site 01-056
- **Site Address:** 500 George Washington Way, Richland
- **Facility/Site No.:** 38214358
- **Cleanup Site No.:** 5992
- **VCP Project No.:** CE0381

Dear Ms. Skow:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Jackpot Food Mart 056 facility (Site). Ecology appreciates your initiative in pursuing an independent remedial action under the Model Toxics Control Act (MTCA). 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?

YES. 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 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:

- TPH-Gx, TPH-Dx, benzene, toluene, ethylbenzene, and total xylenes into soil; and
- TPH-Gx, TPH-Dx, benzene, toluene, ethylbenzene, total xylenes, and lead into groundwater.



Please note 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. *"Site Closure Plan, PC&F Site 01-056, 500 George Washington Way, Richland, Washington,* Environ Strategy Consultants, Inc., January 21, 2011.
2. *"Groundwater Monitoring Report, Site 01-056, 500 George Washington Way, Richland, Washington",* Environ Strategy Consultants, Inc., 3rd Quarter 2010, 4th Quarter 2011, 2nd Quarter 2012.
3. *"Executive Summary: Leaking Underground Storage Tank Review",* Ecology and Environment, Inc., December 2, 2008
4. Jackpot 01-056 Correspondence File, Ecology's Central Regional Office.

Those documents are kept at the Central Regional Office (CRO) of Ecology for review by appointment only. You can make an appointment by calling the CRO resource contact, Roger Johnson, at 509-454-7658.

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

Geologic or hydrogeologic reports submitted to Ecology for review must be under the seal of an appropriately licensed professional, as required by Chapters 18.43 and 18.220 RCW. Be aware also that consistent with Chapter 173-340-840(5) and described in Policy 840, all environmental monitoring data generated during contaminated site investigations and cleanups shall be required to be submitted to Ecology in both a written and electronic format.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** may be 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 not sufficient to establish cleanup standards and select a cleanup action.

The characterization of the Site is insufficient to establish cleanup standards. Further investigation necessary to characterize the Site may include additional soil sampling in the areas where impact to groundwater is demonstrated near the source area. As noted on page 17 of the Site Closure Plan, data gaps have been recognized, more specifically, the absence of confirmational soil samples from the area of the former tank cavity and the pump islands. Continued detection of the contaminants of concern above MCTA Method A groundwater cleanup levels is indicative of several possibilities with the likelihood of one or more of the following: remaining source material or contaminated fill material in the tank cavity area or a smear zone near the affected wells.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

In the areas where impact to groundwater has been confirmed, the soil cleanup level is based on the leaching exposure pathway for protection of groundwater. The applicable point of compliance for this exposure pathway is defined as throughout the Site. Furthermore, the point of compliance extends throughout the soil profile and may extend below the water table. Additional soil sampling is required to demonstrate that the cleanup level has been met at the point of compliance near the source area. Refer to Section 1 above for discussion of the incomplete soil characterization of the Site.

More specifically, petroleum contamination levels shown by the groundwater analytical results from MW-1, MW-4 and MW-32 have not sufficiently stabilized to allow Stage 2 groundwater monitoring as described in the *Guidance for Remediation of Petroleum Contaminated Sites* (Publ. 10-09-057). Groundwater impact by benzene and gasoline contamination has been detected above MCTA Method A groundwater cleanup levels on an intermittent basis over the monitoring period, most notably during the 2011 sampling event. Additionally, if groundwater contamination has been detected, quarterly monitoring is required for the direct comparison approach. The data from these three wells precludes using a statistical approach to determine compliance since it fails the three-part test.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA. Refer to the discussion in Step 2 regarding the insufficiency in meeting the substantive requirements for the cleanup standards.

Long-term groundwater monitoring by itself is not considered a cleanup action. Alternatively, the selection of monitored natural attenuation as a cleanup action consistent with WAC 173-340-370(7) requires that source control has been conducted to the following:

1. Source control has been conducted to the maximum extent practicable;
2. Leaving contaminants on-site during the restoration time frame does not pose an unacceptable risk to human health or the environment;
3. There is evidence that natural biodegradation or chemical degradation is occurring and will continue to occur at a reasonable rate at the site; and
4. Appropriate monitoring requirements are conducted to ensure that the natural attenuation process is taking place and that human health and the environment are protected.

In addition to soil sampling as mentioned in Step 1, the collection of additional groundwater parameters for the geochemical analysis is required to demonstrate that natural biodegradation or chemical degradation is occurring.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet cleanup standards at the Site.

The cleanup performed has not yet achieved cleanup standards. The nature of the existing groundwater data does not lend itself to a determination addressing the effectiveness of the cleanup at all the points of compliance; rather the data gives the appearance of effectiveness as demonstrated specifically by the rebound of benzene in MW-1 and MW-4.

Groundwater monitoring must continue for a minimum of eight quarters (2 years) for wells, MW-1, MW-4 and MW-32, in conformance with Stage 3 groundwater monitoring as outlined in the *Guidance for the Remediation of Petroleum Contaminated Sites*.

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).

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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 performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

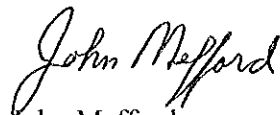
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (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 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 509-454-7836 or e-mail at john.mefford@ecy.wa.gov.

Sincerely,



John Mefford
Site Manager
CRO Toxics Cleanup Program

cc: Walter Sprague, Pacific Convenience & Fuels, LLC
Cindy Johnson, City Manager, City of Richland
Dolores Mitchell, VCP Financial Manager