

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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April 1, 2011

Mr. Thomas Markl Nelson Real Estate Management, L.L.C Post Office Box 461 Redmond, Washington 98073-0461

Re: No Further Action at a Property Associated with a Site:

Property Address: Cleaning Center of Redmond -15796 Redmond Way,

Redmond, WA 98052

Facility/Site No.: 26296554VCP Project No.: NW1324

Dear Mr. Markl:

The Washington State Department of Ecology (Ecology or we) received your request for an opinion on your independent cleanup of a Property associated with the Cleaning Center of Redmond 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.

Issues Presented and Opinion

- 1. Is further remedial action necessary at the property to clean up contamination associated with the Site?
 - NO. Ecology has determined that no further remedial action is necessary at the property to clean up contamination associated with the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

Is further remedial action still necessary elsewhere at the Site?

YES. Ecology has determined that further remedial action is still necessary elsewhere 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 Property and the Site

This opinion applies only to the property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The property includes tax parcel number **7198900080** in King County, which was affected by the Site and addressed by your cleanup. The property known as the Redmond Center Property (Nelgroup Properties LLC) is affected by two releases (sources); hence, two sites.

The first release is due to historical activities associated with the Cleaning Center of Redmond and is being addressed by this property no further action (NFA) and constitutes:

- Tetrachloroethylene (PCE) in soil.
- Tetrachloroethylene (PCE) in groundwater.
- Tetrachloroethylene (PCE) and Trichloroethene (TCE) in soil vapor and indoor air.

The second release southwest of the Redmond Centre property appears to be from off-property-related historical activities from an up-gradient source associated with the Former Redmond WASH N' DRY and identified as the Redmond Shopping Square Property (city of Redmond) and is not part of this NFA.

The second release constitutes:

- Tetrachloroethylene (PCE) in groundwater.
- Tetrachloroethylene (PCE) in soil.
- Potentially, Tetrachloroethylene (PCE) in the vapor phases for both indoor and outdoor air.

Enclosure A includes a legal description of the Property. Enclosure B includes a diagram of the Site that illustrates the location of the property within the site (first release).

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the first release as described above.

- Tetrachloroethylene (PCE) in soil.
- Tetrachloroethylene (PCE) in Ground Water.
- Tetrachloroethylene (PCE) and Trichloroethene (TCE) in soil vapor and indoor air.

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

3. Identification of Other Sites that may affect the Property.

A report contained in Ecology files show that the Redmond Shopping Square Property (city of Redmond) historically operated a dry cleaning service identified as the Wash N' Dry facility (See Enclosure C-1). Data shows that this facility is currently undergoing an independent cleanup of the PCE impacts to the soil and groundwater at that location. The Wash N' Dry cleaner facility located up-gradient, along a southwesterly groundwater flow is identified as the potential source impacting the Redmond Center Property (Nelgroup Properties LLC), identified in this letter as the second site (See Enclosure C-2). The Wash N' Dry facility is located at 16101 through 16149 Redmond Way. Please refer to Enclosure C-1 for locations of the two properties noted above and to Enclosure C-2 for the locations of the two sites (PCE plumes in the groundwater) located within the Redmond Center Property (Nelgroup Properties LLC).

Basis for the Opinion

This opinion is based on the information contained in the documents listed in Enclosure D. Those documents are kept in the Central Files Ecology's 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 425-649-7239.

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

Analysis of the Cleanup

1. Cleanup of the Property located within the Site.

Ecology has concluded that **no further remedial action** is necessary at the property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

a. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards for the Site and select a cleanup for the property. The Site is described above and in Enclosure B.

b. Establishment of cleanup standards for the Site.

Substance-specific standards. Ĭ.

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

The cleanup levels are as follows:

Soil:

Tetrachloroethylene (PCE) in soil at 0.05 mg/kg for the protection of

drinking water and indoor air and unrestricted land use.

Groundwater: Tetrachloroethylene (PCE) in Ground Water at 5 ug/l for the protection of

drinking water.

Indoor air:

Tetrachloroethylene (PCE) at 4.27 ug/m+ 3 and Trichloroethene (TCE) at

0.93 ug/m+ 3 for the protection of commercial workers

Standard compliance points are as follows:

Soil:

For the Direct Contact: From the ground surface to 15 feet below surface

throughout the property. Please refer to Enclosure B for property.

