

SHIPMENTS OF SOLID WASTE

DATE	TO	Cu. Ft.	CURIES
29 January 1979	Barnwell, S. C.	852	.32
1 February	Barnwell, S. C.	100	86.00
9 February	Barnwell, S. C.	427.5	1.74
27 February	Barnwell, S. C.	559	4.32
14 March	Barnwell, S. C.	834.5	7.00
23 March	Barnwell, S. C.	591	5.31
30 March	Barnwell, S. C.	846	8.77
19 April	Barnwell, S. C.	551	1.51
14 May	Barnwell, S. C.	529.2	1.38
18 May	Barnwell, S. C.	1065.	.53
29 May	Barnwell, S. C.	60	19.88

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APPENDIX A

REPORT RADIOACTIVE EFFLUENTS

FACILITY

DOCKET

YEAR

1. LIQUID RELEASES

	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE
1. GROSS RADIOACTIVITY (B,Y)							
A) TOTAL RELEASE (except 2, 3 & 4)	CURIES	.001134	.012612	.010978	.004159	.008093	.01206
B) AVERAGE CONCENTRATION RELEASED	μCi/ML	2.1E-11	3.57E-10	2.97E-11	6.70E-11	1.19E-10	1.84E-10
C) MAXIMUM CONCENTRATION RELEASED	μCi/ML	7.46E-9	9.14E-9	8.89E-9	2.79E-9	6.04E-9	2.55E-9
2. TRITIUM							
A) TOTAL RELEASE	CURIES	25.954	12.66	28.891	11.820	7.291	10.977
B) AVERAGE CONCENTRATION RELEASED	μCi/ML	4.8E-7	3.58E-7	7.82E-8	1.91E-7	1.08E-7	1.68E-7
C) PERCENT OF LIMIT	%	.016	.012	.003	.007	.004	.006
3. DISSOLVED NOBLE GASES							
A) TOTAL RELEASED	CURIES	ND	ND	ND	ND	ND	ND
B) AVERAGE CONCENTRATION RELEASED	μCi/ML						
4. GROSS ALPHA RADIOACTIVITY							
A) TOTAL RELEASE	CURIES	ND	8.3E-9	ND	ND	ND	ND
B) AVERAGE CONCENTRATION RELEASED	μCi/ML						
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	1.366E5	4.23E5	2.03E5	8.09E5	1.86E6	1.69E6
6. VOLUME OF DILUTION WATER	LITERS	5.41E10	3.53E10	3.69E11	6.20E10	6.78E10	6.54E10
7. ISOTOPES RELEASED	CURIES						
Cesium 141		ND	ND	6.70E-5	ND	ND	ND
Ruthenium 103		ND	6.78E-5	1.52E-4	9.01E-6	9.7E-7	ND
Cesium 137		4.32E-4	4.12E-3	1.62E-3	2.79E-4	1.43E-4	3.44E-4
Cesium 134		1.53E-4	6.20E-4	5.30E-4	7.49E-5	3.13E-5	1.46E-4
Cobalt 58		1.81E-5	2.45E-4	1.32E-3	5.75E-5	2.17E-5	1.62E-4
Cobalt 60		1.31E-4	6.08E-3	2.66E-3	2.87E-3	7.12E-3	9.80E-3
Manganese 54		2.94E-5	9.88E-5	2.83E-4	1.48E-5	3.24E-4	4.20E-4
Zirconium 95		ND	5.38E-5	8.62E-5	2.13E-4	7.36E-6	3.05E-4
Niobium 95		1.68E-5	2.19E-4	2.91E-4	2.13E-5	1.62E-5	1.11E-5
Cesium 144		1.07E-4	ND	3.37E-5	ND	5.22E-5	ND
Tellurium 132				1.95E-5	2.94E-6	1.91E-6	1.08E-4
Ruthenium 106		1.82E-4	5.92E-4	2.34E-4	9.01E-5	3.03E-5	1.61E-5
Silver 110m		1.07E-5	1.26E-4	1.77E-4	4.74E-5	1.17E-5	2.09E-4
Molybdenum 99				2.33E-4	5.00E-4	3.55E-4	ND
Barium 140				1.64E-5	ND	ND	ND
Chromium 51			2.46E-4	2.94E-3	ND	1.33E-5	ND
Iron 59			3.11E-5	1.28E-4	3.86E-6	ND	ND
Tellurium 129m			4.24E-5	1.29E-5	8.82E-6	ND	6.91E-5
Cesium 136		2.42E-5	ND	5.22E-5	ND	5.5E-6	3.43E-6
Neptunium 239				1.21E-4	ND	ND	ND
Iodine 131		1.23E-5	4.85E-5		ND	ND	2.18E-6
Tellurium 127m		1.72E-5	ND		9.22E-6	1.6E-6	1.39E-4
BA/LA 140			2.15E-5				
ZN-65							
SR-90							
PERCENT OF TECHNICAL SPECIFICATION LIMIT FOR ACTIVITY RELEASED	%	<.001	<.002	<.001	<.001	<.001	<.001

