

The following is an Adobe Acrobat reproduction of the official

HRS DOCUMENTATION RECORD

for

Poly-Cycle Industries, Inc.

Tecula, Texas

No graphics illustrations or copies of documents cited as references in the determination of the HRS score are included with this electronic version, but graphics are available with the print versions as part of the Poly-Cycle Industries, Inc. repository records

at

Jacksonville Public Library

502 South Jackson

Jacksonville, Texas

and/or

TNRCC Records Management Center

Austin, Texas

August 15, 2002

Scroll Down to View



Protecting Texas
by Reducing and
Preventing Pollution

HAZARD RANKING SYSTEM DOCUMENTATION RECORD

for

**Poly-Cycle Industries, Inc. - Tecula
A.K.A. Polycycle Industries, Inc. - Tecula
A.K.A. New Rocky Point Foundation
Tecula, Cherokee County, Texas
TXT# 490012689; TNRCC SWR# 67065**

Prepared by:

**Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
Austin, Texas**

August 2002



HRS

**DOCUMENTATION
RECORD**

**Poly-Cycle Industries, Inc. - Tecula
Tecula, Cherokee County, Texas**

August 2002

Hazard Ranking System Documentation Record

Poly-Cycle Industries, Inc. - Tecula
Tecula, Cherokee County, Texas
TXT# 490012689; TNRCC SWR# 67065

Prepared by

Texas Natural Resource Conservation Commission
Site Assessment and Management Section
Superfund Site Discovery and Assessment Program
Austin, Texas

August 2002

HRS DOCUMENTATION RECORD

POLY-CYCLE INDUSTRIES, INC. - TECULA

TECULA, CHEROKEE COUNTY, TEXAS

TXT# 490012689; TNRCC SWR# 67065

SIGNATURE PAGE

Gary L. Hazelwood

Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
Project Manager

Date

John Syer

Texas Natural Resource Conservation Commission
Acting QA/QC Officer

Date

Wesley G. Newberry

Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
Team Leader

Date

David L. Davis

Texas Natural Resource Conservation Commission
Site Assessment and Management Section
Section Manager

Date

CONTENTS

	Page
HRS Documentation Record Cover Sheet	1
Pathways of Concern	1
Pathways, Components, or Threats Not Evaluated	2
Note to Reader	3
HRS Documentation Record	4
Site Location	4
Site Scoring Summary	4
Site Summary	5
General Description of the site	5
Site History	6
Reference Listings	12
Worksheet for HRS Site Score	13
Surface Water Overland/Flood Migration Component Scoresheet	14

FIGURES

Figure 1	Site Location Map	9
Figure 2	Sample Location Map	10
Figure 3	Areas of Observed Releases	11

HRS DOCUMENTATION RECORD - REVIEW COVER SHEET

Name of Site: Poly-Cycle Industries, Inc. - Tecula

Current Contact Person: Wesley Ray and Sheila Putman c/o Richard H. Lottman (Attorney) (903) 534-0006

Documentation Record: Gary L. Hazelwood, TNRCC (903) 535-5108

Pathway of Concern: Surface Water Pathway

Surface Water Pathway

Observed releases of hazardous substances to the surface water pathway are of concern for this site. A fishing pond, Charles Russell's Pond, is located approximately 0.5 miles from the site (Ref. 3, p. 8). Fish tissue samples from largemouth bass, bluegill, and green sunfish were collected from Charles Russell's Pond and Level I observed releases of lead and cadmium was documented (Ref. 3, p. 8). Battery caps and plastic pieces were seen on the banks of Charles Russell's Pond and along the drainage pathway between the site and the pond. Sample analysis results from both the 1991 SSI and a February 24, 2000 TNRCC sampling event (Ref. 4), document Level II observed releases to on-site sediment along the overland drainage pathway (Ref. 3, Table 1, Samples SS-03, SS-05, SS-06, and SS-07; 5, Photographs 2 and 3; and 6, SO-06). The PPE to Mud Creek is located approximately 1.75 miles from the site (Ref. 3, p. 7).