Groundwater: Performance standards for the groundwater were measured from the uppermost level of the saturated zone extending vertically to the lowestmost depth which could be potentially affected by the property. These monitoring points are shown in Monitoring wells MW-1 through MW-8 as

shown in Enclosure B.

Indoor Air:

A site-specific risk assessment used a time weighted average as shown in table 1 of the August 31, 2010, Indoor Air Assessment. Performance monitoring was conducted at the floor drains and at the breathing spaces (about 4 feet above the ground) at the restrooms and center of the Staples Store as part of the evaluation of the cleanup standards for the indoor air. Locations of the points of compliance for the indoor air are located in Enclosure E. Please refer to Enclosure E for Table 1. The compliance points measured as part of the NFA performance monitoring and to be measured during the confirmation monitoring (Post NFA) as part of the five-year review are located in the center of the Staples Store and in the restroom of the Staples Store please refer to Enclosure E for post NFA Confirmation monitoring points and compliance points.

Selection of cleanup for the Property. c.

Ecology has determined the cleanup you selected for the property for the first release as described in the above (under the description of the property) 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 cleanup consisted of over excavation of soil, vapor extraction, and natural attenuation of groundwater. These actions have removed contaminants below cleanup levels and meets the minimum requirements in WAC 173-340-360(2)and do not either exacerbate conditions at the Site or preclude reasonable alternatives.

d. Cleanup of the Property.

Ecology has determined the cleanup you performed for the first release as described in the above (under the description of the property) meets the applicable Site cleanup standards within the property. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

The cleanup consisted of over excavation of soil, vapor extraction and natural attenuation of groundwater. These actions have removed contaminants below cleanup levels and meets the minimum requirements in WAC 173-340-360(2) and do not either exacerbate conditions at the Site or preclude reasonable alternatives. This cleanup does not affect the cleanup necessary to address the second release of PCE from an up-gradient source that has migrated onto the property because the two plumes are not comingled. Please refer to Enclosures C-1 and C-2 respectively for the location of up-gradient source and subsequent migration onto the property.

2. Cleanup of the Site as a whole.

Ecology has concluded that further remedial action under MTCA is still necessary elsewhere at the Site. In other words, while your cleanup constitutes the final action for the property, it constitutes only an "interim action" for Site No. 1 as a whole. There is also a second plume of PCE coming from Redmond Shopping Square property. Please refer to Enclosures B, C-1 and C-2 respectively for the two sites and the plume coming from off property sources identified as the Redmond Shopping Square property

Post-Cleanup Controls and Monitoring

3. Performance of conformational monitoring.

Conformational indoor air monitoring (Post NFA) is necessary at the property to confirm the long-term effectiveness of the cleanup. Conformational monitoring is to occur in the third year after the issuance of this NFA letter with the results sent to Ecology. Confirmational monitoring points and parameters to be measured are identified in Enclosure E and Table 1. The confirmation monitoring (Post NFA) is the basis for Ecology's five-year review period. Ecology has approved the monitoring plan you submitted. A copy of the plan is included in Enclosure F.

Periodic Review of Post-Cleanup Conditions

As noted above, Ecology will conduct periodic reviews of post-cleanup conditions at the property to ensure that they remain protective of human health and the environment. At the minimum, Ecology shall conduct a periodic review on the fifth year following the date of this NFA - April 1, 2016. If Ecology determines based on a periodic review that further remedial action is necessary at the property, Ecology will then withdraw this opinion.

Listing of the Site

Based on this opinion, we will update the status of remedial action at the Site on our database of hazardous waste sites. However, because further remedial action is still necessary elsewhere at the Site, we will not remove the Site from our lists of hazardous waste sites. The property will remain listed as part of the Site because the cleanup of the property does not change the boundaries of the Site. Even if you address the site as it relates to the first release due to property-related operational activities, further action will still be needed at the property to address the second release coming from an off-property and up-gradient location before the property can be de-listed from our database of hazardous waste 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**:

- Change the boundaries of the Site.
- 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 performed is substantially equivalent. Courts make that determination. See RCW 70.105D.080 and WAC 173-340-545.