	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE
1. TOTAL NOBLE GASES	CURIES	19.278	53.270	11.338	5.538	17.413	39.186
2. TOTAL HALOGENS	CURIES	5.316E-3	2.831E-3	8.93E-5	5.78E-4	9.36E-4	7.98E-4
3. TOTAL PARTICULATE GROSS RADIOACTIVITY (B,Y)	CURIES						
4. TOTAL TRITIUM	CURIES	4.2E-7	3.83E-6	2.26E-6	1.32E-6	7.00E-7	5.5E-7
5. TOTAL PARTICULATE GROSS ALPHA RADIOACTIVITY		1.895	8.876	19.729	4.362	1.813	4.452
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SIC	2.0E-9	2.0E-9	ND	2.4E-8	5.6E-8	3.6E-8
7. PERCENT OF APPLICABLE LIMIT FOR:							
A. NOBLE GASSES	%	.017	.037	.008	.004	.014	.033
H. HALOGENS	%	1.23	1.42	.112	.184	.811	.585
C. PARTICULATES	%	<.001	<.001	<.001	<.001	<.001	.001
D. Tritium	%	.002	.009	.018	.004	.002	.004
8. ISOTOPE RELEASED:	CURIES						
PARTICULATES							
Cs-137			2.8E-8	6.00E-7		9.92E-8	
Cs-134			2.6E-8	2.15E-7			
Cr-51				4.10E-7			
Mn-54				2.52E-7		1.27E-8	
Co-58			1.98E-7	2.45E-7		2.99E-8	7.86E-8
Co-60			2.24E-7	1.35E-7		1.46E-8	3.56E-7
Zr-95				6.93E-8		9.31E-8	
Nb-95			5.9E-8	5.47E-8		6.45E-8	8.49E-8
Ru-103				3.89E-7	2.53E-8		
Ru-106							
Ag-110m				1.19E-7	3.35E-8	4.39E-8	
Sb-125					4.14E-8	4.18E-8	1.82E-7
Te-129							
Te-132				2.10E-6		5.21E-8	
Ba-La-140				8.73E-8	2.54E-8		
Ce-144				3.05E-8			
Ce-144				8.48E-8		4.84E-8	
HALOGENS							
I-131		9.56E-4	9.95E-4	8.7E-5	1.38E-4	6.3E-4	4.41E-4
I-133		4.36E-3	6.06E-4	2.3E-6	4.4E-4	8.73E-4	3.58E-4
I-135		ND	ND	ND	ND	ND	ND
I-132		ND	1.23E-3	ND	ND	ND	ND
GASES							
KR-85		4.181	.192	.966	.021	ND	.0688
XE-133		11.958	53.013	10.163	5.5142	14.74	33.2136
XE-133m		.0003	.032	ND	ND	ND	.0011
XE-131m		.038	.003	.209	ND	ND	.0022
KR-85M		.166	.0002	ND	.0002	.0424	.4334
KR-88		.001	ND	ND	.0003	.0024	ND
AR-41							
XE-135		2.618	.029	ND	.002	2.627	5.4656
AR-41		.316	.0004	ND	.0008	.0016	.0007

None Detected = ND or Blank Spaces



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