SNOHOMISH
HEALTH DISTRICT
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Environmental Health Division

February 7, 2013

Steven and Janet Klett
14430 44th Street NE
Lake Stevens, WA 98258

Subject: **Site Hazard Assessment** – Sea-Alaska Industrial Electrical
Facility Site ID: 9525627
Site Address: 415 Maple Avenue
Snohomish, WA 98290
Parcel Number: 280618 002 06800
Cleanup Site: #417

Dear Property Owners:

Snohomish Health District is writing to inform you that the above referenced property was subject to a Site Hazard Assessment (SHA) as required under the Model Toxics Control Act, in December 2012. The site was determined to be contaminated with petroleum hydrocarbons (TPH) and 2 heavy metals (cadmium and lead). The site's hazard ranking, an estimation of the potential threat to human health and/or the environment relative to all other Washington state sites assessed at this time, has been determined by the Department of Ecology (Ecology) to be a **3,** where a 1 represents the highest relative risk and 5 the lowest.

For your information, Ecology will be publishing the results of this, and other recently assessed sites, in the *February 2013, Special Issue of the Site Register.* The site hazard ranking will be used in conjunction with other considerations in determining Ecology's priority for future action at this site.

For inquiries regarding what may occur with your site now that it is on Ecology's Hazardous Sites List please contact Donna Musa at (425) 649-7136 or donna.musa@ecy.wa.gov.

Sincerely,

Anne Alfred, MPH, RS
Environmental Health Specialist
Snohomish Health District

AA:jg

c: Ted Benson, Department of Ecology Headquarters, TCP
Donna Musa, Site Hazard Assessment Coordinator, Department of Ecology

SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Site Name: Sea Alaska Industrial Electric
Address: 415 Maple Ave, Snohomish, WA 98290
Section/Township/Range: S18 T28 R06 NW
Latitude: 47.91635 Longitude: -122.08805
Tax Parcel: 28061800206800
Ecology Facility Site ID: 9525627
Ecology Cleanup Site ID: 417
Site scored/ranked for the February 2013 update

SITE DESCRIPTION:
Sea-Alaska Industrial Electric has been located at 415 Maple Ave, Snohomish WA 98290 since 1975. The area is mixed industrial and residential and is adjacent to the Burlington Northern train tracks near downtown Snohomish. The site is in a combined sewer area within the city of Snohomish; that is, site runoff to storm drainage goes to the sewage treatment facility rather than to the nearest body of water.

The site is fairly flat, with soils being a gravelly, sandy, loam. The Pilchuck River is 1200 feet east and the Snohomish River is 2400 feet southwest.

The site is approximately 76 feet above sea level. Groundwater flows are predominately north to south. According to well logs the water table ranges from 9 to 20 feet deep in a two mile radius and underlying soils are sand/silt/clay/gravel mix. A decommissioned well next door at 417 Maple Ave had water at 12 feet. City of Snohomish water is surface water plus well water, but none of the city wells are in the area.

The contamination at this site was discovered by an Ecology employee who was investigating an adjacent property and noticed the wet, oily area by the back east fence of the Sea-Alaska property. The business had dumped waste liquids at this site as well as used the cement pad for pressure washing electrical parts and components. The inspection report states that there was soil contamination observed in a limited area. Samples were collected from the impacted areas and analyzed for Pb, Cr, Cd, VOCs, PCBs, and NWTPH Dx. Exceedances were observed in Cd, Pb, and TPH Heavy oils. There were elevated levels in the other sampled contaminants but they did not exceed MTCA.

No known remediation activities have taken place on this site. This SHA will assess only the groundwater route because the site is in the combined sewer area of the city of Snohomish.

ROUTE SCORES:
Surface Water/Human Health: **Not scored** Surface Water/Environmental.: **Not scored**
Air/Human Health: **Not scored** Air/Environmental: **Not scored**
Groundwater/Human Health: 34.5

OVERALL RANK: 3

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE**
   a. List those substances to be considered for scoring: **NOT SCORED** Source:

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

   c. List those management units to be considered for scoring: Source:

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

2. **AIR ROUTE**
   a. List those substances to be considered for scoring: **NOT SCORED** Source:

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

   c. List those management units to be considered for scoring: Source:

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

3. **GROUNDWATER ROUTE**
   a. List those substances to be considered for scoring:
   Cd, Pb, TPH-Heavy oil Source: 1
   b. Explain basis for choice of substance(s) to be used in scoring:
   Sampling data that show presence of Cd, Pb, and TPH-Heavy Oil which exceed MTCA cleanup levels
   c. List those management units to be considered for scoring: Source:
   Surface and subsurface soils
   d. Explain basis for choice of unit to be used in scoring:
   Spills and discharges to soil

WORKSHEET 4
Surface Water Route
NOT SCORED

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1										
2										
3										
4										
5										
6										

** Potency Factor*

Source:
Highest Value:
(Max = 10)
Plus 2 Bonus Points?
Final Toxicity Value:
(Max = 12)

1.2 Environmental Toxicity ( ) Freshwater ( ) Marine

	Substance	Acute Water Quality Criteria		Non-Human Mammalian Acute Toxicity	
		(µg/L)	Value	(mg/kg)	Value
1					
2					
3					
4					
5					
6					

Source:
Highest Value:
(Max = 10)

1.3 Substance Quantity

Explain Basis:	Source: **Value:** (Max = 10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment** **Explain basis:**		_ (Max = 10)
2.2	**Surface Soil Permeability:**		_ (Max = 7)
2.3	**Total Annual Precipitation:**		_ (Max = 5)
2.4	**Max 2yr/24hr Precipitation:**		_ (Max = 5)
2.5	**Flood Plain:**		_ (Max = 2)
2.6	**Terrain Slope:**		_ (Max = 5)