Pathway, Components, or Threats Not Evaluated:

Groundwater Pathway

The groundwater pathway failed to contribute to the site score and therefore was not evaluated. Tecula residents receive their drinking water from the North Cherokee Water Coop. The water is obtained from the City of Jacksonville's wells and Jacksonville Lake. Three domestic drinking water wells, drawing from the Carrizo Sand, were identified within one mile of the site and were sampled during the 1991 SSI and did not contribute to the site score. While the groundwater did not contribute to the site score, it is likely to be impacted due to the shallow aquifer (10.7 feet from surface) and the presence of contaminated stockpiled soil, with lead levels between 1,000 and 365,000 ppm, with no liner beneath it.

Soil Exposure Pathway

The Soil Exposure Pathway is not being evaluated since the pathway lacks targets to significantly increase the site score. There are no resident targets or on-site workers. The nearest residence is approximately 1,000 feet up-gradient of the site.

On February 7, 1986, the Texas Air Control Board (TACB) documented lead concentrations up to 350,000 ppm in on-site soil. On March 11, 1991, the EPA initiated a removal action at the site. The EPA excavated nine acres containing lead levels exceeding 1,000 ppm. Current conditions, outside the fenced source storage area, based on the February 24, 2000 soil sample analysis results are lead contaminated soil ranging from 98 to 290 mg/kg (Ref. 6).

Air Migration Pathway

The Air Migration Pathway is not being evaluated since the pathway score does not increase the site score.

While the facility was active, air samples exceeded acceptable lead levels. Twenty-four cases of lead poisoning were detected in Poly-Cycle employees between October 1983 and August 1989.

(Although these pathways have not been evaluated, the TNRCC is concerned for all pathways surrounding the site. However, evaluation of these pathways would not have significantly increased the overall site score.)

NOTE TO READER

The State predecessor agencies: Texas Water Quality Board (TWQB), Texas Department of Water Resources (TDWR), Texas Water Commission (TWC), and Texas Air Control Board (TACB), referred to throughout this report are now known as the Texas Natural Resource Conservation Commission (TNRCC). The new agency, TNRCC, became effective September 1, 1993, as mandated under State Senate Bill 2 of the 73rd Regular Legislative Session. On September 1, 2002 the TNRCC's name will change to the Texas Commission on Environmental Quality (TCEQ) as mandated under House Bill 2912 of the 77th Regular Legislative Session.

HRS DOCUMENTATION RECORD

Name of Site: Poly-Cycle Industries, Inc. - Tecula
Date Prepared: 07/2002
CERCLIS Site ID Number: TXT490012689
TNRCC ID#: 67065

SITE LOCATION:

Street Address of Site: 1.25 miles northeast of Tecula, on the southeast corner of the intersection of FM 2064 and CR 4216 (see Figure 1, Site Location Map).

City, County, State: Tecula, Cherokee County, Texas

Topographic Map: US Geological Survey 7.5 Minute Topographic Map, Tecula, Tex. 1973 (Ref. 11)

Latitude: 32° 01' 23" North **Longitude:** 95° 11' 23" West

TNRCC Region: 5

SITE SCORING SUMMARY:

Pathway Scores:

Groundwater Migration Pathway - NE
Surface Water Migration Pathway - 60.36
Soil Exposure Pathway - NE
Air Migration Pathway - NE
NE - Not Evaluated

HRS SITE SCORE: 30.18

SITE SUMMARY

General Description of the Site:

The site is located at Latitude $32^{\circ} 01' 23''$ North and Longitude $95^{\circ} 11' 23''$ West, 1.25 miles northeast of Tecula, Cherokee County, Texas. The whole site is approximately 35 acres (Ref. 3, p. 1). Approximately nine acres were excavated during the removal action that began during March 1991 (Ref. 7, p. 7). The site is located on the southeast corner of the intersection of FM2064 and CR 4216, in Cherokee County. The Union Pacific Railroad line makes up the southern boundary of the site, see Figure 1, Site Location Map.

