

SOLID WASTE SHIPMENTS

During the six month period from July 1, 1979 to December 30, 1979, 7 shipments of solid radioactive waste were sent to the Chem Nuclear, Barnwell Burial grounds. The shipments included 4450 cubic feet of material, which contained 16.34 curies of radioactive material.

<u>DATE SHIPPED</u>	<u>CURIES</u>	<u>CUBIC FEET</u>
July 20	0.54	529.2
July 27	1.47	611.0
August 13	4.38	711.7
August 14	4.86	687.0
September 10	0.67	525.0
November 5	1.23	876.0
November 8	1.18	510.0
	<u>16.34</u>	<u>4450.0</u>

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ROCHESTER GAS & ELECTRIC CORPORATION - GINNA STATION
AIRBORNE RELEASES
JULY - DECEMBER 1979

	UNITS	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
1. TOTAL NOBLE GASES	CURIES	130.617	33.083	56.935	47.476	62.628	285.271
2. TOTAL HALOGENS	CURIES	5.10 E-4	3.69 E-4	2.34 E-4	2.6 E-4	3.2 E-4	6.57 E-3
3. TOTAL PARTICULATE GROSS RADIOACTIVITY (B,Y)	CURIES	5.69 E-7	6.98 E-7	3.25 E-7	2.6 E-7	4.84 E-7	3.41 E-7
4. TOTAL TRITIUM	CURIES	39.7	3.74	3.49	2.99	4.67	0.93
5. TOTAL PARTICULATE GROSS ALAPHA RADIOACTIVITY	CURIES	6.35 E-8	8.3 E-8	2.23 E-8	5.0 E-8	3.64 E-8	3.1 E-8
6. MAXIMUM NOBLE GAS RELEASE RATE	MCI/Sec	4.3 E-3	1.24 E-5	7.2 E-6	N/A	4.19 E-5	5.08 E-3
7. PERCENT OF APPLICABLE LIMIT FOR:							
A. NOBLE GASSES	%	0.082	0.031	0.048	0.043	0.053	0.188
B. HALOGENS	%	0.586	0.212	0.226	0.135	0.293	6.690
C. PARTICUALTES	%	<0.001	<0.001	<0.001	<0.001	<0.001	0.010
8. ISOTOPE RELEASED:	CURIES						
PARTICULATES							
Cs-137		3.3 E-7	4.7 E-7	2.3 E-7	6.3 E-8	2.0 E-7	1.3 E-7
Cs-134			5.6 E-8		3.3 E-8		
Co-58		1.9 E-7			3.7 E-8		9.8 E-8
Co-60		3.7 E-7		3.0 E-7			
Ce-141				9.2 E-8			
HALOGENS							
I-131		4.49 E-4	1.65 E-4	1.74 E-4	1.1 E-4	2.2 E-4	5.19 E-3
I-133		6.075 E-5	2.04 E-4	1.6 E-4	1.5 E-4	9.9 E-5	1.38 E-3
GASES							
Kr-85		0.389		0.246	0.350	12.4	1.113
Xe-133		129.0	25.0	49.4	36.0	40.6	277.672
Kr-88			0.004	0.003	0.002		
Kr-85m		0.001	.545	0.003	0.612	0.449	0.599
Xe-131m		0.195		0.009	0.010	0.063	0.449
Xe-135		0.632	7.53	7.27	10.5	9.09	4.821
Ar-41		0.077	0.004	0.003	0.002	0.005	0.490
Xe-133m		0.323		0.001		0.021	0.127
OTHERS AS APPROPRIATE (SPECIFY)							
Np-239 PARTICULATE						7.1 E-7	7.1 E-7
Ce-144 PARTICULATE					2.2 E-8		6.6 E-8
Ba-La-140 PARTICULATE				1.3 E-7			
Mn-54 PARTICULATE		7.4 E-8				5.90 E-8	
Nb-95 PARTICULATE					1.2 E-7	9.0 E-8	1.1 E-7
Ru-103 PARTICULATE		8.5 E-8				2.7 E-8	
Ag-110m PARTICULATE				7.4 E-8		6.3 E-8	2.2 E-8
Sb-125 PARTICULATE			1.6 E-7			5.9 E-8	4.6 E-8
I-131 PARTICULATE			4.6 E-7	1.0 E-7			7.7 E-6

