DECLASSIFIED

Date: 12/13/16 Initial: jh

HRS COVER SHEET

CONFIDENTIAL

FACILITY NAME: Brooklyn Union Gas Company/Citizen's Gate Station

EPA I.D. #: NYD 980532212

ORIGINAL PRIORITY: Low

REVIEWED BY: Amy Brochu

REASSESSED PRIORITY: NFRAP

REVIEWED BY: Sandra L. Hansen

COMMENTS:

PREPARER: Sandra L. Hansen DATE: 8/16/88

298567

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HRS-A 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	0	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			8	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	1
Total Waste Characteristics Score			19	26	19
5 Targets					
Ground Water Use	0 1 2 3	3	0	9	0
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			0	49	1
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	57,330	798
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	0.00		1.39

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HRS-Δ PRO-O

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	0	3	3
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			7	15	10
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	1
Total Waste Characteristics Score			19	26	19
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	2
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	8
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			798	64,350	4560
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	1.24		7.08

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	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		S_a = 0			

FIGURE 9
AIR ROUTE WORK SHEET

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HRS

	S	S^2
Groundwater Route Score (S_{gw})	0.00	0.00
Surface Water Route Score (S_{sw})	1.24	1.54
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1.54
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		1.24
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0.72

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	1.39	1.93
Surface Water Route Score (S_{sw})	7.08	50.13
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		52.06
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		7.22
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		4.17

WORKSHEET FOR COMPUTING S_M