Mr. Thomas Markl April 1, 2011 Page 7

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 cleaning up your property under the Voluntary Cleanup Program (VCP). We look forward to working with you to clean up the remainder of the Site.

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 360-407-7239 or by e-mail at mknu461@ecy.wa.gov.

Sincerely,

Michael Kuntz, P.G.,P.HG. HQ Toxics Cleanup Program

Michael Edunt

Enclosures:

A - Legal Description of the Property

B - Description and Diagrams of the Site (including the Property)

C - 1 Two Properties C - 2 Two Sites

D - Basis for the Opinion: List of Documents

E - Indoor Air Compliance

F - Conformational Monitoring Plan

CC:

Cliff Schmitt, Farallon Consulting Dolores Mitchell (without enclosures)

Enclosure A

Legal Description of the Property

LEGAL DESCRIPTION OF LOT 1 OF REDMOND CENTER

LOT 1:

All of Lot 8 and the south 70 feet of Lot 10 of the Plat of Redmond Center as recorded in volume 95 of Plats, Pages 94 through 97, in King County, Washington, and that portion of Lot 9 of said Plat of Redmond Center described as follows:

Beginning at the southwest corner of said Lot 9; thence north 0°49′10" east 70.00 feet along the west line of said Lot 9; thence south 89°10′50" east 120.24 feet to the point of curvature of a 300 foot radius curve to the right; thence easterly along said curve an arc distance of 92.83 feet to the point of tangency; thence south 71°27′06" east 84.57 feet; thence south 89°10′50" east 20 feet to the east line of said Lot 9; thence south 0°33′56" west 30 feet along said east line to the southeast corner of said Lot 9; thence north 89°10′50" west 312.28 feet along the south line of said Lot 9 to the point of beginning.

Subject to and together with easements of record.

Filed for record this 3rd day of April, 1991 at 1:42 p.m. in Book 79 of Surveys at page 161 at the request of BUSH, ROED & HITCHINGS, INC. 9104039002

COUNTY AUDITOR OR DIVISION OF RECORDS AND ELECTIONS Jane Hague-County Auditor or Carolyn Ableman-Superintendent of Records

*Source: Lot Line Revision LLR 90-01, Redmond Center. Prepared by Bush, Roed & Hitchings, Inc., Civil Engineers and Land Surveyors, 2009 Minor Avenue East, Seattle, Washington 98102.

Enclosure B

Description and Diagrams of the Property and Site

PROPERTY DESCRIPTION

The property is located at 15796 Redmond Way in Redmond, Washington in a single-story, commercial strip mall of masonry construction (Figure 2). According to King County Tax Assessor records, the strip mall building was constructed in various stages from 1966 through the early 1980s (King County, Washington 2005). Several remodels have occurred since the early 1980s, with the most recent being a significant expansion near the western end of the strip mall building in 2002. Asphalt-paved parking areas with landscaping strips are located north and south of the building. The strip mall is bordered on the west by 158th Avenue South and on the east by 160th Avenue Northeast. A new building was constructed on the southeastern portion of the property in 2009. The building houses commercial businesses. A sub slab depressurizing system has been installed and has operated continuously since July 24, 2009. Please refer to the enclosures for location of the property and buildings.

The Cleaning Center of Redmond has operated as a dry cleaning facility or dry cleaning drop-off facility from approximately 1990 to the present. In a January 2005 personal communication with Farallon, Ms. Carol Sama, a business consultant with a long-term relationship with Nelgroup Properties LC, stated that a steel pan for the containment of potential spills of PCE as placed beneath the dry cleaning machine at the Cleaning Center of Redmond in 1999 (Farallon 2005). Use of PCE was discontinued when the dry cleaning machine was removed in October 2002, at which time the facility became a drop-off only location for dry cleaning. Regular laundry services are still performed at the Cleaning Center of Redmond.

SITE DESCRIPTION

The site begins at the Former Cleaning Center of Redmond and continues west to the Sammamish River. According to the U.S. Geological Survey (1982) topographic map *Bellevue North, Washington* dated 1982, the Site is at an elevation of approximately 40 feet above mean sea level and is relatively flat. Regional topography in the vicinity slopes to the west. Please refer to enclosures for location of Site.

