SDMS Document
118296

Facility Name: Aetna Chemical

Location: Elmwood Park, Bergen Co.

EPA Region: 2

Person(s) in Charge of the Facility: Robert Baldanzi

Name of Reviewer: D. Restivo Date: 8-16-90

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.)

Aetna is a chemical distributor. Materials are stored in elevated aboveground storage tanks. Soil sampling has revealed extensive contamination on site.

Scores:

HRS $S_M = 25.92$ ($S_{gw} = 44.84$ $S_{sw} = 0$ $S_a = 0$)

PRO $S_M = 43.88$ ($S_{gw} = 61.14$ $S_{sw} = 0$ $S_a = 45$)

HRS COVER SHEET

Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	0	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	4	6	
Net Precipitation	0 1 2 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3	
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	1	8	1
Total Waste Characteristics Score			19	26	19
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	35	40	35
Total Targets Score			41	49	41
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			25,707	57,330	35,055
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	44.84		61.14

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	0
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	0
1-yr. 24-hr. Rainfall	0 1 2 3	1	2	3	2
Distance to Nearest Surface Water	0 1 2 3	2	0	6	0
Physical State	0 1 2 3	1	3	3	3
Total Route Characteristics Score			5	15	5
3 Containment	0 1 2 3	1	3	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	1	8	1
Total Waste Characteristics Score			19	28	19
5 Targets					
Surface Water Use	0 1 2 3	3	0	9	0
Distance to a Sensitive Environment	0 1 2 3	2	0	6	0
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			0	55	0
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	64,350	0
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	0		0

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	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	3
Toxicity	0 1 2 3	3		9	9
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	1
	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	0
Land Use	0 1 2 3	1		3	3
	Total Targets Score			39	27
4 Multiply 1 x 2 x 3				35,100	15,795
5 Divide line 4 by 35,100 and multiply by 100 S_a =					45

HRS

	S	S^2
Groundwater Route Score (S_{gw})	44.84	2010.62
Surface Water Route Score (S_{sw})	0.00	0.00
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		2010.62
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		44.84
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		25.92

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	61.14	3738.10
Surface Water Route Score (S_{sw})	0.00	0.00
Air Route Score (S_a)	45	2025
$S_{gw}^2 + S_{sw}^2 + S_a^2$		5763.10
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		75.91
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		43.88

WORKSHEET FOR COMPUTING S_M