Poly-Cycle operated a lead battery recycling operation. The date operations began are unknown, but was sometime prior to a May 1982, when the Texas Department of Health conducted an inspection. Operations ended in March 1990 (Ref. 3, p. 2). The facility first operated under the name Rocky Point International, then changed its name to Poly-Cycle Industries, with no change in operators. The facility recycled lead from lead acid batteries and cases. The tops were sawed off the batteries to remove the lead plates. The sulfuric acid was drained and flowed on the concrete floor of the process building to a system of three concrete settling basins. Lime was added to the basins to neutralize the acid and help separate out the lead. Plastic battery case chips were skimmed off the settling basins, washed, and sold to Hefner Plastics. Rubber battery chips were shredded and sold to Western Company of North America, Inc. The lead sludge was sold to a smelter (Lion Metals, Inc.) in New Jersey (Ref. 3, p. 2).

The Poly-Cycle Tecula facility had a history of violating State and Federal Regulations. Previous investigations were conducted by the Texas Air Control Board (TACB), Texas Water Commission (TWC), Texas Department of Health (TDH), Occupational Health and Safety Administration (OSHA, and the Environmental Protection Agency (EPA). Improper waste handling and storage resulted in contamination of approximately 9 acres (Ref. 7, p. 3). Lead levels in soil were found to range up to 365,000 ppm (Ref. 7, p. 16). Air lead levels ranged up to 166.0 ppm (Ref. 7, p. 16). 3,740 ppm lead concentration was found in the off-site fishery - Russell's Pond (Ref. 7, p. 18).

From April 5, 1991 to January 2, 1992, the EPA's contractors removed site structures and contaminated soil and sediment from the site and from off-site Russell's Pond. The EPA conducted a removal of surface soils to 1,000 ppm and drainage pathways to 500 ppm. They conducted confirmation sampling and backfilled the excavated areas. Two temporary buildings were constructed for storage of highly contaminated waste. Buildings A and B were filled with a total of 2,200 1.7 cubic yard bags of highly contaminated waste, 1,100 bags per building. Remaining lead contaminated soil was consolidated in a stockpile, with no documentation of a bottom liner. The soil was compacted and covered with a geomembrane underliner, a 40 mil high density polyethylene liner, two foot cap of clean material, and preseeded straw and coconut grass mat. A silt fence was installed in two concentric rings to reduce erosion. A six foot security fence was built around the stockpile, foundations of the dismantled process buildings, and the two locked temporary storage buildings.

Site History:

Rocky Point International began recycling lead from lead acid batteries sometime prior to 1982 and shortly changed their name to Poly-Cycle Industries (Ref. 3, p. 2). The recycling process is described on the previous page. The Poly-Cycle Industries Tecula facility was investigated many times by the Texas Air Control Board (TACB), Texas Water Commission (TWC), Texas Department of Health (TDH), Occupational Health and Safety Administration (OSHA), and the Environmental Protection Agency (EPA). The following is a condensed chronology of events for the facility. Each historical statement is referenced "Ref. 7, pp. 15 - 30, unless otherwise noted":

On September 14, 1982, the TACB documented on-site soil containing 35.23% lead by weight.

On December 17, 1982, the TDH and TACB conducted an investigation resulting in a notice of violation (NOV) letter being issued on December 21, 1982, for constructing a grinding facility without a permit and not paving its parking lot with asphalt as represented in its application.

On October 1983, OSHA began inspecting the facility after a physician notified them of an employee seriously ill with lead intoxication. OSHA has documented approximately 24 cases of lead poisoning, between October 17, 1983 and August 25, 1989.

On September 21 and October 3, 1984, the TACB documented lead contaminated soil, up to 281,000 ppm. A NOV was issued November 19, 1984.

On January 4, 1985, Wesley Ray, facility owner, met with the TACB and submitted a compliance plan.

On February 7 and 14, 1986, the TACB documented lead concentrations up to 350,000 ppm in soil. NOV's were issued on February 19 and March 19, 1986.

On April 3, 1986 and August 13, 1986, the TWC conducted sampling inspections. Soil samples were hazardous, exhibiting the characteristics for toxicity for cadmium and lead.

On October 1986, the TACB requested the Attorney General to file suit to close the facility due to illegal emissions and lack of required permits.

