



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 7, 2007

Mr. Gerald Ostroff
PMB 488, 218 Main Street
Kirkland, Washington 98033-6108

**Re: Further Action Determination WAC 173-340-515(5) for the following
Hazardous Waste Site:**

Spic'n Span Cleaners, Inc.
652 South Dearborn Street,
Seattle, Washington 98134
Facility/Site No. 54766547
VCP No.: NW 0945

Dear Mr. Ostroff:

Thank you for submitting your independent remedial action report for the referenced site for review by the Washington State Department of Ecology (Ecology or we) under the Voluntary Cleanup Program (VCP). We appreciate your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter is an advisory opinion about whether further remedial action is necessary at the Site to meet the substantive requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC. We are providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the State under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The State does not have authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding the Site:

- 1) VCP Application of August 2002 with Ecology File Information.
- 2) Proposal for Remediation Services Spic 'n Span Cleaners, Aspect Consulting, August 30, 2006

- 3) Soil and Groundwater Sampling Analysis and Preliminary Engineering Evaluation Report, Spic 'n Span Cleaners, Hart Crowser, December 12, 2005.
- 4) Confirmational Monitoring Report for October 2004, Spic 'n Span Cleaners, Hart Crowser, November 4, 2004.
- 5) Confirmational Monitoring Report for April and July 2004 Monitoring Events, Spic 'n Span Cleaners, Hart Crowser, August 26, 2004.
- 6) Operation and Monitoring Report for December 2003 through January 2004, Spic 'n Span Remediation System, Hart Crowser, March 12, 2004.
- 7) Operations and Monitoring Report for September through November 2003, Spic 'n Span Remediation System, Hart Crowser, December 2, 2003.
- 8) Operation and Monitoring Report for October 2002 through May 2003, Spic 'n Span Remediation System, Hart Crowser, June 25, 2003.
- 9) Third Quarter of Operation Monitoring Report and Planning-Level Cost for Next Year, Spic 'n Span Remediation System, Hart Crowser, December 16, 2002.
- 10) Second Quarter of Operation and Monitoring Report, Spic 'n Span Remediation System, Hart Crowser, August 21, 2002.
- 11) Notice of Construction and Application for Approval, Spic 'n Span Cleaners, Hart Crowser, May 4, 2001.
- 12) Fourth Quarter Groundwater Monitoring Results. Spic 'n Span Cleaners, Hart Crowser, April 30, 2001.
- 13) Construction Startup, and First Quarter of Operation Monitoring Report Spic 'n Span Remediation System, Hart Crowser, April 11, 2002.
- 14) Remediation System Design Report and Construction Documents, Hart Crowser, April 19, 2001.
- 15) Third Quarter Groundwater Monitoring Results. Spic 'n Span Cleaners, Hart Crowser, December 11, 2000.
- 16) Second Quarter Groundwater Monitoring Results. Spic 'n Span Cleaners, Hart Crowser, October 4, 2000.
- 17) Well Installation and Groundwater Monitoring Report, Spic 'n Span Cleaners, Hart Crowser. June 15, 2000.
- 18) Early Notice Letter, Ecology, May 10, 1999.
- 19) Mineral Spirit UST Closure Report, Spic 'n Span Cleaners, 652 South Dearborn Street, Seattle, Hart Crowser, December 11, 1998.
- 20) Letter Report, Spic 'n Span Cleaners, Hart Crowser, October 31, 1997.
- 21) Environmental Site Assessment Report Spic 'n Span Cleaners, Seattle, Hart Crowser, July 31, 1997.

- 22) Environmental Site Assessment and Subsurface Soil Investigation Spic 'n Span Cleaners, 652 South Dearborn Street, Seattle DHL Environmental Consulting, June 16, 1997.

The documents listed above will be kept in the Central Files of our Northwest Regional Office (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at (425) 649-7239.

The Site is defined by the following releases:

- Mineral Oil, tetrachloroethylene (PCE), trichloroethane (TCE) ethyl benzene, toluene, cis-1, 2 dichloroethylene, 1,2 dichlorobenzene, 1,3 dichlorobenzene, 1,4 dichlorobenzene, xylenes, in soil.
- Mineral Oil, tetrachloroethylene (PCE), trichloroethane (TCE) ethyl benzene, cis-1, 2 dichloroethylene, 1, 1, 2, 2-tetrachloroethane, chloroform, vinyl chloride, and xylenes, in groundwater.

