



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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September 15, 2014

Mr. Greg Draper
20 Enatai Drive
Bellevue, WA 98004-7408

Re: Further Action at the following Site:

- **Name:** UCO Corporation
- **Address:** 9225 151st NE, Redmond, WA
- **Facility/Site No.:** 2533
- **Cleanup Site ID No.:** 2669
- **VCP No.:** NW2710

Dear Mr. Draper:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the UCO Corporation 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?

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:



- Total petroleum hydrocarbons in the heavy oil range (TPH-O) and associated carcinogenic polycyclic aromatic hydrocarbons (cPAHs) into the soil.
- Aluminum into the soil.

Enclosure A includes a detailed description 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 following documents:

1. Terra Associates, Inc., *Remedial Investigation and Cleanup Action Summary, Former UCO Facility 9225 151st Avenue NE, Redmond, WA, King County Tax Parcel 720170-0051*, dated May 12, 2014.
2. Terra Associates, Inc., *Remedial Investigation, Former UCO Facility 9225 151st Avenue NE, Redmond, WA, King County Tax Parcel 720170-0051*, dated March 29, 2013.

Those 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 sending an email to nwro_public_request@ecy.wa.gov.

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 **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**.

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.

MTCA Method A industrial cleanup levels are the soil cleanup standards proposed for the Site. The basis for selecting the industrial cleanup standards is the current use of the Property and adjacent properties and the location of the Site within an area zoned Manufacturing Park by the City of Redmond. The City of Redmond code defines Manufacturing Park zoning as “existing and future manufacturing and industrial uses...office and other secondary uses are limited to those that support these primary uses”. Ecology has determined the area of the Site does not meet the definition of an industrial property under WAC 173-340-200. The following criterion has not been met: *access to industrial property by the general public is generally not allowed or if allowed, it is highly limited and controlled due to safety or security considerations and the cleanup action provides for appropriate institutional controls implemented in accordance with WAC 173-340-440 to limit potential exposure to residual hazardous substances. This shall include, at a minimum, placement of a covenant on the property restricting use of the area of the site where industrial soil cleanup levels are proposed to industrial property uses.*

In addition, the Property is located less than 500 feet from a sports complex (Arena Sports) which is used by children and includes child care services. Soil cleanup standards should be established based on the direct contact pathway and protection of ground water quality. Cleanup levels for unrestricted land use would be appropriate for this Site.

The Site qualified for a simplified Terrestrial Ecological Evaluation (TEE). The TEE process was ended based on an exposure analysis performed in accordance with WAC 173-340-7492 (2)(a). The total area of soil contamination is approximately 250 square feet, therefore making substantial wildlife exposure unlikely.

It has not yet been demonstrated that ground water has not been impacted by the release. The Site is located in the City of Redmond, which gets one third of its drinking water supply from a shallow unconfined ground water aquifer located beneath the City Center and extending east toward Novelty and Union Hill. Cleanup standards should be established for ground water for this Site that is based on the use of ground water as a source of drinking water as the highest beneficial use.

The standard point of compliance for soil should be set based on direct contact and the protection of ground water. The point of compliance is therefore in soil throughout the Site.

The standard point of compliance for ground water is throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA.

Excavation was the selected cleanup action for this Site. The cleanup action selected was appropriate; however, the cleanup standards established do not meet the substantive requirements of MTCA.

Representative ground water samples are needed from the Site beneath the identified area of contamination in soil to confirm ground water on the Site has not been impacted.

4. Cleanup.

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

A total of 14.87 tons of soil was removed from the Site for disposal off-Site.

The excavation activities failed to remove all contaminated soil above appropriate cleanup levels for cPAHs. Although the excavation successfully removed contaminated soil exceeding Method A cleanup levels for industrial properties, the Site does not meet the requirements for use of these cleanup levels. Documentation of excavation sampling is incomplete. The depth of sample collection for soil sample 12-20-1 should be added to Table 11. An additional soil boring is needed to determine if soil contamination extends beneath the edge of the pavement.

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 (425) 649-7097 or e-mail at desc461@ecy.wa.gov.

Sincerely,



Diane Escobedo
Toxics Cleanup Program

Enclosure (1): A – Description of the Site

cc: Randy Cowin, L & R Enterprises LLC
Charles Lie, Terra Associates, Inc.
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Description of the Site

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 aluminum machining scraps coated with cutting oil and compressor oil to the soil. The Site is located at 9225 151st Avenue NE in Redmond, WA (Property), which is King County tax parcel 7201700051. The Site extends onto the adjacent tax parcel 7201700062 (9255 151st Avenue NE).

Area and Property Description: The Property is an approximately 0.4 acre parcel located on the west side of 151st Avenue NE between Northeast 95th Street to the north and NE 90th Street to the south. The Property is surrounded by buildings used for offices, warehousing and light manufacturing. The Property is bordered by Vintage Racing Motors (automotive sales, restoration and repair) to the north, Comtech (distribution, maintenance and repair of phone services) and Finishing Unlimited (metal finishing products for industrial properties) to the west, Cascade Auto LLC (auto repair services) to the south, and 151st Avenue to the east.

