CSID 5075

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, TCP ID Number):

Seattle Steam Company Western Ave.
1319 Western Ave.
Seattle, WA 98104
King County
T-25N, R-4E, Sec-31
TCP ID N-17-5023-000 2243
Longitude: 122* 20' 22.16"
Latitude: 47* 36' 24.23"
Site scored/ranked: February 16, 1999 update

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

Seattle Steam Company, Western Avenue (SSCWA), is located in a commercial and residential area of downtown Seattle. To the west and south of the site are parking lots, to the east is Western Avenue, and to the north of the site is a large commercial storage building. The SSCWA plant is used to produce commercial steam supplies for other buildings in the downtown Seattle area. The plant has been in continuous operation since the early 1900's. There are several large underground storage tanks on the site that have been used through the years for supplying different types of fuel for the steam boilers at the site. The boilers now use Natural Gas as a fuel source, but several of the underground storage tanks remain to provide emergency fuel (Bunker "C" oil) to the boilers in case of a disruption of the natural gas supply. The entire property is covered with asphalt and cement pavement. Municipal sewer and water systems serve the area. Due to reporting by the Seattle Steam Company, this site was added to the Washington State Department of Ecology (Ecology) "Confirmed and Suspected Contaminated Sites" list on March 1, 1988.

During the winter of 1990, The Seattle Steam Company hired Environmental Consultant firm of Dalton, Olmsted & Fuglevand, Inc., to conduct an underground storage tank evaluation on two Seattle Steam plants (Western Ave. and Post Ave.). During this study, seventeen monitoring wells and or borings were completed to examine soil and groundwater quality in the area. Of the soil samples that were examined, Total Petroleum Hydrocarbon (TPH) levels ranged from not detectable to 36,000 ppm. Visual observations of the samples showed a material that was jet black and very sticky. This appearance would be consistent with Bunker "C" oil. Groundwater samples showed TPH levels of not detectable to 65 ppm. Both soil and groundwater levels of TPH are above the Model Toxics Control Act (MTCA) Method cleanup levels.

Carsten Thomsen of the Seattle-King County Department of Public Health (SCKDPH) conducted a site hazard assessment visit on December 1, 1998. After talking on the phone about the property to Paul Prescott, the Chief Engineer of Seattle Steam, an examination of the SSCWA property was completed. No visual evidence of contamination was noted during the visit.

On the basis of this SHA, completed by the SKCDPH's Environmental Health Division, this site will be scored for only the groundwater route, under the MTCA regulations. The site will only be scored for groundwater due to the fact that all of the contaminated soils and groundwater are buried under 8-10 feet of sand, fill and asphalt.

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): N/A

PATHWAY SCORES:

Surface Water/Human Health: N/A

Surface Water/Environ.: N/A

Air/Human Health: N/A

Air/Environmental: N/A

Ground Water/Human Health: 9.3

OVERALL RANK: 5

WORKSHEET 2
ROUTE DOCUMENTATION

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source:2

TPH-Bunker Oil

Explain basis for choice of substance(s) to be used in scoring.

The above substance concentration is above the MTCA Method A cleanup standard.

List those management units to be considered for scoring: Source:2

Sub-surface soil contamination.

Explain basis for choice of unit to be used in scoring.

Sub-surface soil has no containment.

WORKSHEET 3
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.TPH-Bunker Oil	ND	--	ND	--	2.0	1	ND	--	--
2.									
3.									
4.									
5.									
6.									

*Potency Factor

Source: 1
Highest Value: (Max.=10)

+2 Bonus Points?
Final Toxicity Value: 1 (Max.=12)

1.2 Mobility (Use numbers to refer to above listed substances)
Cations/Anions: 1=<10 2= ; 3= ; 4= ; 5= ; 6= . Source: 1 **Value: 0** (Max.=3)

OR
Solubility(mg/l): 1= ; 2= ; 3= ; 4= ; 5= ; 6= .

1.3 Substance Quantity: 1088 cu yds Source: 2 **Value: 4** (Max.=10)
Explain basis: 140'x70'x3=29,000 cu ft

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 2 **Value: 10** (Max.=10)
Explain basis: confirmed release to groundwater

2.2 Net Precipitation: 18.7 inches Source: 4 **Value: 2** (Max.=5)

2.3 Subsurface Hydraulic Conductivity: sand/till Source: 2 **Value: 3** (Max.=4)

2.4 Vertical Depth to Ground Water: 0-25 feet Source: 2 **Value: 8** (Max.=8)

3.0 TARGETS

3.1 Ground Water Usage: not usable Source: 3 **Value: 1** (Max.=10)

3.2 Distance to Nearest Drinking Water Well: >2 miles Source: 6 **Value: 0** (Max.=5)

3.3 Population Served within 2 Miles: pop.= = 0 Source: 6 **Value: 0** (Max.=50)

3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: 0.75 no.acres= 0 Source: 6 **Value:0**
0.75 =0.75 ( )= (Max.=100)

4.0 RELEASE

Explain basis for scoring a release to ground water: analytically confirmed release Source: 2 **Value:5** (Max.=5)

SOURCES USED IN SCORING

1. Washington Ranking Method Toxicological Data-Base.
2. Analytical results for Seattle Steam Plants, Dalton, Olmsted & Fuglevand, Inc., 1990.
3. Site hazard assessment, King County Health, December 1998.
4. National Weather Service Data.
5. Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC.
6. Washington State Water Use Data.
7.
8.
9.
10.