On November 11, 1986, the TWC received a complaint from a former employee that he observed Poly-Cycle burying lead contaminated soil beneath a concrete slab.

On November 24, 1986, the TWC conducted a Compliance Evaluation Inspection (CEI). 21 violations of solid waste regulations were noted. On February 17, 1987, the TWC issued a NOV as result of the November 24, 1986 CEI inspection.

On December 12, 1986, the TWC submitted the case to enforcement.

On January 15, 1987, the TWC confirmed a complaint from an adjoining property owner that plastic and soil was being dumped at night near his property.

On March 28, 1987, the TWC found lead contaminated storm water discharging from the southeast corner of the site.

On August 1987, the TWC issued a RCRA Administrative Order to Poly-Cycle. The case was referred to the Attorney General when Poly-Cycle did not comply.

On September 4, 1987, the TWC sent Mr. Wesley Ray a "Notice to Executive Director's Preliminary Report and Petition for a Texas Water Commission Order Assessing Administrative Penalties and Requiring Certain Actions at Poly-Cycle Industries - Tecula Facility."

On June 20, 1988, OSHA measured lead concentrations in the air from 102 to 360 Fg/m³. The permissible exposure limit for lead is 50 Fg/m³.

On April 18, 1989, the EPA issued an Administrative Order Docket No. VI-89-1039 for violations of discharging into the waters of the United States without permits. The order required Poly-Cycle to cease and desist from all discharges into waters of the United States.

On May 4, 1989, the TWC referred Poly-Cycle to the Office of the Attorney General for litigation. This referral was the result of several TWC inspections, conducted January 15 and 21, 1987, March 24, 1987, December 29, 1987, February 13, 1988, March 4, 1988, and December 2, 1988. The Attorney General's Office filed a lawsuit to prevent Poly-Cycle from operating until all discharges of industrial wastes were stopped. On July 27, 1989, a modified settlement injunction, based on negotiations between Poly-Cycle and the TWC, was issued by a Cherokee County District Judge.

TWC inspection reports between 7/31/89 and 10/11/89 continued to note Poly-Cycle's failure to comply with the Agreed Temporary Injunction.

On October 30, 1989, the EPA issued Administrative Order Docket No. VI-89-288 for violations of the Clean Water Act. On November 15, 1989, Mr. Wesley Ray was indicted for illegal dumping of hazardous substances by the Cherokee County District Court.

On January 31, 1990, the TWC and IRS inspectors noted much of the process equipment had been removed from the site. The sulfuric acid tanks, piles of processed battery components, waste piles of lead sludge, and surface impoundments remained. The facility did not have an approved closure plan.

On March 7, 1990, a TWC was denied access to the site. Further attempts to gain access by the TWC were also unsuccessful.

On August 31, 1990, the site was referred to the EPA's Emergency Response Branch, by OSHA.

On February 20, 1991, the EPA was unsuccessful in their attempts to contact the owner/operators to negotiate an Administrative Order. On March 8, 1991, the EPA signed an Action Memorandum approving a Removal Action at the site. On March 11, 1991, the U.S. Department of Justice filed an application for an Administrative Search Warrant, which was approved and granted authority to any agent of the EPA and their designated contractors, agents, and employees for search and entry to abate imminent and substantial endangerment at the site. On March 12, 1991, the warrant was served. No owner or operator was present at the time.

On March 14, 1991, the theft of Poly-Cycle business and financial records was reported. On March 14, 1991, the EPA contracted twenty-four hour site security and began assessing lead levels in soil, which were found to range from 2,830 to 365,000 ppm. Air lead levels ranged up to 166.0 ppm. 3,740 ppm lead concentration was found in the off-site fishery - Russell's Pond.