The Site is more particularly described in Enclosures A through D which include a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of the independent remedial action report and supporting documentation listed above, we have determined that the independent remedial action(s) performed at the Site **are not sufficient** to meet the substantive requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing any of the contamination at the Site. Therefore, pursuant to WAC 173-340-515(5), we are issuing this opinion that **further remedial action is necessary** at the Site under MTCA.

The actions to date are considered an interim action under WAC 173-340-430. Comments in *italic* refer to the proposed work in the August 30, 2006 document. These comments **are not** an Ecology approval or concurrence with the proposed work.

The Site does not meet the requirements for a remedial investigation under WAC 173-340-350 (7) because of the following:

- a) A map identifying the property boundaries of the subject property of the VCP application is not in the file. The scale map should show the locations of remedial actions performed and the locations of adjacent properties, streets, and alleys.
- b) The tax parcel number(s) of the subject property of the VCP application is not in the file.
- c) A concise history of the remedial action beginning with the 1997 assessment and investigation up to the 2005 soil and groundwater evaluation is necessary.
- d) The vertical and horizontal extent of Mineral Oil, tetrachloroethylene (PCE), trichloroethane (TCE) ethyl benzene, toluene, cis-1,2 dichloroethylene, 1,2 dichlorobenzene, 1,3 dichlorobenzene, 1,4 dichlorobenzene, xylenes, in soil above

Method A levels, has not been delineated on a map or cross-section. *It is not apparent how three soil samples from different soil types submitted to TOC analysis will be used to develop a soil to groundwater cleanup level. What is TOC analysis? If three samples of mineral oil are collected for calculating a soil to groundwater cleanup level with Ecology's MTCATPH 11.0, each sample must yield a cleanup level. Three cleanup levels will be calculated and the median cleanup level will be selected as being representative.*

- e) The vertical and horizontal extent of Mineral Oil, tetrachloroethylene (PCE), trichloroethane (TCE) ethyl benzene, Cis-1,2 dichloroethylene, 1,1,2,2-tetrachloroethane, chloroform, vinyl chloride, and xylenes, in groundwater above Method A levels, has not been delineated on a map or cross-section. *Groundwater data from direct push borings is "screening level" data and is not reliable for compliance groundwater monitoring under WAC 173-340-410.*

It is significant that monitoring well No. 4 - an off-property well - has shown the highest concentration of groundwater contamination. Please refer to Table 2 in the April 30, 2001, report.

- f) The groundwater flow direction is not established: the depicted flow direction in Figure 3 of the December 12, 2005, report is likely to the southwest because the axis of the well locations runs northwest to southwest. Also, the date of measurement is not shown, and a single measurement does not establish flow direction in the water table aquifer. Determining the flow direction requires at a minimum, groundwater flow maps with contours of equal hydraulic potential supported by groundwater elevation data for the seasonal high and low groundwater conditions. Finally, the construction details have a bearing on water level measurement, and the details to the monitoring wells are not complete. (Refer to next comment for completion.)
- g) The well completion logs for monitoring wells MW-1, MW-2, MW-3, and MW-4, shown on Figure 3 of the December 12, 2005, report, are contained in the June 15, 2000, report. However, the well completion logs for monitoring wells VE-2, VE-1 AS-B, AS-A, MW-5, and MW-6 are not found. Please compile in one location in the file, all well completion logs for monitoring wells to be used.

The soil vapor pathway has not been addressed under WAC 173-340-740 (3) (iii) (C) (III). *In evaluating the soil vapor pathway, the appropriate place for a soil gas sample is beneath the structure of concern. If the gas sample results are to be correlated with groundwater contamination data, the samples should be taken in the immediate vicinity of the water table. It is very likely that the correlation coefficient for soil gas and groundwater contamination will be low. The purpose of correlation is not made clear. Finally, there are many versions of the "Johnson Ettinger Model" some of them are outdated.*

Any further soil sampling at the Site should follow the protocols of our Implementation Memorandum # 5 - Collecting and Preparing Soil Samples for VOC Analysis, June 14, 2004.

Mr. Gerald Ostroff
May 7, 2007
Page 5 of 5

Ecology is willing to meet with you or discuss over the telephone, proposed work at the site.

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The State, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the State, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, we appreciate your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP. Assistance can include identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or performed at the Site meet those requirements.

