

Site Name: Little Hoquiam Boat Shop #2

Site Location: (City, County, or Section/Township/Range)
825 Queens Ave. Hoquiam, WA 98550 Grays Harbor County
Section 2, Township 17N, Range 10W

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

The Little Hoquiam Boat Shop #2 housed a shake mill, a door manufacturing company, and a chair manufacturing company for 40 to 50 years prior to becoming a boat manufacturing shop in 1982. In October of 1987 the ROI Group purchased the facility and later filed for bankruptcy in December 1990. Since 1992 when Howard Moe purchased the site, the facility has been used for manufacturing boats. Howard Moe also owned the shop prior to 1987. The land is owned by Dynatrol, Inc. The site is adjacent to the Hoquiam River, a fishery, however most of the surface drainage is toward the office building where there is a drain that drains away from the river. The northern portion of the site and the area in the ditch and culvert would drain into the river. The closest house is approximately 50 feet from the facility.

During the 1995 SHA Inspection no stained areas of soil were observed. However, sandblast grit was observed on the ground in the garage that is attached to the manufacturing building. There were empty 55-gallon drums stored in this area. Used acetone is distilled on site and reused. The still bottoms are used to fill the boat keels for weight. The paint room had over 300 1-gallon and 5-gallon containers of paint, epoxy, glue, acid wash, and thinner. The paint room is a structure with a wood floor located on old asphalt with gaps around the bottom of the building. The facility has a catch basin where they transfer chemicals. This is where they store 11 55-gallon drums of polyester resin, 29 55-gallon drums of resin, and 5 55-gallon drums of acetone. There is also a shelf unit located in the same area that has approximately 25 5-gallon containers of polyester based adhesive and styrene monomer. This area is inside the manufacturing building near the garage.

Analytical data from the 1991 site inspection indicated that there was soil contamination from both spilled materials and hazardous materials that had been stored on site including acetone. The soils data indicated a large number of constituents were present including copper, phenol, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(g,h,i)perylene, acetone, styrene, and dimethylphthalate. PAHs were present above MTCA cleanup levels.

Special Considerations: (Include limitations in site file data, data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site)

Even though there was no containment to prevent migration to shallow ground water, it was not evaluated since there was no drinking water or irrigation uses within two miles of the site on the site, other than one well that was at least a mile away and across the Hoquiam River.

Since there were no visibly stained soil areas, the site was scored based on a minimal area of contaminated soil. The surface water route was scored based on the adjacent Hoquiam River fishery since there were no drinking water or irrigation uses. The air route was scored on particulates, even though acetone was present in soil samples since there are not likely to be any gaseous releases from the site at this time.

Surface Water/Human Health: 12.4

Surface Water/Environ.: 32.1

Air/Human Health: 17.9

Air/Environmental: 22.8

Ground Water/Human Health: NS

OVERALL RANK: 4

**WORKSHEET 2
ROUTE DOCUMENTATION**

1. SURFACE WATER ROUTE

List those substances to be considered for scoring:

Source: 1

Copper, fluoranthene, pyrene, benzo(a)pyrene, benzo(b)fluoranthene, and dimethylphthalate

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

These substances were all in onsite soils samples above background levels and where applicable above MTCA cleanup standards. These samples were collected during a 1991 site inspection.

List management units to be considered in scoring:

Source: 1,2

Contaminated surface soils.

Explain basis for choice of unit used in scoring.

There had not been removals of the soils since the 1991 inspection, so they are still available to migration.

2. AIR ROUTE

List those substances to be considered for scoring:

Source: 1

Copper, fluoranthene, pyrene, benzo(a)pyrene, benzo(b)fluoranthene, and dimethylphthalate

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

These substances were all in onsite soils samples above background levels and where applicable above MTCA cleanup standards. These samples were collected during a 1991 site inspection.

List management units to be considered in scoring:

Source: 1,2

Contaminated surface soils.

Explain basis for choice of unit used in scoring.

