CSID 1340

WORKSHEET 1
SUMMARY SCORE SHEET

Note: This document currently has no provision for sediment route scoring.

Site Name/Location (Street, City, County, Section/Township/Range).
Sprague Pest Control
35 West Pacific Ave.
Spokane, WA 99204
NE1/4 of Section 19, Township 25N, Range 43E.

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

The site is located near the southeast corner of the intersection of Browne Street and Pacific Avenue just east of the central downtown area of Spokane, Washington. The site is approximately 7500 square feet with a structure on the north east occupying 660 square feet. The site is located in a commercial/residential area. The properties in the vicinity of the site are primarily used for office and multifamily dwellings.
Current use of the site is limited to the storage of equipment used by Sprague Pest Control including the storage of various containers of pesticide products. The lot is fenced to limit access.

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):

Past handling of pesticides has resulted in soil contamination from the insecticides chlordane and heptachlor. Shallow soils are affected to some degree throughout the site, with relatively high concentrations reported near the northwest corner of the concrete driveway and along the building to the west. No indication of remedial activities have been received by this agency at this assessment time.

ROUTE SCORES:

Surface Water/Human Health: NS Surface Water/Environ.: NS

Air/Human Health: 31.7 Air/Environmental: NS

Ground Water/Human Health: 44.0

OVERALL RANK: #3

Rev. 3/10/93

WORKSHEET 2
ROUTE DOCUMENTATION

1. **SURFACE WATER ROUTE. (NOT APPLICABLE)**
   There is no surface water drainage to or from the site. The surface water route will not be scored

2. **AIR ROUTE.**

List those substances to be considered for scoring: **Source: 1**
Chlordane, Heptachlor, and Heptachlor Epoxide

Explain basis for choice of substance(s) to be used in scoring.
Laboratory analysis of soil samples from this site confirm contamination of the referenced substances exceeding MTCA standards *(see below)

List those management units to be considered for scoring: **Source: 1**
Contaminated surface and subsurface soils

Explain basis for choice of unit to be used in scoring.
This site is scored on the basis of the above contaminants being detected at concentrations exceeding MTCA cleanup levels in soil

*Chlordane	up to 1270 ppm
Heptachlor	up to 77.3 ppm
Heptachlor Epoxide	up to 201 ppm

WORKSHEET 2 (CONTINUED)
ROUTE DOCUMENTATION

3. GROUND WATER ROUTE

List those substances to be considered for scoring: **Source: 1**
Chlordane, Heptachlor, and Heptachlor Epoxide

Explain basis for choice of substance(s) to be used in scoring.
Laboratory analysis of soil samples from this site confirm contamination of the referenced substances exceeding MTCA standards *(see below)

List those management units to be considered for scoring: **Source: 1**
Contaminated surface and subsurface soils

Explain basis for choice of unit to be used in scoring.
This site is scored on the basis of the above contaminants being detected at concentrations exceeding MTCA cleanup levels in soil.

*Chlordane	up to 1270 ppm
Heptachlor	up to 77.3 ppm
Heptachlor Epoxide	up to 201 ppm

WORKSHEET 5
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction (WARM Scoring Manual) - Please review before scoring

1.2 Human Toxicity

Substance	Air Standard (ug/m^3)	Val.	Acute Toxicity (mg/m^3)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcino-genicity WOE	PF*	Val.
1.Chlordane	0.0027	10	*	ND	*	ND	*	*	ND
2.Heptachlor	0.00077	10	*	ND	*	ND	B2	4.5	6
3.Heptachlor Epoxide	*	ND	*	ND	*	ND	B2	9.1	6
4.									
5.									
6.									

*Potency Factor

Source: 1, 2, 3
Highest Value: 10
+2 Bonus Points? 2
Final Toxicity Value: 12

1.3 Mobility (Use numbers to refer to above listed substances)

1.3.1 Gaseous Mobility

Vapor Pressure(s) (mmHg): Not Scored Non-Aqueous Source: 3
Value: 0

1.3.2 Particulate Mobility

Soil type: Hesseltine silt loam/Garrison gravelly loam Source: 5
Erodibility: >30 - 80 Value: 1
Climatic Factor: 1 - 10

1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7) equals **Final Matrix Value: 6**

1.5 Environmental Toxicity/Mobility Source: 3

Environmental Toxicity Not Applicable in accordance with WARM

Non-human Mammalian Acute (Table A-7)

Substance	Inhal. Toxicity (mg/m^3)	Value	Mobility (mmHg)	Value	Matrix Value
1.					
2.					
3.					
4.					
5.					
6.					