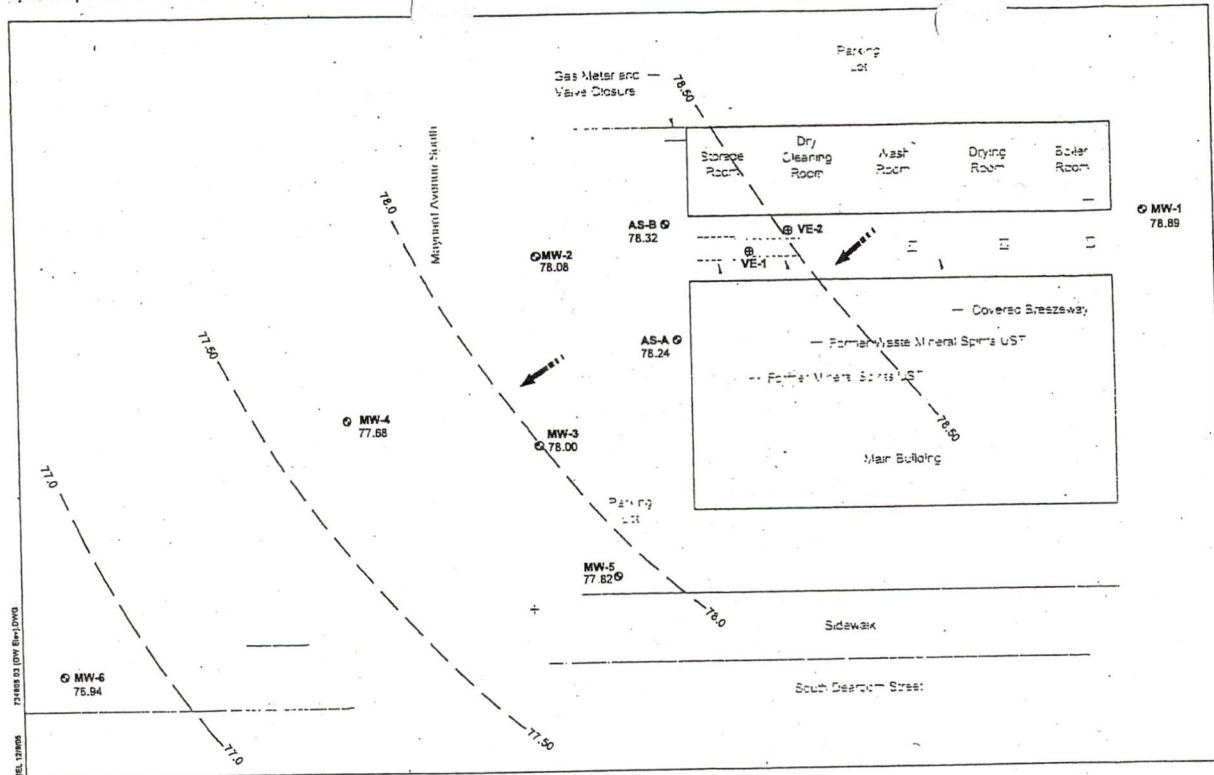
If you have any questions regarding this opinion, please contact me at (360) 407-7244.

Sincerely,

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

Enclosures A through D

Groundwater Elevation Contour Map
Spic 'n Span Cleaners Site



- | | | | |
|-------|--|---|--|
| MW-1 | Monitoring Well Location and Number | - | Drain |
| VE-1 | Vapor Extraction Well Location and Number | + | Site Elevation Reference Datum of 100.0 Feet (Top of Fire Hydrant) |
| 78.89 | Relative Groundwater Elevation in Feet | | |
| 78.0 | Relative Groundwater Elevation Contour in Feet | | |
| ← | Approximate Groundwater Flow Direction | | |

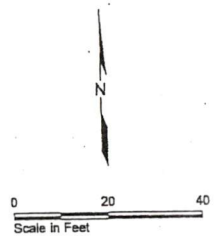
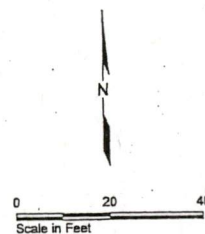