Property History and Current Use: Prior to the late 1970s, the Property and vicinity were used as pasture and farmland. The existing building was constructed in 1977. Until 2012, the building was used by UCO Corporation, a manufacturer of backpacking and mountaineering equipment made from extruded aluminum (extrusion is a technique used to transform aluminum alloy into objects with a definitive cross-sectional profile). Aluminum was cut and machined at the Property. The Property building is currently occupied by RC Painting, which provides commercial and residential painting services. RC Painting uses the building for paint and equipment storage and office space.

Contaminant Source and History: In 1993, the Redmond Fire Department responded to a complaint regarding improper disposal of aluminum shavings and petroleum products into a planter area north of a paved parking lot on the west side of the former UCO building. A site visit by Municipality of Metropolitan Seattle Hazardous Waste Management group (Metro) in January 1994 confirmed a black stained area approximately 96 square feet in size with stressed and dying vegetation nearby indicating recent releases. At that time, the Property owner mentioned that past practices (within the last couple of years) included dumping of cutting oils and compressor oil and/or being swept out to the back area, but stated that the current practice was to collect the aluminum shavings for recycling. However, an additional visit by Metro to the Property in April 1994 stated there were indications the dumping practices were still ongoing. An Ecology site visit in May 1994 indicated material was being dumped just over the Property line and onto the adjoining property located at 9255 151st Avenue NE. The Seattle-King County Department of Public Health conducted a Site Hazard Assessment in 1999 and collected soil samples confirming the presence of heavy oil (3,200 mg/kg at 8 inches below the ground surface (bgs)) above the MTCA Method A cleanup level of 2,000 mg/kg. The Site was ranked as a "5" using the Washington Ranking Method and listed on the Hazardous Site List on August 20, 1999. The dimensions of the release area are approximately 12 feet by 20 feet.

Physiographic Setting: The Property is located on the former flood plain of the Sammamish River. The channelization of the river in the early 1900s and contemporary storm drainage network eliminated the flooding risk.

Surface/Storm Water System: Surface water is controlled by storm sewers in paved areas. Precipitation either infiltrates through the soil in landscaped area or flows over paved surfaces into the storm drain system. Roof downspouts are tight lined to the municipal storm water management system located in the adjacent street. The nearest body of water is the Sammamish River is located approximately 1,780 feet to the east of the Property.

Ecological Setting: The Property and surrounding area are primarily covered by buildings, asphalt and minor landscaped areas. The northern half of a nearby 3.5 acre parcel located approximately 400 feet northeast of the Property is currently vacant and appears to be covered with grasses, shrubs and small trees.

Geology: The Site is located on the former flood plain of the Sammamish River. The Property is underlain by recent alluvium consisting of poorly-drained alluvial sediments that are mostly sand and organic rich mud with some peat deposits. The thickness of the alluvium is estimated to be 40 feet. The Site vicinity is overlain by two to three feet of fill.

Ground Water: Ground water on the Site is estimated to be at a depth of about ten feet below grade based on nearby test pits and soil borings included in geotechnical reports for neighboring properties and roads. The ground water occurs within alluvial soils that underlie this portion of Redmond. Ground water on the Site likely flows to the northeast toward and sub parallel to the Sammamish River which flows to the north. Ground water has not been encountered at the Site to the total explored depth of 2½ feet.

Water Supply: The Property is serviced by the City of Redmond. About one third of Redmond's drinking water supply comes from a shallow unconfined ground water aquifer located beneath the City Center and extending east toward Novelty and Union Hill. Redmond operates five shallow municipal wells. The Property is located in wellhead protection Zone 4, which is outside of the Critical Aquifer Recharge Area. It should be noted that the Property borders Zone 3 east of 151st Avenue NE and south of the Property. In Zone 3, up to ten years are required for ground water to travel to the nearest drinking water well.

Release and Extent of Soil Contamination: Soil samples collected in 1999, UCO-1 and UCO-2, were collected at eight inches bgs and 10 inches bgs respectively. The total petroleum hydrocarbon concentration in the heavy oil range was 3,200 milligrams per kilograms (mg/kg) at eight inches bgs, exceeding the MTCA Method A cleanup level. Carcinogenic polycyclic aromatic hydrocarbon (cPAH) concentrations in 2012 soil samples collected at depths of 10 and 24 inches bgs from locations TP-4 and TP-6 exceeded MTCA Method A cleanup levels. The maximum carcinogenic polycyclic aromatic hydrocarbon (cPAH) concentration was 4.43 mg/kg collected from test pit TP-4 at 10 inches bgs.

In December 2013, the cPAH-contaminated soil was excavated and disposed of off-site. A total of 14.87 tons of soil was removed. The maximum depth of the excavation was 30 inches bgs.

Contaminated soil may extend beneath the pavement to the east. A maximum cPAH concentration of 0.46 mg/kg was detected at sample 12-20-1 collected from the southern edge of the dirt planter area (depth of sample not specified) adjacent to the pavement.

The maximum aluminum concentration of 44,000 mg/kg detected in soil was collected from location 12-18-6 at a depth of 30 inches. This value was below the Method B cleanup level for aluminum.

It should be noted barium, chromium, lead, arsenic, copper, nickel and zinc were detected in soil at concentrations consistent with natural background values for the state Washington (Ecology publication #94-115)