On April 2, 1991, Carl Hickam of ATSDR recommended cleaning up surface soils to 1,000 ppm and drainage pathways to 500 ppm. From April 5, 1991 to January 2, 1992, the EPA's contractors removed site structures and contaminated soil and sediment from the site and from off-site Russell's Pond. They conducted confirmation sampling and backfilled the excavated areas. Two temporary buildings were constructed for storage of highly contaminated waste. Buildings A and B were filled with a total of 2,200 1.7 cubic yard bags of highly contaminated waste, 1,100 bags per building. Remaining lead contaminated soil was consolidated in a stockpile with no documentation of a bottom liner. The soil was compacted and covered with a geomembrane underliner, a 40 mil high density polyethylene liner, two foot cap of clean material, and preseeded straw and coconut grass mat. A silt fence was installed in two concentric rings to reduce erosion. A six foot security fence was built around the stockpile, foundations of the dismantled process buildings, and the two locked temporary storage buildings.

On October, 1994, the EPA's Technical Assistance Team conducted a follow-up inspection and found that additional response actions were necessary due to erosion of the stockpile's cap and the fence was in need of repair. The additional response actions were approved on December 19, 1994 and the EPA's project ceiling was raised an additional \$87,045.00 to \$4,062,757.00 (Ref. 8).

On February 24, 2000, the TNRCC conducted a soil and sediment sampling event. Sample analysis results revealed lead contamination ranging from 98 to 290 mg/Kg (Ref. 4, 5, and 6). While these levels are observed releases, they are below the EPA's drainage pathway cleanup level of 500 mg/Kg; see the April 2, 1991 recommended clean up levels.

August, 2000, notification letters were issued to potential responsible parties Exide Corporation, GNB Technology, and RSR Corporation, which expressed interest in working with the TNRCC's Voluntary Cleanup Program to remediate the Jacksonville and Tecula Poly-Cycle sites. On September 30, 2000, Exide Corporation acquired GNB Technologies and was renamed Exide Technologies. On April 15, 2002, Exide Technologies filed for a Chapter 11 bankruptcy (Ref. 9).

On August 21, 2000, Wesley Ray responded to a TNRCC letter stating “The EPA had the property seized and he served five years of the proposed 40 year sentence.” (Ref. 10).

Figure 1 - Site Location Map

Figure 2 - Sample Location Map

Figure 3 - Areas of Contamination

REFERENCES

Reference

- | <u>Number</u> | <u>Description of the Reference</u> |
|---------------|---|
| 1. | U.S. Environmental Protection Agency, 40CFR Part 300, <i>Hazard Ranking System</i> , Appendix A, 55 FR 51583, December 1990. |
| 2. | U. S. Environmental Protection Agency, <i>Superfund Chemical Data Matrix (SCDM)</i> . June 1996. |
| 3. | Morrison Knudsen Corporation, Environmental Services Group, to The U.S. Environmental Protection Agency, Site Screening Inspection Report for Polycycle Industries Tecula. December 1993. 23 pages. |
| 4. | Hazelwood, Gary, Superfund Site Discovery and Assessment Program, Texas Natural Resource Conservation Commission, Superfund Site Discovery and Eligibility Determination Checklist, February 24, 2000. 6 pages. |
| 5. | Hazelwood, Gary, Superfund Site Discovery and Assessment Program, Texas Natural Resource Conservation Commission, Photograph Pages, February 24, 2000. 4 pages. |
| 6. | Garcia, Roland, Lower Colorado River Authority Environmental Laboratory Services, to Texas Natural Resource Conservation Commission, Sample Analysis Results for Four Soil Samples. March 10, 2000. 41 pages. |
| 7. | Gray, David W., the U.S. Environmental Protection Agency, Removal Section, to Sam Becker, the U.S. Environmental Protection Agency, Superfund Enforcement Branch, After Action Report. Undated Document Estimated to Be January 1992. 30 pages. |
| 8. | Foster, Althea, the U.S. Environmental Protection Agency, On-Scene Coordinator, to Russell F. Rhodes, the U.S. Environmental Protection Agency, Environmental Services Division Director, Memorandum. December 19, 1994. 10 pages. |
| 9. | Vickery, Mark R., Deputy Director, Office of Permitting, Remediation & Registration, Texas Natural Resource Conservation Commission, to Ronald R. Del Vento, Chief Bankruptcy & Collection Division, Office of the Attorney General. Letter. July 1, 2002. 4 pages. |
| 10. | Ray, Wesley, to Gary Hazelwood, Superfund Site Discovery and Assessment Program, Texas Natural Resource Conservation Commission, Letter. August 21, 2000. 2 pages. |
| 11. | U.S. Geological Survey, Tecula, Texas Quadrangle, 7.5 Minute Series. <u>Topographic Map</u> . 1973. |

1 page.