Highest Environmental Toxicity/Mobility Matrix Value
(From Table A-7) equals **Final Matrix Value: 0**

WORKSHEET 5 (CONTINUED)
AIR ROUTE

1.6 Substance Quantity: 68 x 30 = 2040 sf Source: 1, 3 **Value: 4**
Explain basis: Based on surface area of exposed soil

2.0 MIGRATION POTENTIAL

2.1 Containment: Spills, Discharges, and Contaminated Soil Source: 1, 3 **Value: 10**

3.0 TARGETS

3.1 Nearest Population: <1000 ft Source: 1 **Value: 10**

3.2 Distance to, and Name(s) of, Nearest Sensitive Environment(s) 2800 ft to River Front Park (city municipal) Source: 6 **Value: 0**
Not Scored due to absence of environmental toxicity data

3.3 Population within 0.5 miles: √pop. = √5101 = 71.4 Source: 10 **Value: 71**

4.0 RELEASE

Explain basis for scoring a release to air: Source: 1 **Value: 0**
None disclosed

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard (ug/l)	Val.	Acute Toxicity (mg/kg-bw)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcino-genicity WOE	PF*	Val.
1.Chlordane	2	8	200	5	6E-05	8	B2	1.3	6
2.Heptachlor	0.4	10	40	10	0.0005	5	B2	4.5	6
3.Heptachlor Epoxide	0.2	10	15	10	*	ND	B2	9.1	6
4.									
5.									
6.									

*Potency Factor

Source: 1, 2, 3
Highest Value: 10
+2 Bonus Points? 2
Final Toxicity Value: 12

1.2 Mobility (Use numbers to refer to above listed substances)
Cations/Anions:_____ Source: 2 **Value: 0**
OR
Solubility(mg/l): 1=5.6E-01=0; 2=1.8E-01=0; 3=3.5E-01=0;

1.3 Substance Quantity Source: 1, 3 **Value: 7**
Explain basis: Estimation based on surface area times 3 foot depth using table GW-7 of WARM . Therefore, 68'x30'x3'=6,120 sqft. 225.66 cubic yards

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 1, 3 **Value: 10**
Explain basis: Spills, Discharges, and Contaminated Soils

2.2 Net Precipitation: 7.2 inches Source: 4 **Value: 1**

WORKSHEET 6 (CONTINUED)
GROUND WATER ROUTE

2.3 Subsurface Hydraulic Conductivity: Hesseltine silt loam/Garrison gravelly loam
$>10^{-5}$ t0 10^{-3} (cm/sec) Source: 5 **Value: 3**

2.4 Vertical Depth to Ground Water: >50 - 100 feet Source: 6, 7 **Value: 4**

3.0 TARGETS

3.1 Ground Water Usage: Fed - sole source aquifer Source: 6 **Value: 10**

(Max. = 10)

3.2 Distance to Nearest Drinking Water Well: > 5,000 ft Source: 7, 8, 9 **Value: 1**

(Max. = 5)

3.3 Population Served within 2 Miles: √pop. = √ = >10,000 Source: 9 **Value: 100**

(Max. = 100)

3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: 0.75√no. acres = 30.5 Source: 8 **Value: 4**
0.75√ = 0.75 ( ) = 4.1

(Max. = 50)

4.0 RELEASE

Explain basis for scoring a release to ground water: NONE Source: 1 **Value: 0**

(Max. = 5)

SOURCES USED IN SCORING

1. Level I Environmental Site Assessment
   Sprague Pest Control
   35 West Pacific Avenue, Spokane, WA
   Project # X96070 March through September 1996
   Budinger and Associates

2. Toxicology Data Base Washington Ranking Method (WARM)

3. WARM Scoring Manual

4. Washington Climate, Spokane County, WSU Dept. of Agriculture

5. Soil Survey of Spokane County Washington. USDA Soil Conservation Svc.

6. Aquifer Sensitive Overlay Zone Map, Spokane County, Washington

7. Washington State Department of Ecology (Ecology) Well Logs

8. Ecology Water Resource Inventory Area (WIRA) System Data Base

9. Washington State Department of Health Drinking Water Information Network

10. 1996 Claritas Census Projection for Spokane, WA.