

**WORKSHEET 1**  
**SUMMARY SCORE SHEET**

Site Name/Location (City, County, Section/Township/Range):

Southgate Laundry  
1020 South 3rd Avenue  
Yakima, WA 98902  
SE1/4NE1/4 Section 25 T13N R18E

Site Description (Include management areas, compounds of concern, and quantities):

The site is an active dry cleaning facility which has operated since 1976. Tetrachloroethene (PCE), the compound of concern, is used in the dry cleaning process at the rate of 400 gallons per year. New solvent is stored in a 55-gallon drum. Solvent is pumped from the drum into the reservoir of the dry cleaning machine. The solvent is cycled through carbon filters, the cleaning unit, and a condenser to reclaim solvent from vapors. Gaseous discharges from the condenser are treated in a carbon stripper unit, then discharged to the atmosphere. During a site inspection by EPA contractor Ecology and Environment in 1989, no spills or potential releases of solvents were noted at the facility, with the exception of a strong solvent odor detected in the work area. Information from facility representatives indicated the carbon stripper unit was not regenerated or otherwise maintained. Spent filters are disposed at a landfill and wastewater is discharged to the city sewer.

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

**ROUTE SCORES:** (

Surface Water/Human Health:	<u>3.8</u>	Surface Water/Environ.:	<u>3.8</u>
Air/Human Health:	<u>24.8</u>	Air/Environmental:	<u>15.2</u>
Ground Water/Human Health:	<u>18.0</u>		

**OVERALL RANK:** \_\_\_\_\_

Rev. 5/31/91





WORKSHEET 3  
SUBSTANCE CHARACTERISTICS WORKSHEET  
FOR MULTIPLE UNIT/SUBSTANCE SITES

Combination 1      Combination 2      Combination 3

Unit:

Substance:

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SURFACE WATER ROUTE

Human Toxicity Value:

Environ. Toxicity Value:

Containment Value:

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Surface Water Human  
Subscore:

Surface Water Environ.  
Subscore:

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AIR ROUTE

Human Toxicity/Mobility  
Value:

Environ. Toxicity/  
Mobility Value:

Containment Value:

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Air Human Subscore:

Air Environ. Subscore:

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GROUND WATER ROUTE

Human Toxicity/  
Mobility Value:

Containment Value:

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Ground Water Subscore:

**WORKSHEET 4**  
**SURFACE WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

Substance	Drinking Water Standard (ug/l)		Chronic Toxicity (mg/kg/day)		Acute Toxicity (mg/kg-bw)		Carcinogenicity (WOE PF*)	
	Val.	Val.	Val.	Val.	Val.	Val.	Val.	
1. PCE	5	8	.01	3	800	5	B2 .051	4
2.								
3.								
4.								
5.								
6.								

\*Potency Factor Source: 5  
Highest Value: 8  
+2 Bonus Points? 0  
Final Toxicity Value 8

**1.2 Environmental Toxicity**

Substance	Acute Criteria (ug/l)	Non-human Mammalian Acute Toxicity		Source: <u>6</u>	Value: <u>2</u>
		(mg/kg)	Value		
1. PCE	5280	800	2		
2.					
3.					
4.					
5.					
6.					

**1.3 Substance Quantity** Source: 1 Value: 1

Explain basis: 1 drum = 55 gallons  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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 Washington State  
 Department of Ecology.

WORKSHEET 4 (CONTINUED)  
SURFACE WATER ROUTE

2.0 MIGRATION POTENTIAL

- 2.1 Containment Source: 1 Value: 5  
Explain basis: C. Drums. 5 (no spill containment) +  
0 (single layer)
- 2.2 Surface Soil Permeability: high. Source: 3 Value: 1
- 2.3 Total Annual Precipitation: 7.2 inches Source: 3 Value: 1
- 2.4 Max. 2-Yr/24-hour Precipitation: 1.0 inches Source: 3 Value: 1
- 2.5 Flood Plain: not in flood plain. Source: 3 Value: 0
- 2.6 Terrain Slope: less than 1 % Source: 3 Value: 1

3.0 TARGETS

- 3.1 Distance to Surface Water: 6800 feet. Shano ditch Source: 7,8 Value: 2
- 3.2 Population Served within 2 miles: √pop.= 0 Source: 3 Value: 0
- 3.3 Area Irrigated within 2 miles: 0.75/no. acres= 5 Source: 3 Value: 5
- 3.4 Distance to Nearest Fishery Resource: 1.5 miles. Source: 3 Value: 3
- 3.5 Distance to, and Name(s) of, Nearest Sensitive Environment(s) Wide Hollow Creek 1.5 miles Source: 3,7,8 Value: 3  
Lions Park 3500 feet (upgradient)  
Larson Park 4000 feet (upgradient)  
Yakima River 2 miles

