215842

Facility Name: GAF Corporation

Location: Linden, Union County

EPA Region: 2

Person(s) in Charge of the Facility:

Name of Reviewer: D. Restivo Date: 12/8/89

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.)

Chemical manufacturing began on site in 1919. Currently, tetrahydrofuran, surfactants and tradename products are manufactured on site. Groundwater & soil contamination have been documented on site.

Scores:

HRS $S_M = 25.88$ ($S_{gw} = 42.86$ $S_{sw} = 12.92$ $S_a = 0.00$)

PRO $S_M = 41.57$ ($S_{gw} = 42.86$ $S_{sw} = 17.62$ $S_a = 55.0$)

HRS COVER SHEET

Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multi-plier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	45	45	45
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					
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	—
4 Waste Characteristics					
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	18
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	3	8	3
Total Waste Characteristics Score			21	26	21
5 Targets					
Ground Water Use	0 1 2 3	3	6	9	6
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	20	40	20
Total Targets Score			26	49	26
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			24,570	57,330	24,570
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 42.86		42.86

Surface Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multi-plier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	0	45	45
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					
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	6	6	
Physical State	0 1 2 3	1	3	3	
Total Route Characteristics Score			11	15	—
3 Containment	0 1 2 3	1	3	3	—
4 Waste Characteristics					
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	18
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	3	8	3
Total Waste Characteristics Score			21	26	21
5 Targets					
Surface Water Use	0 1 2 3	3	6	9	6
Distance to a Sensitive Environment	0 1 2 3	2	6	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	0
Total Targets Score			12	55	12
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			8,316	64,350	11,340
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	12.92		17.62

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	0	45	45
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					
Reactivity and Incompatibility	0 (1) 2 3	1		3	1
Toxicity	0 1 2 (3)	3		9	9
Hazardous Waste Quantity	0 1 2 (3) 4 5 6 7 8	1		8	3
	Total Waste Characteristics Score			20	13
3 Targets					
Population Within 4-Mile Radius	0 9 12 15 18 21 (24) 27 30	1		30	24
Distance to Sensitive Environment	0 1 2 (3)	2		6	6
Land Use	0 1 2 (3)	1		3	3
	Total Targets Score			39	33
4 Multiply 1 x 2 x 3				35,100	19,305
5 Divide line 4 by 35,100 and multiply by 100 S_a =			0		55.0

HRS

	S	S^2
Groundwater Route Score (S_{gw})	42.86	1836.98
Surface Water Route Score (S_{sw})	12.92	166.93
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		2003.91
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		44.77
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		25.88

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	42.86	1836.98
Surface Water Route Score (S_{sw})	17.62	310.46
Air Route Score (S_a)	55.00	3025.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		5172.44
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		71.92
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		41.57

WORKSHEET FOR COMPUTING S_M