3.0 TARGETS

		Source	Value
3.1	**Distance to Surface Water:**		_ (Max = 10)
3.2	**Population Served within 2 miles (see WARM Scoring Manual Regarding Direction):**		_ (Max = 75)
3.3	**Area Irrigated by surface water within 2 miles : (0.75)*√ # acres =**		_ (Max = 30)
3.4	**Distance to Nearest Fishery Resource**		_ (Max = 12)
3.5	**Distance to, and Name(s) of, Nearest Sensitive Environment(s):**		_ (Max = 12)

4.0 RELEASE

Explain Basis:	Source: **Value:** (Max = 5)

WORKSHEET 5
Air Route
NOT SCORED

1.0 SUBSTANCE CHARACTERISTICS

1.1. Introduction (WARM Scoring Manual) – Please review before scoring

1.2 Human Toxicity

	Substance	Air Standard ($\mu g/m^3$)	Value	Acute Toxicity (mg/m^3)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1										
2										
3										
4										
5										

** Potency Factor*

Source:

Highest Value: (Max = 10)

Plus 2 Bonus Points?

Final Toxicity Value: (Max = 12)

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

	1.3.1 Gaseous Mobility	1.3.2 Particulate Mobility		
	Vapor Pressure(s) (mmHg)	Soil Type	Erodibility	Climatic Factor
1				
2				
3				

Source: Source:

Value: (Max = 4) **Value:** (Max = 4)

1.4 Highest Human Health Toxicity/ Mobility Matrix Value (from Table A-7)

(Use highest of:)

Final Matrix Value: (Max = 24)

1.5 Environmental Toxicity/Mobility –						
	Substance	**Non-human Mammalian Inhalation Toxicity (mg/m^3)**	**Acute Value**	**Mobility (mmHg)**	**Value**	**Matrix Value**
2						
6						

Highest Environmental Toxicity/Mobility Matrix Value (Table A-7) = **Final Matrix Value:**
(Max = 24)

1.6 Substance Quantity	
Explain Basis:	Source: **Value:** (Max = 10)

2.0 MIGRATION POTENTIAL

		Source	**Value**
2.1	**Containment:**		(Max = 10)

3.0 TARGETS

		Source	**Value**
3.1	**Nearest Population:**		(Max = 10)
3.2	**Distance to [and name(s) of] nearest sensitive environment(s):**		(Max = 7)
3.3	**Population within 0.5 miles:**		(Max = 75)

4.0 RELEASE

Explain Basis for scoring a release to air:	Source: **Value:** (Max = 5)

WORKSHEET 6
Groundwater Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	Cd	5	8	225	5	0.0005	5	-	-	x
2	Pb	5	8	-	-	-	-	B1	-	x
3	TPH-Heavy oil	-	-	-	-	2	1	-	-	x
4										
5										
6										

* *Potency Factor*

Source: 1,2

Highest Value: 8
(Max = 10)

Plus 2 Bonus Points? 2

Final Toxicity Value: 10
(Max = 12)

1.2 Mobility (use numbers to refer to above listed substances)

Cations/Anions [Coefficient of Aqueous Migration (K)] OR	Solubility (mg/L)
1= 3 (from table GW-5)	1=
2= 2 (from table GW-5)	2=
3=	3 = <10=0
4=	4=
5=	5=
6=	6=

Source: 3

Value: 3
(Max = 3)

1.3 Substance Quantity:

Explain basis: quantity unknown, default to 1	Source:1,3 **Value: 1** (Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** no containment, spill to soil	1,3	**10** (Max = 10)
2.2	**Net precipitation:** April – Nov 17.5	12	**2** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** sandy,silty, gravelly loam	9,11	**3** (Max = 4)
2.4	**Vertical depth to groundwater:** well logs show water level at 9-20 feet	8,11	**8** (Max = 8)

2.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** private (public available)	8,10,11	**4** (Max = 10)
3.2	**Distance to nearest drinking water well:** 1750 ft	11	**3** (Max = 5)
3.3	**Population served within 2 miles: ˜100**	11,12	**10** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** well logs show only 3 irrigation wells for parks **(0.75)*√**	5, 11	**6** (Max = 50)

3.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: not documented	1,3	**1** (Max = 5)

SOURCES USED IN SCORING

1. Washington State Department of Ecology File containing Initial Investigation Report for Sea-Alaska 2006.
2. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992
3. Washington State Department of Ecology, Washington Ranking Method (WARM) Scoring Manual, April 1992
4. Washington State Department of Health, Office of Drinking Water Sentry Database of Public Wells
5. Google Earth © 'fly to' search and historical imagery search
6. Snohomish County Assessors Information http://gis.snoco.org/maps/property/index.htm
7. Snoscape; http://www1.co.snohomish.wa.us/Departments/PDS/Services/Permit_Info.htm
8. Washington State Department of Ecology, Water Rights Application System
9. Soil Conservation Service, Soil Survey of Snohomish County, July 1983
10. http://www.co.snohomish.wa.us/documents/Departments/Emergency_Management/nhmp/v2part2ch11.pdf
11. Washington State Department of Ecology, Online Water Well logs http://apps.ecy.wa.gov/welllog/MapSearch/viewer.htm?left=1203446&right=1215242&top=%20%20926107&bottom=917701&sessionid=889275590
12. http://www.cityofsnohomish.com/pages/CityDemographics.asp