4.0 RELEASE

Explain basis for scoring a release to surface water: Documentation of surface water release was not found. Source:      Value: 0

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WORKSHEET 5 (CONTINUED)  
AIR ROUTE

1.6 Substance Quantity: 1 drum = 55 gallons Source: 1 Value: 1  
Explain basis: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 MIGRATION POTENTIAL

2.1 Containment: A.Above-ground container. Poorly fitted joints (loose fitting metal lid). Source: 1 Value: 8  
\_\_\_\_\_

3.0 TARGETS

3.1 Nearest Population: adjacent. Source: 3 Value: 10

3.2 Distance to, and Name(s) of, Nearest Sensitive Environment(s) Lions Park 3500 feet Source: 3,7,8 Value: 3  
Larson Park 4000 feet  
Wide Hollow Creek 1.5 miles  
Yakima River 2 miles

3.3 Population within 0.5 miles: √population= 57 Source: 3 Value: 57

4.0 RELEASE

Explain basis for scoring a release to air: Strong PCE odor detected inside building during inspection. Doors are opened for ventilation. Source: 1 Value: 5  
\_\_\_\_\_  
\_\_\_\_\_

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**WORKSHEET 6  
GROUND WATER ROUTE**

**1.0 SUBSTANCE CHARACTERISTICS**

**1.1 Human Toxicity**

Substance	Drinking Water Standard		Chronic Toxicity		Acute Toxicity		Carcinogenicity	
	(ug/l)	Val.	(mg/kg/day)	Val.	(mg/kg-bw)	Val.	WOE PF*	Val.
1. PCE	5	8	.01	3	800	5	B2 .051	4
2.								
3.								
4.								
5.								
6.								

\*Potency Factor Source: 5  
Highest Value: 8  
+2 Bonus Points? 0  
Final Toxicity Value 8

1.2 Mobility (Use numbers to refer to above listed substances)  
 Cations/Anions \_\_\_\_\_ Source: 5 Value: 3

OR  
 Solubility(mg/l) 1. = 150

1.3 Substance Quantity Source: 1 Value: 1  
 Explain basis: 1 drum = 55 gallons

**2.0 MIGRATION POTENTIAL**

2.1 Containment Source: 1 Value: 3  
 Explain basis: C. Above-ground container. 3 (no containment) + 0 (impervious base) + 0 (single layer) = 3 containment value

2.2 Net Precipitation: 1.7 inches Source: 4 Value: 1

2.3 Subsurface Hydraulic Conductivity: .001 cm/sec Source: 3 Value: 3

2.4 Vertical Depth to Ground Water: 16 feet Source: 3 Value: 8

WORKSHEET 6 (CONTINUED)  
GROUND WATER ROUTE

3.0 TARGETS

- 3.1 Ground Water Usage: public. no alternate. Source: 3 Value: 9
- 3.2 Distance to Nearest Drinking Water Well: 4800 ft Source: 9 Value: 2  
WR No. 10733
- 3.3 Population Served within 2 Miles: √population= 70 Source: 3 Value: 70
- 3.4 Area Irrigated by (Groundwater) Wells  
within 2 miles: 0.75√no.acres= 39 Source: 3 Value: 39

4.0 RELEASE

Explain basis for scoring a release to ground water: Documentation of a release to groundwater not found. Source:      Value: 0

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SOURCES USED IN SCORING

1. Site Inspection Report, Ecology and Environment, 1989.
2. Data Gap Identification Report, SAIC, February 1991.
3. Site Hazard Assessment Data Collection Summary Sheets, SAIC, February 1991.
4. Washington Climate, Cooperative Extension Service, Washington State University.
5. Physical, Chemical, Toxicological and Regulatory Values for Priority Pollutants, Washington Department of Health, March 1991.
6. Quality Criteria for Water 1986, US EPA.
7. Yakima East Quadrangle Map, USGS 7.5 Minute Topographic Series.
8. Yakima West Quadrangle Map, USGS 7.5 Minute Topographic Series.
9. Recorded Water Rights of the Department of Ecology Region 4, 6/21/90.
- 10.

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