WORKSHEET FOR COMPUTING HRS SITE SCORE

	<u>S</u>	<u>S²</u>
1. Ground Water Migration Pathway Score (S_{gw}) (from Table 3-1, line 13)	NE	
2a. Surface Water Overland/Flood Migration Component (from Table 4-1, line 30)	60.36	3,643.33
2b. Ground Water to Surface Water Migration Component (from Table 4-25, line 28)	NE	
2c. Surface Water Migration Pathway Score (S_{sw}) Enter the larger of lines 2a and 2b as the pathway score.	60.36	3,643.33
3. Soil Exposure Pathway Score (S_s) (from Table 5-1, line 22)	NE	
4. Air Migration Pathway Score (S_a) (from Table 6-1, line 12)	NE	
5. Total of $S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		3,643.33
6. HRS Site Score Divide the value on line 5 by 4 and take the square root	<u>30.18</u>	

**TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET**

<u>Factor Categories and Factors</u>		<u>Maximum Value</u>	<u>Value Assigned</u>
<u>Drinking Water Threat</u>			
<u>Likelihood of Release</u>			
1.	Observed Release (Ref. 1, Sec. 4.1.2.1.1) (Sample Analysis Results; Ref. 6)	550	<u>550</u>
2.	Potential to Release by Overland Flow:		
2a.	Containment	10	___
2b.	Runoff	25	___
2c.	Distance to Surface Water	25	___
2d.	Potential to Release by Overland Flow (Lines 2a x (2b + 2c))	500	___
3.	Potential to Release by Flood:		
3a.	Containment (Flood)	10	___
3b.	Flood Frequency	50	___
3c.	Potential to Release by Flood (Lines 3a x 3b)	500	___
4.	Potential to Release (Lines 2d + 3c, subject to a maximum of 500)	500	___
5.	Likelihood to Release (Higher of Lines 1 and 4) (Ref. 1, Sec. 4.1.2.1.3)	550	<u>550</u>
<u>Waste Characteristics</u>			
6.	Toxicity/Persistence (Ref. 1, Sec. 4.1.2.2.1) (Toxicity Arsenic & Lead = 10,000/ persistence = 1; Ref. 2)	*	<u>10,000</u>
7.	Hazardous Waste Quantity (Ref. 1, Sec. 2.4.2.2) (Contaminated Soil: hazardous constituent quantity not adequately determined and pathway is subject to Level II Concentration - Default value selected)	*	<u>100</u>
8.	Waste Characteristics (Ref.1, Table 2-7 for 1X10 ⁶)	100	<u>32</u>
<u>Targets</u>			
9.	Nearest Intake	50	___
10.	Population:		
10a.	Level I Concentrations	**	___
10b.	Level II Concentrations	**	___
10c.	Potential Contamination	**	___
10d.	Population (Lines 10a + 10b + 10c)	**	___
11.	Resources (Ref. 1, Sec. 4.1.2.3.3)	5	<u>0</u>
12.	Targets (Lines 9 + 10d + 11) (Ref. 1, Sec. 4.1.2.3.4)	**	<u>0</u>