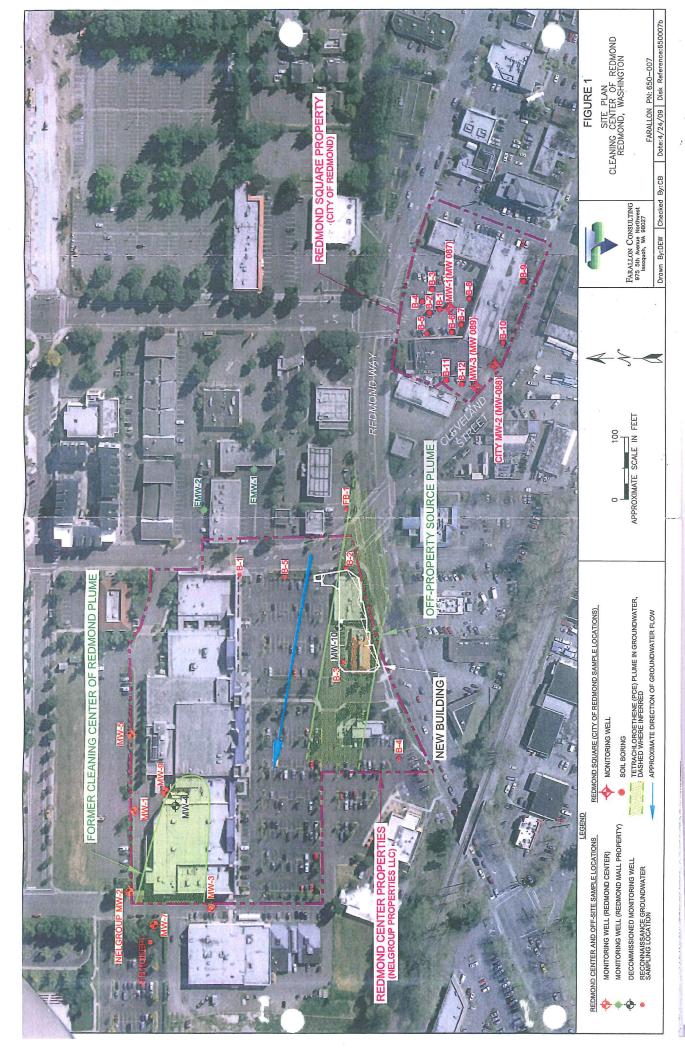
SECOND PLUME OF TETRACHLORETHYLENE PCE ON THE PROPERTY

A second plume of Tetrachloroethylene exists on the Cleaning Center of Redmond Property. The origin of the plume is very likley the former dry cleaning operation on the Redmond Square Property located to the east and up-gradient of the property. The extent of the plume on the Cleaning Center of Redmond Property is unknown. Please refer to enclosures for plume location and source.

Enclosure ROPERTY AND

Enclosure C-1

Two Properties



ENCLOSURE

Enclosure C-2

Two Sites

Two Sites - MC CSURE

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

Enclosure D

Basis for the Opinion List of Documents

- 1) VCP Application of September, 2004.
- 2) Work Plan for Indoor Air Quality Assessment, March 25, 2011
- 3) Requested Information, Farallon Consulting March 1, 2011
- 4) Response to January 11, 2011 e-mail, Farallon Consulting, January 18, 2011
- 5) Response to Comments, Farallon Consulting, December 28, 2010
- 6) Indoor Air Quality Assessment Results, Farallon Consulting, August 31, 2010
- 7) Request for Opinion Letter of Sufficiency of Cleanup, Farallon Consulting, August 31, 2010
- Work Plan for Indoor Air Quality Assessment, Faallon Consulting, December 31, 2009
- 9) Response to Opinion Letter, Farallon Consulting, November 20, 2009
- 10) Response to Request for Information, Farallon Consulting, July 31, 2009.
- 11) Soil Sampling Report, Cleaning Center of Redmond, Farallon Consulting, June 6, 2009.
- Site Closure Report, Cleaning Center of Redmond, Farallon Consulting, September 21, 2007.
- 13) Borings B-6 and B-7, March 9, 2007, Farallon Consulting.
- 14) Response to Ecology Letter, Farallon Consulting, February 7, 2007.
- 15) November 2006 Groundwater Monitoring Event, Farallon Consulting, January 9, 2007.
- 16) Summary of Meeting Results, Farallon Consulting, September 27, 2006.
- 17) Semiannual Groundwater Monitoring Event, Farallon Consulting, September 20, 2006.
- 18) Meeting of September 18, 2006.
- 19) Request for Additional Information, Farallon Consulting, April 11, 2006.
- Letter report of Iscoconcentration Map for August 18, 2004 Groundwater Sampling the Cleaning Center of Redmond.
- 21) Letter report of Iscoconcentration Map for February 27, 2004 Groundwater Sampling

