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REPORT OF RADIOACTIVE EFFLUENTS

Facility: Surry Power Station

DOCKET: 50-280 and 50-281

YEAR: 1983

LIQUID RELEASES		UNITS	January	February	March	April	May	June	TOTAL	± Error
Gross Radioactivity (By)										
(a)	Total Release	Curies	3.56E+0	8.37E-1	1.16E+0	1.05E+0	5.33E-1	1.98E+0		
(b)	Avg. Concentration Released	µCi/ml	1.40E-8	5.85E-9	8.56E-9	8.11E-9	2.73E-9	7.73E-9		
(c)	Maximum Concentration Released	µCi/ml	4.34E-8	9.67E-9	1.27E-8	1.11E-8	3.42E-9	2.03E-8		
Tritium										
(a)	Total Released	Curies	9.90E+1	4.67E+1	6.67E+1	4.24E+1	5.85E+1	5.88E+1	3.72E+2	3.16E+1
(b)	Avg. Concentration Released	µCi/ml	3.98E-7	2.99E-7	4.94E-7	3.21E-7	2.98E-7	2.49E-7		
Dissolved Noble Gases										
(a)	Total Release	Curies	2.73E+0	7.29E-1	1.21E-1	1.47E-1	1.49E-1	3.76E+0	7.64E+0	6.49E-1
(b)	Avg. Concentration Released	µCi/ml	1.10E-8	4.67E-9	8.86E-10	1.11E-9	7.60E-10	1.59E-8		
4. Gross Alpha Radioactivity										
(a)	Total Released	Curies	1.54E-4	6.39E-6	1.36E-5	2.32E-5	4.15E-5	4.88E-5	2.87E-4	2.44E-5
(b)	Avg. Concentration Released	µCi/ml	5.93E-13	5.24E-14	1.05E-13	1.74E-13	2.09E-13	2.04E-13		
5. Vol. of Liquid to Disch. Canal		Liters	4.94E+7	4.09E+7	4.22E+7	4.07E+7	4.81E+7	5.30E+7	2.74E+8	9.59E+6
6. Vol. of Dilution Water		Liters	2.49E+11	1.56E+11	1.35E+11	1.32E+11	1.96E+11	2.36E+11	1.10E+12	3.85E+10
7. Isotopes Released MPC µCi/ml		Curies								
	I-131 3×10^{-7}		3.24E-1	2.57E-1	9.74E-2	6.89E-2	3.56E-3	5.81E-3	7.57E-1	6.43E-2
	I-132 8×10^{-6}		*	2.92E-4	*	*	*	*	2.92E-4	2.48E-5
	I-133 1×10^{-6}		2.39E-2	2.65E-2	2.31E-4	5.01E-3	8.61E-6	6.63E-4	5.63E-2	4.79E-3
	I-134 2×10^{-5}		*	*	*	*	*	*		
	I-135 4×10^{-6}		9.76E-3	1.21E-3	*	1.18E-4	*	*	1.11E-2	9.35E-4
	Cs-134 9×10^{-6}		2.48E-1	1.85E-1	3.42E-1	2.59E-1	2.01E-1	1.50E-1	1.39E+0	1.18E-1
	Cs-136 6×10^{-5}		5.72E-5	2.00E-3	8.89E-4	6.06E-4	2.52E-5	*	3.58E-3	3.04E-4
	Cs-137 2×10^{-3}		3.34E-1	2.54E-1	4.61E-1	3.67E-1	2.91E-1	2.25E-1	1.93E+0	1.64E-1
	Kr-85 3×10^{-6}		*	*	*	*	*	*		
	Co-57 4×10^{-4}		*	3.14E-3	5.28E-5	1.98E-4	2.30E-3	7.13E-4	6.40E-3	5.44E-4
	Co-58 9×10^{-5}		9.04E-2	2.36E-1	6.40E-2	2.43E-1	4.08E-1	1.96E-1	1.24E+0	1.05E-1
	Co-60 3×10^{-5}		9.58E-2	1.19E-1	4.85E-2	9.04E-2	1.81E-1	1.29E-1	6.64E-1	5.64E-2
	Mn-54 1×10^{-4}		1.71E-3	3.85E-3	2.94E-3	5.75E-3	1.34E-2	9.07E-3	3.67E-2	3.12E-3
	Na-24 3×10^{-5}		2.21E-2	4.33E-2	1.05E-1	2.49E-1	1.81E-2	7.14E-3	4.45E-1	3.78E-2
	Cr-51 2×10^{-3}		1.57E-2	7.33E-2	6.58E-3	5.20E-2	6.12E-2	1.50E-2	2.24E-1	1.90E-2
	Fe-59 5×10^{-5}		2.10E-4	2.23E-3	*	1.28E-3	6.74E-4	7.55E-5	4.47E-3	3.80E-4
	Nb-95 1×10^{-4}		1.63E-3	7.25E-3	2.26E-3	9.10E-3	2.22E-2	1.01E-2	5.25E-2	4.46E-3
	Ba-La-140 2×10^{-5}		5.92E-5	1.31E-3	*	*	*	*	1.37E-3	1.16E-4
	Rb-88		2.61E-4	*	*	*	2.33E-4	*	4.94E-4	4.20E-5
	Sb-124 2×10^{-3}		4.55E-3	4.69E-3	1.53E-3	3.26E-3	3.50E-3	7.75E-4	1.83E-2	1.56E-3
	Sb-125 1×10^{-4}		5.72E-3	1.05E-2	5.06E-3	9.79E-3	1.67E-2	7.62E-3	5.54E-2	4.71E-3