* Maximum value applies to waste characteristics category

** Maximum value not applicable

**TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET**

<u>Factor Categories and Factors</u>		<u>Maximum Value</u>	<u>Value Assigned</u>
<u>Drinking Water Threat Continued</u>			
<u>Drinking Water Threat Score</u>			
13.	Drinking Water Threat Score ((Lines 5 x 8 x 12)/82,500, subject to a maximum of 100) (Ref. 1, Sec. 4.1.2.4)	100	<u>0</u>
<u>Human Food Chain Threat</u>			
<u>Likelihood of Release</u>			
14.	Likelihood of Release (Same value as Line 5) (Ref. 1, Sec. 4.1.3.1)	550	<u>550</u>
<u>Waste Characteristics</u>			
15.	Toxicity/Persistence/Bioaccumulation (Ref. 1, Sec. 4.1.3.2.1) (Cadmium - 10,000/1.0/5,000, Ref. 2)	*	<u>50,000,000</u>
16.	Hazardous Waste Quantity (Same as line 7)	*	<u>100</u>
17.	Waste Characteristics (Ref. 1, Table 2-7; using 5 X 10 ⁹)	1,000	<u>180</u>
<u>Targets</u>			
18.	Food Chain Individual (Ref. 1, Sec. 4.1.3.3.1)	50	<u>50</u>
19.	Population:		
	19a. Level I Concentrations (Ref. 1, 4.1.3.3.2.1 using >11b=0.3/dilution=1)	**	<u>0.3</u>
	19b. Level II Concentration	**	—
	19c. Potential Human Food Chain Contamination	**	—
	19d. Population (Lines 19a + 19b + 19c) (Ref. 1, Sec. 4.1.3.3.2.4)	**	<u>0.3</u>
20.	Targets (Value from Lines 18 + 19d) (Ref. 1, Sec. 4.1.3.3.3)	**	<u>50.3</u>
<u>Human Food Chain Threat Score</u>			
21.	Human Food Chain Threat Score ((Lines 14 x 17 x 20)/82,500 subject to a maximum of 100) (Ref. 1, Sec. 4.1.3.4) [(550 X 180 X 50.3)/82,500]	100	<u>60.36</u>

* Maximum value applies to waste characteristics category

** Maximum value not applicable

**TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET**

<u>Factor Categories and Factors</u>		<u>Maximum Value</u>	<u>Value Assigned</u>
<u>Environmental Threat</u>			
<u>Likelihood of Release</u>			
22.	Likelihood of Release (Same Value as Line 5) (Ref. 1, Sec. 4.1.4.1) (Lines 5 x 8 x 12)/82,500, subject to a maximum of 100)	550	<u>550</u>
<u>Waste Characteristics</u>			
23.	Ecosystem Toxicity/Persistence/ Bioaccumulation (Ref. 1, Sec. 4.1.4.2.1) (Cadmium & Lead 1,000/1/5,000, Ref. 2)	*	<u>5,000,000</u>
24.	Hazardous Waste Quantity (Ref. 1, Sec. 4.1.4.2.2) (Same as line 7)	*	<u>100</u>
25.	Waste Characteristics (Ref. 1, Table 2-7, using 5×10^7) (Cadmium&Lead- $1,000 \times 100 \times 5,000 = 5 \times 10^7$)	1,000	<u>100</u>
<u>Targets</u>			
26.	Sensitive Environment:		
26a.	Level I Concentrations	**	—
26b.	Level II Concentrations	**	—
26c.	Potential Contamination	**	—
26d.	Sensitive Environments (Lines 26a + 26b + 26c)	**	—
27.	Targets (Value from Line 26d) (Ref. 1, Sec. 4.1.4.3.1.4)	**	<u>0</u>
<u>Environmental Threat Score</u>			
28.	Environmental Threat Score (Ref. 1, Sec. 4.1.4.4) ((Lines 22 x 25 x 27)/82,500, subject to a maximum of 60)	60	<u>0</u>
<u>Surface Water Overland/Flood Migration Component Score for a Watershed</u>			
29.	WATERSHED SCORE*** (Ref. 1, Sec. 4.1.5) (Lines 13 + 21 + 28, subject to a maximum of 100) ((Lines 14 x 17 x 20)/82,500 subject to a maximum of 100)	100	<u>60.36</u>
<u>Surface Water Overland/Flood Migration Component Score</u>			
30.	Component Score (S_{op})*** (Highest score from Line 29 for all watersheds evaluated, subject to a maximum of 100)(Ref. 1, Sec. 4.1.6)	100	<u>60.36</u>

* Maximum value applies to waste characteristics category

** Maximum value not applicable

*** Do not round to the nearest integer