 the Cleaning Center of Redmond.
- Groundwater and Air Discharge Monitoring Results the Cleaning Center of Redmond, October 27, 2003.

- 23) Groundwater Monitoring Results the Cleaning Center of Redmond July 17, 2001.
- 24) Phase II Environmental Assessment the Cleaning Centre of Redmond, March 22, 2001.
- 25) Groundwater Monitoring Results the Cleaning Center of Redmond, January 22, 2001.
- 26) Summary Remedial Investigation Preliminary Feasibility Results the Cleaning Center of Redmond, May 19, 2000.
- 27) Letter Report on Environmental Soil and Groundwater Soil Sampling the Cleaning Center of Redmond, March 18, 1999.

Enclosure E Indoor Air Compliance

INDOCE AWA COmpliance

Enclosure E

Table 1
Summary of Indoor Air Quality Assessment Results
Cleaning Center of Redmond
Redmond, Washington
Farallon PN: 650-001

		Analytical Results (micr	Analytical Results (micrograms per cubic meter)
		,	
Sample Location and Identification	Date Collected	Tetrachloroethene	Trichloroethene
nC	June 2007 Sampling Event		
Staples Building Women's Restroom (adjacent to floor drain)/1A-1	6/12/2007	1.4	<0.19
Staples Building Women's Restroom (breathing zone)/1A-2	6/12/2007	1.4	<0.19
nf.	June 2010 Sampling Event		
Staples Tech Solutions Center Desk #1	6/29/2010	<0.22	<0.18
Staples Womens Restroom #2	6/29/2010	<0.21	<0.17
Staples Roof #3	6/29/2010	<0.21	<0.17
Modified MTCA Method B Formula Values for Indoor Air for Con	Air for Commercial Exposure Scenario ¹	4.27	0.93
CHACIA			

NOTES:

< Indicates compound not detected at or above the stated laboratory reporting limit.

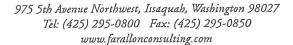
¹Washington State Department of Ecology Model Toxics Control Act Cleanup Regulation (MTCA) Method B Formula Values for Air, modified as follows in accordance with Equation 750-2 of Section 750(3)(b)(ii)(B) of Chapter 173-340 of the Washington Administrative Code:

Indoor air value is a time-weighted average assuming that an employee spends 0.25 hours/day (3 percent) in restroom and 7.75 hours/day (97 percent) in store area. Exposure Duration=250 days/year (5 days/week and 50 week/year work schedule) and a 25-year exposure period.



Enclosure F

Conformational Indoor Air Monitoring Plan (To be performed three years after issuance of the NFA letter with results forwarded to Ecology)





March 25, 2011

Mr. Michael Kuntz Washington State Department of Ecology PO Box 47600 Olympia, Washington 98504

RE: WORK PLAN FOR INDOOR AIR QUALITY ASSESSMENT

CLEANING CENTER OF REDMOND SITE

REDMOND, WASHINGTON FARALLON PN: 650-001

Dear Mr. Kuntz:

Farallon Consulting, L.L.C. (Farallon) has prepared this Work Plan for Indoor Air Quality Assessment on behalf of Nelson Real Estate Management LLC to describe procedures to assess indoor air quality for the presence of the dry cleaning solvent tetrachloroethene (PCE) and its degradation product trichloroethene (TCE) at the Staples tenant space located at the Redmond Center property, down-gradient from the Cleaning Center of Redmond at 15796 Redmond Way in Redmond, Washington. The Cleaning Center of Redmond Site is enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) and has been assigned VCP Identification No. NW1324. Prior cleanup actions at the Cleaning Center of Redmond were conducted in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

Ecology is preparing an Opinion Letter on the sufficiency of the cleanup action conducted to address the release of PCE at the Cleaning Center of Redmond. Farallon understands that the Opinion Letter will state that no further cleanup actions are required, contingent on conducting an indoor air monitoring event approximately 3 years after the Opinion Letter is issued to confirm that concentrations of PCE and TCE (if detected) in indoor air are protective of human health for commercial workers and the public. The purpose of this Work Plan for Indoor Air Quality Assessment is to describe the procedures for performing the required indoor air quality assessment.

Prior assessments of indoor air quality at the Staples tenant space were conducted by Farallon in June 2007 and June 2010 at the request of Ecology. These assessments were documented in the letter regarding Indoor Air Quality Assessment Results, Cleaning Center of Redmond Site, Redmond, Washington, Voluntary Cleanup Program Identification No. NW1324 dated August 31, 2010, prepared by Farallon. The Staples tenant space was selected for the assessments because it is the closest tenant space down-gradient from the Cleaning Center of Redmond with a perforation in the floor (floor drain) that potentially could allow concentrations of PCE and its degradation products to enter the building.



The Summa canisters will be packed in their original shipping containers, sealed with a custody seal, and sent within 3 days to Air Toxics Laboratory in Folsom, California for analysis.

Laboratory Analysis and Evaluation of Results

Air samples will be analyzed for PCE and TCE using modified U.S. Environmental Protection Agency Method TO-15 SIM. The reporting limits for PCE and TCE by this analytical method are approximately 0.2 micrograms per cubic meter, which is less than the commercial worker exposure scenario cleanup levels calculated using Equation 750-2 of WAC 173-340-750 and in accordance with the provisions of WAC 173-340-750(3)(c). The bases for calculating the commercial worker exposure scenario cleanup levels are presented in the Indoor Air Quality Assessment Results report and were agreed to by Ecology. The monitoring results will be evaluated and presented in a letter report.

CLOSING

If the Draft Vapor Intrusion Guidance is modified prior to the confirmation monitoring event required by Ecology in the Opinion Letter, this Work Plan for Indoor Air Quality Assessment will be revised as necessary to conform to the procedures specified in the modified Vapor Intrusion Guidance. Please contact the undersigned at (425) 295-0800 if you have questions or comments regarding this Work Plan.

Sincerely,

Farallon Consulting, L.L.C.

Clifford T. Schmitt, L.G., L.H.G.

Worl T. Sleman

Principal

Attachments: Attachment A, Standard Operating Procedure for Indoor Air Sampling

Attachment B, Standard Operating Procedure for Ambient Air Sampling

cc: Thomas L. Markl, CEO, Nelson Real Estate Management LLC

CTS:bjj

ATTACHMENT A STANDARD OPERATING PROCEDURE FOR INDOOR AIR SAMPLING U.S. ENVIRONMENTAL PROTECTION AGENCY ANALYTICAL METHOD TO-15

This standard operating procedure (SOP) contains the following sections:

- 1. Purpose
- 2. Application
- 3. References
- 4. Equipment and Supplies
- 5. Procedures
 - 5.1. Preparation of Buildings for Sampling
 - 5.2. Sampling Methodology
 - 5.3. Post-Sample-Collection Procedures
 - 5.4. Analysis
- 6. Decontamination
- 7. Documentation

1.0 Purpose

The purpose of this SOP is to provide personnel with the specific information needed to collect and document consistent and representative indoor air data.

2.0 Application

This SOP is to be followed by all personnel who collect indoor air samples associated with the Cleaning Center of Redmond Site in Redmond, Washington.

3.0 References

- Air Toxics LTD. Guide to Air Sampling and Analysis, Canisters and Tedlar Bags. Fourth Edition. Folsom, California. <www.airtoxics.com>.
- Massachusetts Department of Environmental Protection. 2002. *Indoor Air Sampling and Evaluation Guide*. Boston, Massachusetts. April.