EXHIBIT A



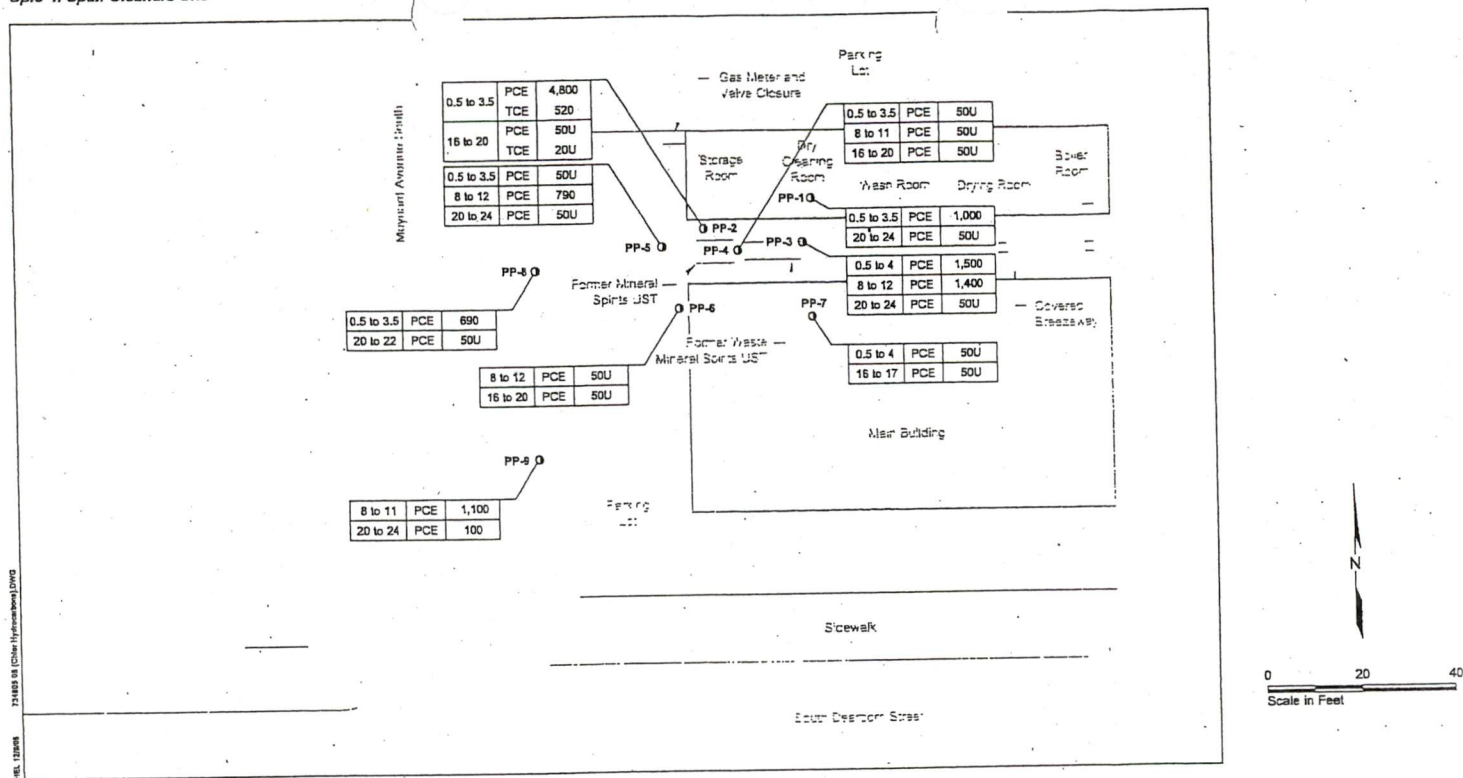
MW-1 ⊗ Monitoring Well Location and Number
VE-1 ⊕ Vapor Extraction Well Location and Number
- Drain
+ Site Elevation Reference Datum of 100.0 Feet
(Top of Fire Hydrant)



HARTCROWSER
7348-05 12/05
Figure 7

EXHIBIT B

Chlorinated Hydrocarbons in Soil Samples
Spic 'n Span Cleaners Site



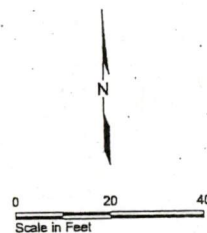
0.5 to 3.5 PCE 4,800 — Concentration in µg/kg
 — Constituent Tested
 — Sample Depth in Feet
 PCE Tetrachloroethene
 TCE Trichloroethene
 U Not Detected at Detection Limit Indicated

PP-1 ○ Push Probe Location and Number (Hart Crowser, June 2005)
 — Drain

HART CROWSER
 7348-05 12/05
 Figure 5

EXHIBIT C

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DMD (v1.0.0) (v1.0.0) (v1.0.0)



PP-10 Push Probe Location and Number (Hart Crowser, June 2005)



HARTCROWSER
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Figure 4

EXH-B. T O