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REPORT OF RADIOACTIVE EFFLUENTS

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FACILITY: Surry Power Station

DOCKET: 50-200 and 50-281

YEAR: 1983

1. LIQUID RELEASES (CON'T)

7. Isotopes Released MPC μ Ci/ml	UNITS	January	February	March	April	May	June	TOTAL	± Error
		Curies							
Ce-141	9 x 10 ⁻⁵	1.40E-4	1.10E-3	8.44E-5	*	1.22E-3	1.42E-4	2.69E-3	2.29E-4
Ce-144	1 x 10 ⁻⁵	2.16E-4	1.16E-3	2.27E-4	1.85E-3	9.81E-3	5.48E-3	1.87E-2	1.59E-3
Xe-131m	3 x 10 ⁻⁶	4.25E-2	1.26E-3	*	2.65E-3	5.36E-4	2.81E-2	7.50E-2	6.38E-3
Xe-133	3 x 10 ⁻⁶	2.57E+0	6.72E-1	8.73E-2	1.25E-1	1.44E-1	3.64E+0	7.24E+0	6.15E-1
Xe-135	3 x 10 ⁻⁶	9.87E-2	4.87E-2	3.30E-2	1.91E-2	2.81E-3	4.52E-2	2.48E-1	2.11E-2
Xe-133m	3 x 10 ⁻⁶	1.39E-2	4.80E-3	5.70E-4	1.96E-4	1.54E-3	4.14E-2	6.24E-2	5.30E-3
Ar-41	3 x 10 ⁻⁶	1.52E-5	*	*	5.76E-5	2.91E-5	6.65E-6	1.09E-4	9.27E-6
Sr-89	3 x 10 ⁻⁷	3.34E-4	2.17E-4	2.67E-4	8.24E-4	8.07E-4	1.02E-3	3.47E-3	2.95E-4
Sr-90	3 x 10 ⁻⁷	1.75E-4	1.14E-4	1.40E-4	1.52E-5	1.49E-5	1.88E-5	4.78E-4	4.06E-5
C-14	8 x 10 ⁻⁴	1.90E-3	1.24E-3	1.52E-3	7.21E-4	7.07E-4	8.92E-4	6.98E-3	5.93E-4
8. Percent of 10CFR20	Percent	8.28E-1	7.50E-1	3.20E-1	2.62E-1	5.05E-2	5.53E-1		
II. AIRBORNE RELEASES									
1. Total Noble Gases	Curies	8.12E+2	1.39E+3	5.50E+1	1.22E+3	7.72E+1	2.56E+2	3.81E+3	3.24E+2
2. Total Halogens	Curies	9.49E-3	1.96E-2	1.49E-3	5.77E-3	5.59E-4	2.11E-3	3.90E-2	3.32E-3
3. Total Particulate Gross Radioactivity (By)	Curies	1.10E-3	4.05E-4	7.98E-4	4.55E-4	1.01E-3	3.33E-4	4.1E-3	3.49E-4
4. Total Tritium	Curies	8.89E-1	4.42E+0	2.33E+0	2.38E+0	2.16E+0	6.55E-1	1.28E+1	1.09E+0
5. Total Particulate Gross Alpha Radioactivity	Curies	1.72E-5	7.14E-6	5.56E-6	1.20E-5	1.48E-5	8.19E-6	6.49E-5	5.52E-6
6. Maximum Noble Gas Release Rate	μ Ci/sec	7.75E+2	1.14E+4	1.32E+2	5.30E+4	6.53E+1	2.73E+2		
7. Percent of Applicable Limit for Technical Specifications									
(a) Noble Gases	Percent	5.05E-1	9.61E-1	3.43E-2	8.32E-1	4.80E-2	1.65E-1		
(b) Halogens	Percent	1.01E-1	2.26E-1	1.62E-2	4.80E-2	4.95E-3	1.26E-2		
(c) Particulates	Percent	1.87E-2	6.11E-3	1.04E-2	9.71E-3	1.41E-4	4.26E-3		
8. Isotopes Released:	Curies								
(a) Particulates									
Cs-134		4.01E-4	1.31E-4	2.53E-4	2.19E-4	3.69E-4	8.83E-5	1.46E-3	1.24E-4
Cr-51		*	*	1.51E-6	*	*	*	1.51E-6	1.28E-7
Cs-137		6.91E-4	2.39E-4	4.44E-2	4.52E-4	6.75E-4	1.76E-4	4.66E-2	3.96E-3
Cs-138		*	*	*	*	*	*		
Co-58		4.81E-4	4.84E-5	1.06E-4	8.87E-5	1.19E-4	4.68E-5	8.90E-4	7.57E-5
Co-60		9.14E-5	7.42E-5	1.21E-4	7.06E-5	9.76E-5	5.66E-5	5.11E-4	4.34E-5
Mn-54		1.95E-7	*	3.33E-6	*	*	*	3.53E-6	3.00E-7
Fe-59		*	*	1.60E-7	*	*	*	1.60E-7	1.36E-8
Rb-88		8.72E-5	1.26E-4	9.55E-4	*	*	2.83E-4	1.45E-3	1.23E-4