5.2 Sampling Methodology

Time-integrated indoor air samples are collected using 6-liter Summa canisters prepared under negative pressure and laboratory-certified clean for the constituents of concern for the Cleaning Center of Redmond Site. The Summa canisters should be equipped with dedicated flow regulators set at the appropriate flow rate to allow sampling over the time period desired.

- Verify that the canister number engraved on the canister matches the canister number listed on the certified-clean tag attached to the canister to ensure that proper decontamination of the canister was completed.
- Set up the canister in the desired sample location.
- Verify that the canister valve is closed tightly and then remove the threaded cap at the top of the canister.
- Attach the flow regulator/pressure gauge to the top of the canister using a wrench to gently tighten it.
- Open the valve and record the pressure on the gauge as the "initial pressure" in the field notes and on the sample tag attached to the canister.
- Completely fill out the sample tag attached to the canister and record the following sample information in the field book:
 - Site name;
 - Sample identification;
 - Sample start date;
 - Sample start time;
 - Location of sample (show on building floor plan or sketch map);
 - Initial pressure of canister; and
 - Canister number.
- After sampling begins and the canister is verified to be operating correctly, leave the canister to fill.
- Return to check the canisters to ensure that they are operating properly. Depending on the length of the sampling period selected, it will be necessary to return 30 minutes to 1 hour prior to the end of the sampling period. It is necessary to check the canister prior to the complete sampling period because the accuracy of the flow regulators can vary slightly, causing the canisters to fill faster than expected. To check the sample collection progress, complete the following:
 - Record the gauge pressure in the field book. The final pressure at the end of sampling should be approximately -5 to -6 inches of mercury. If the canister has already reached this point, sampling is complete and this pressure should be recorded as the "final pressure" on the sample tag and in the field book. If the pressure is not yet at this level, the canister should be left to continue filling.

ATTACHMENT B STANDARD OPERATING PROCEDURE FOR AMBIENT AIR SAMPLING

WORK PLAN FOR INDOOR AIR QUALITY ASSESSMENT Cleaning Center of Redmond Redmond, Washington

Farallon PN: 650-001

- U.S. Environmental Protection Agency. 1999. *Method TO-15*. EPA/625/R-96/010b. Cincinnati, Ohio. January.
- Washington State Department of Ecology (Ecology). 2009. Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action. October.

4.0 Equipment and Supplies

The following equipment and supplies are necessary to properly conduct indoor air sampling:

- A sufficient number of 6-liter Summa canisters, appropriate filters, and flow controllers to collect samples required by the Work Plan;
- Equipment required to collect samples using 6-liter Summa canisters, including appropriate wrenches and pressure gauges; and
- Shipping package for the Summa canisters.

5.0 Procedures

5.1 Sampling Locations

Ambient air samples usually are collected near buildings where indoor sampling is occurring. Sample collection points should be selected so that intake occurs at least 6 feet above ground surface and upwind of the building undergoing indoor air sampling.

5.2 Sampling Methodology

Time-integrated ambient air samples are collected using 6-liter Summa canisters prepared under negative pressure and certified clean for the constituent of concern for the Cleaning Center of Redmond Site. The Summa canisters should be equipped with dedicated flow regulators set at the appropriate flow rate to allow sampling over the time period desired.

- Verify that the canister number engraved on the canister matches the canister number listed on the certified-clean tag attached to the canister to ensure that proper decontamination of the canister was completed.
- Set up the canister in the desired sample location.
- Verify that the canister valve is closed tightly and then remove the threaded cap at the top of the canister.
- Attach the flow regulator/pressure gauge to the top of the canister using a wrench to gently tighten it.
- Open the valve and record the pressure on the gauge as the "initial pressure" in the field notes and on the sample tag attached to the canister.
- Completely fill out the sample tag attached to the canister and record the following sample information in the field book:
 - Site name;

Ensure that documentation of this certification is included on a tag attached to the canister and in the paperwork that accompanies the canister shipment from the laboratory.

7.0 Documentation

Record all field activities, environmental and building conditions, and sample documentation in the field notebook.