DECLASSIFIED

6/27/14 Date Initials

HRS COVER SHEET

CONFIDENTIAL

FACILITY NAME: Brooklyn Union Gas-Belmont Works

EPA I.D. #: NYD 980532097

ORIGINAL PRIORITY: Low

REVIEWED BY: Amy Brochu

REASSESSED PRIORITY: NFRAP

REVIEWED BY: Sharon Steltz

COMMENTS:

PREPARER: Sharon Steltz DATE: 9/1/88

266500

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HRS - □ PRO - O

Ground 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 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	2	6	6
Net Precipitation	0 1 2 3	1	3	3	3
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3	2
Physical State	0 1 2 3	1	3	3	3
Total Route Characteristics Score			10	15	14
3 Containment	0 1 2 3	1	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	7
Total Waste Characteristics Score			19	26	25
5 Targets					
Ground Water Use	0 1 2 3	3	3	9	3
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	0
Total Targets Score			3	49	3
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			570	57,330	3150
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	1.00		5.49

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HRS- 17 PRO-0

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	4	6	4
Physical State	0 1 2 3	1	3	3	3
Total Route Characteristics Score			9	15	9
3 Containment	0 1 2 3	1	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	7
Total Waste Characteristics Score			19	26	25
5 Targets					
Surface Water Use	0 1 2 3	3	6	9	6
Distance to a Sensitive Environment	0 1 2 3	2	0	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			6	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			1026	64,350	8100
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	1.59		12.59

HRS - 0 PRO - 0

Air Route Work Sheet					
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			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			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100	HRS & PRO S_a = 0				

FIGURE 9
AIR ROUTE WORK SHEET

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HRS

	S	S^2
Groundwater Route Score (S_{gw})	1.00	1.00
Surface Water Route Score (S_{sw})	1.59	2.53
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3.53
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		1.88
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		1.09

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	5.49	30.14
Surface Water Route Score (S_{sw})	12.59	158.51
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		188.65
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		13.73
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		7.94

WORKSHEET FOR COMPUTING S_M