There had not been removals of the soils since the 1991 inspection, so they are still available to migration.

3. GROUND WATER ROUTE

List those substances to be considered for scoring:

Source: NA

There is no ground water usage so this route is not being scored.

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

List management units to be considered in scoring:

Source: NA

Explain basis for choice of unit used in scoring.

**WORKSHEET 4
SURFACE WATER ROUTE**

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Std.		Chronic Toxicity		Acute Toxicity		Carcinogenicity Potency		
	(µg/l)	Value	mg/kg/day	Value	mg/kg-bw	Value	WOE	Factor	Value
Copper	1,300	2	0.037	1	-	ND	-	-	ND
Fluoranthene	-	ND	0.04	1	2,000	3	-	-	ND
Pyrene	0.2	10	0.03	1	2,700	3	-	-	ND
Benzo(a)pyrene	0.2	10	-	ND	50	10	B2	12	7
Benzo(b)fluoranthene	0.2	10	-	ND	-	ND	B2	11.5	7
Dimethylphthalate	4	8	1	1	6,800	1	-	-	ND

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

1.2 Environmental Toxicity Based on Fresh Water

Source: 1,3 Value: 10 ✓

It should be noted that the environmental toxicity is most likely overestimated since there is no fresh water acute criteria available for benzo(a)pyrene and the marine acute value is only 4.

Substance	Acute Criteria (µg/l)	Value	Non-human mammalian acute toxicity (mg/kg)	Value
Copper	18	6	-	ND
Fluoranthene	3,980	2	2,000	3
Pyrene	-	ND	2,700	3
Benzo(a)pyrene	-	ND	50	10
Benzo(b)fluoranthene	-	ND	ND	-
Dimethylphthalate	940	4	6,800	1

1.3 Substance Quantity

Source: 1-4 Value: 1 ✓

Explain basis: There were no stained areas visible during the SHA visit, so the default value of 1 is used for an unknown area.

2.0 MIGRATION POTENTIAL

2.1 Containment

Source: 4 Value: 4 ✓

Explain basis: Spill, discharge, or contaminated soil at the surface with unmaintained or ineffectively maintained run-on/runoff control

2.2 Surface Soil Permeability: The soil is sandy silt with gravel

Source: 2,4-6 Value: 3 ✓

2.3 Total Annual Precipitation: 84.8 in/yr

Source: 7 Value: 5 ✓

- 2.4 Maximum 2-Year 24-Hr Precipitation: 3.4 inches Source: 4 Value: 3
- 2.5 Flood Plain: The site is in a 100-year flood plain Source: 11 Value: 2
- 2.6 Terrain Slope: <2% Source: 2,8 Value: 1

3.0 TARGETS

- 3.1 Distance to Surface Water: Adjacent (<1000 feet) Source: 1,2,8 Value: 10
- 3.2 Population Served within 2 miles: 0 Source: 9 Value: 0
- 3.3 Area Irrigated by Sources within 2 miles: 0 Source: 9 Value: 0
- 3.4 Distance to Fishery Resource: <1000 feet adjacent to site Source: 1,2,8,10 Value: 12
- 3.5 Distance to Sensitive Environment Source: 1,2,8,10 Value: 12

List: Adjacent - Hoguam River fishery

- 4.0 RELEASE Source: 1 Value: 0

Explain basis: 2-butanone was detected in river sediments. However, it was not detected in on site soils and is a common lab contaminant so no release was scored.

