Facility name: GRANITE CITY / TARACORP

Location:

EPA Region: V

Person(s) in charge of the facility:

Name of Reviewer: M. HANEY Date: 3/83

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.)

Scores: S_M = 34.21 (S_{gw} = 4.49 S_{sw} = 4.36 S_a = 58.85)

S_{FE} =

S_{DC} =

FIGURE 1
HRS COVER SHEET

EPA Region 5 Records Ctr.
257709

Does not jive w/ Documentation Sheet
CEM
5/24/93

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	2	3	
Physical State	0 1 2 3	1	2	3	
	Total Route Characteristics Score		11	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	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
	Total Waste Characteristics Score		26	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			2574	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	4.49		

Skip - Observed Release

FIGURE 2
GROUND WATER ROUTE WORK SHEET

$45 \times 26 \times 3 = 3510$ $\qquad \frac{3510}{57330} \times 100 = 6.12$

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	0 (2)	6	
Physical State	0 1 2 3	1	2	3	
Total Route Characteristics Score			6 4	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	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
Total Waste Characteristics Score			26	26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	9	9	
Distance to a Sensitive Environment	0 1 2 3	2	0	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			9	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			2808	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	4.36		

5/24/82

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	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_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	9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	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	0	6	
Land Use	0 1 2 3	1	3	3	
	Total Targets Score		27	39	
4 Multiply 1 x 2 x 3	20655			35,100	
5 Divide line 4 by 35,100 and multiply by 100	S_a = 58.85				

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	4.49	20.16
Surface Water Route Score (S_{sw})	4.36	19.01
Air Route Score (S_a)	58.85	3463.32
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3502.49
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		59.18
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \Big/ 1.73 \quad S_M$		34.21

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max Score	Ref. Section
1 Containment	1 3	1		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				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				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			Score		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1		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 3	1		3	8.2
3 Containment	0 15	1		15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5		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				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				21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} =			

FIGURE 12
DIRECT CONTACT WORK SHEET