US EPA RECORDS CENTER REGION 5
488487

ILD 980677595

Facility name: CONRAIL TRAINYARDS

Location: FAIRMONT CITY, IL

EPA Region: V

Person(s) in charge of the facility: CONSOLIDATED RAIL CORPORATION
J.C. CURRY, MGR., ENV. CONTROL
1528 WALNUT ST., PHILADELPHIA, PA 19102

Name of Reviewer: KEVIN SOBUOSKY, FIT Date: 11-7-85

General description of the facility:
(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

A RAIL TANK CAR WAS PUNCTURED IN APRIL 1984 AND SPILLED 19,000 GALLONS OF DIPHENOLMETHANEDIISOCYANATE. A PRIVATE ENVIRINMENTAL RESPONSE TEAM IMMEDIATELY REMOVED 1400 CUBIC YARDS OF SOIL. THE ILLINOIS EPA MONITORED THE CLEAN UP.

Scores: $S_M = 14.05$ ($S_{gw} = .3355$ $S_{sw} = 6.04$ $S_a = 0.00$)
$S_{FE} = 0.00$
$S_{DC} = 0.00$

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2	6	6	
Net Precipitation	0 1 2 3	1	1	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	0	3	
Physical State	0 1 2 3	1	3	3	
	Total Route Characteristics Score		10	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	15	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	3	8	
	Total Waste Characteristics Score		18	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	16	40	
	Total Targets Score		25	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			13,500	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 23.55			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 3	2	4	6	
Physical State	0 1 2 3	1	3	3	
Total Route Characteristics Score			9	15	
3 Containment	0 1 2 3	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	15	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	3	8	
Total Waste Characteristics Score			18	26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	2	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
Total Targets Score			8	55	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			3888	64,350	
7 Divide line 6 by 64,350 and multiply by 100			S_{sw} = 6.04		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet NA					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S_a = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score		NA	20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score		NA	39	
4 Multiply 1 x 2 x 3			NA	35,100	
5 Divide line 4 by 35,100 and multiply by 100		S_a = 0.00			

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	23.55	554.60
Surface Water Route Score (S_{sw})	6.04	36.48
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		591.08
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		24.31
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		14.05

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet NA					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	NA	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score			NA	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score			NA	24	
4 Multiply 1 x 2 x 3			NA	1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = 0.00		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	(0) 1 2	1	0	3	8.2
3 Containment	0 15	1	NA	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	NA	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
Distance to a Critical Habitat	0 1 2 3	4		12	
Total Targets Score			NA	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0.00	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 0.00			

FIGURE 12
DIRECT CONTACT WORK SHEET