ROCHESTER GAS & ELECTRIC CORPORATION - GINNA STATION

LIQUID RELEASES

JULY - DECEMBER 1979

	UNITS	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
1. GROSS RADIOACTIVITY (BETA,GAMA)							
A. TOTAL RELEASE	CURIES	1.025 E-2	5.75 E-3	2.34 E-3	4.99 E-3	2.42 E-3	1.16 E-2
B. AVERAGE CONCENTRATION RELEASED	UCI/ml	1.99 E-10	2.77 E-11	4.51 E-11	7.34 E-11	2.66 E-11	2.03 E-10
C. MAXIMUM CONCENTRATION RELEASED	UCI/ml	9.42 E-9	3.59 E-9	3.8 E-9	1.98 E-9	7.78 E-10	9.9 E-9
2. TRITIUM							
A. TOTAL RELEASE	CURIES	10.96	18.72	25.4	30.18	27.5	30.1
B. AVERAGE CONCENTRATION RELEASED	UCI/ml	2.63 E-7	2.91 E-7	3.89 E-7	4.47 E-7	4.25 E-7	4.89 E-7
3. DISSOLVED NOBLE GASES							
A. TOTAL RELEASE	CURIES	ND	ND	ND	ND	ND	ND
B. AVERAGE CONCENTRATION RELEASED	UCI/ml	ND	ND	ND	ND	ND	ND
4. GROSS ALPHA RADIOACTIVITY							
A. TOTAL RELEASE	CURIES	ND	ND	ND	ND	ND	ND
B. AVERAGE CONCENTRATION RELEASED	UCI/ml	ND	ND	ND	ND	ND	ND
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	4.72 E+5	1.35 E+6	1.36 E+6	2.42 E+6	1.27 E+6	1.14 E+6
6. VOLUME OF DILUTION WATER	LITERS	4.16 E+10	6.44 E+10	6.54 E+10	6.76 E+10	6.54 E+10	6.17 E+10
7. ISOTOPES RELEASED							
I-131	CURIES	1.62 E-5	8.87 E-6	7.32 E-5	1.26 E-5		9.08 E-3
Ru-103	CURIES	1.25 E-5					4.24 E-5
Cs-137	CURIES	2.36 E-3	3.83 E-4	6.88 E-4	2.6 E-4	5.07 E-4	2.01 E-3
Cs-134	CURIES	4.97 E-4	8.66 E-5	3.85 E-4	9.09 E-5	1.14 E-5	5.9 E-4
Co-60	CURIES	3.42 E-3	9.55 E-4	1.53 E-3	4.35 E-3	1.05 E-3	2.5 E-4
Co-58	CURIES	2.46 E-4	9.62 E-6	3.23 E-5			4.49 E-5
Cr-51	CURIES	2.59 E-4		1.87 E-5			1.4 E-4
Mn-54	CURIES	1.11 E-4	3.29 E-6	2.12 E-5			1.54 E-5
Nb-95	CURIES	8.4 E-5		4.57 E-6			
Ag-110m	CURIES	1.32 E-5	1.19 E-4	1.24 E-5	1.91 E-5		
Ce-Pr-144	CURIES	1.21 E-4	3.55 E-5	1.89 E-5			
Np-239	CURIES	8.24 E-5	8.61 E-6				
Zr-95	CURIES	2.86 E-5	1.52 E-4	1.93 E-5	1.17 E-5		
Ba-La-140	CURIES	2.09 E-5		1.6 E-6			3.1 E-4
Cs-136	CURIES	8.63 E-4		5.5 E-5	2.1 E-4	6.67 E-5	5.42 E-5
Ru-106	CURIES	1.68 E-4		3.6 E-5			
Te-127m	CURIES		8.6 E-6	1.05 E-5			6.99 E-6
Mo-99	CURIES		1.67 E-5				
Fe-59	CURIES			3.24 E-5			
Te-132	CURIES			1.29 E-5			
TOTAL	CURIES	8.31 E-3	1.78 E-3	2.95 E-3	4.95 E-3	1.74 E-3	1.25 E-2
PERCENT OF MIXED MPC FOR TOTAL ACTIVITY RELEASED	%	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
* IN DISCHARGE CANAL							

2
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