**WORKSHEET 5
AIR ROUTE**

1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction - please review before scoring

1.2 Human Toxicity

Substance	Air Std.		Chronic Toxicity		Acute Toxicity		Carcinogenicity Potency		
	($\mu\text{g}/\text{m}^3$)	Value	mg/kg/day	Value	mg/m ³	Value	WOE	Factor	Value
Copper	3.3	9	-	ND	-	ND	-	-	ND
Fluoranthene	-	ND	-	ND	-	ND	-	-	ND
Pyrene	-	ND	-	ND	170	8	-	-	ND
Benzo(a)pyrene	0.0006	10	-	ND	-	ND	B2	-	ND
Benzo(b)fluoranthene	-	ND	-	ND	-	ND	B2	-	ND
Dimethylphthalate	16.7	7	-	ND	-	ND	-	-	ND

Source: 1,3

Highest Value: 10

+ 2 Bonus Points?: +2

Value: 12

1.3 Mobility

1.3.1 Gaseous Mobility N/A

Vapor Pressure:

Value:

Source:

1.3.2 Particulate Mobility

Soil Type: Silty sand with gravel

Erodibility: 56 tons/acre/yr

Climatic Factor: <1

Particulate Mobility Potential

Source: 4-6

Value: 1

1.4 Final Human Health Toxicity/Mobility Matrix:

Value: 6 ✓

1.5 Environmental Toxicity

Source: 1-4 Value: 8 ✓

Substance	Non-human mammalian acute toxicity (mg/kg)	Value	Mobility (Particulate)	Value
Copper	-	ND		
Fluoranthene	-	ND		
Pyrene	170	8	1	4
Benzo(a)pyrene	-	ND		
Benzo(b)fluoranthene	-	ND		
Dimethylphthalate	-	ND		

Environmental Toxicity Mobility Matrix

Source: 3,4 Value: 4 ✓

1.6 Substance Quantity

Source: 1,2 Value: 1 ✓

Explain basis: Unknown quantity of contaminated soil use default value of 1. (See Surface Water)

2.0 MIGRATION POTENTIAL

2.1 Containment

Source: 1.2 Value: 10

Explain basis: The surface soil is contaminated and is not covered.

3.0 TARGETS

3.1 Nearest Population: 50 feet

Source: 1 Value: 10

3.2 Nearest Sensitive Environment: 2,000 feet
List: Sunset Memorial Park

Source: 8 Value: 6

3.3 Population within 1/2 mile: square root 1,391 = 37

Source: 1 Value: 37

4.0 RELEASE

Explain basis: None documented

Source: - Value: 0

REFERENCES

1. Ecology and Environment, Inc. October 1991. Site Inspection Report for Little Hoquiam Boat Shop, Inc.
2. Soderberg, Patrick. Science Applications International Corp. (SAIC) Site inspection on April 14, 1995.
3. Washington Department of Ecology. January 1992. Toxicology Database for Use in Washington Ranking Method Scoring. Publication No. 92-37.
4. Washington Department of Ecology. 1990. Washington Ranking Method Scoring Manual. Revised April 1992. Publication No. 90-14.
5. Grays Harbor County Soil Survey.
6. Water Well Reports filed with Department of Ecology:
 - Gull Hoquiam, Owner. Grays Harbor County, SE 1/4, SW 1/4, Sec. 2, T17N, R10W. Completed 6/13/94. Depth of completed monitoring well-19 feet.
 - Former Chevron. Grays Harbor County, NE 1/4, SE 1/4, Sec. 2, T17N, R10W. Completed 4/19/92. Depth of completed monitoring well-18.5 feet.
 - Former Chevron. Grays Harbor County, NE 1/4, SE 1/4, Sec. 2, T17N, R10W. Completed 4/29/92. Depth of completed monitoring well-15 feet.
7. Washington State Cooperative Extension Service. 1968. Washington Climate for Grays Harbor County.
8. U.S. Geological Survey. Photorevised 1983. Hoquiam Quadrangle Washington - Grays Harbor Co. 7.5 Minute Series (Topographic).
9. Water Rights Information System (WRIS) Database. 1995. Washington Department of Ecology.
10. Washington Department of Fisheries. A Catalog of Streams and Salmon Utilization, Vol 1&2.
11. Hoquiam Planning Department (360) 532-5700. Effective June 15, 1979. Community Panel Number 5300610005B.

