Projected

SDMS Document
118360

Facility Name: American Cyanamid & Warners Plant

Location: Linden, Union County

EPA Region: II

Person(s) in Charge of the Facility:

Name of Reviewer: C. Sullivan Date: 7/12/88

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.)

Operating manufacturer of pesticides, water treatment chemical and mining products. Extensive history of spills to ground, air, and surface water. 1986 Search warrant and investigation indicated at least 37 negligent discharges to Arthur Kill and Rahway River. Numerous Orders issued

Scores: S_M = 42.09 (S_{gw} = 5.65 S_{sw} = 20.14 S_a = 69.74)

S_{FE} =

S_{DC} =

HRS COVER SHEET

Projected Score

GROUND WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	45	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	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	6	8	
Total Waste Characteristics Score			24	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	3	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
Total Targets Score			3	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			3240	57,330	
7 Divide line 6 by 57,330 and multiply by 100 S_{gw} = 5.65					

SURFACE WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	45	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		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score			15	
3 Containment	0 1 2 3	1		3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	6	8	
	Total Waste Characteristics Score		24	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	6	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		12	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			12960	64,350	
7 Divide line 6 by 64.350 and multiply by 100	S_{sw} = 20.14				

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	45	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S = 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	2	3	
Toxicity	0 1 2 3	3	9	9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	6	8	
	Total Waste Characteristics Score		17	20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 / 21 24 27 30	1	24	30	
Distance to Sensitive Environment	0 1 2 3	2	6	6	
Land Use	0 1 2 3	1	2	3	
	Total Targets Score		32	39	
4 Multiply 1 x 2 x 3			24480	35,100	
5 Divide line 4 by 35,100 and multiply by 100 S_a = 69.74					

	S	S^2
Groundwater Route Score (S_{gw})	5.65	31.92
Surface Water Route Score (S_{sw})	20.14	405.62
Air Route Score (S_a)	69.74	4863.67
$S_{gw}^2 + S_{sw}^2 + S_a^2$		5301.21
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		72.8%
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		S_M = 42.09

WORKSHEET FOR COMPUTING S_M