II. AIRBORNE RELEASES (CONT'D.)

	UNITS	January	February	March	April	May	June	TOTAL	+ - Error
8. Isotopes Released (con't.)	CURIES								
(a) Particulates (con't.)									
Nb-95		*	*	*	*	*	*		
Zn-65		*	*	*	7.14E-6	*	*	7.14E-6	6.07E-7
Zr-95		*	*	*	*	*	*		
Ru-103		*	*	*	*	7.05E-9	*	7.05E-9	5.99E-10
(b) Halogens									
I-131		9.00E-3	1.82E-2	1.45E-3	4.14E-3	4.42E-4	1.09E-3	3.43E-2	2.92E-3
I-132		*	*	*	*	*	*		
I-133		4.91E-4	1.44E-3	3.37E-5	1.36E-3	1.17E-4	7.72E-4	4.21E-3	3.58E-4
I-134		*	*	*	*	*	*		
I-135		*	*	*	2.72E-4	*	2.48E-4	5.20E-4	4.42E-5
(c) Gases									
Xe-133		8.10E+2	1.37E+3	5.43E+1	1.16E+3	7.72E+1	2.55E+2	3.73E+3	3.17E+2
Xe-133m		1.10E+0	6.71E+0	*	1.44E+1	*	*	2.22E+1	1.89E+0
Xe-135		6.40E-1	2.53E 0	1.75E-1	3.56E+1	*	4.40E-1	3.94E+1	3.35E+0
Kr-85m		*	*	*	5.29E-1	*	*	5.29E-1	4.50E-2
Kr-85		*	1.89E+0	*	*	*	*	1.89E+0	1.61E-1
Kr-87		*	*	*	*	*	*		
Kr-88		*	*	*	*	*	*		
Ar-41		*	*	*	*	*	*		
III. SOLID RADIOACTIVE WASTE DISPOSAL									
(a) Total Amount Solid Waste Packaged	Ft ³	5.47E+3	1.15E+4	1.11E+4	9.47E+3	5.31E+3	1.63E+4		
(b) Estimated Total Activity	Curies	5.41E+2	8.16E+1	4.98E+2	1.17E+2	6.94E+2	1.09E+1		
(c) Date of Shipment and Disposition		Barnwell, S.C.	Barnwell S.C.	Barnwell S.C.	Barnwell S.C.	Barnwell S.C.	Barnwell S.C.		
		1-5, 1-7	2-1, 3, 8,	3-2, 3, 4, 7,	4-5, 7, 8,	5-3, 5, 10,	6-1, 7, 8, 14,		
		1-11, 1-13	10, 16, 17,	8, 9, 11, 15,	13, 14, 15,	11, 16(2),	15, 24		
		1-14, 1-20	22, 23, 25,	17, 18, 22,	20, 26, 27,	18(2), 20,	Richland,		
		1-21, 1-25	Richland,	24, 28, 30,	28(2).	23, 26(2)	WA.		
		1-26, 1-28	WA.	Richland			6-3, 9, 10,		
		Richland, WA	2-7, 10, 14	WA.	Richland,	Richland	13(2), 16		
		1-4-83 (2)	15, 21(2),	3-14(2),	WA.	WA.	(2), 17, 21,		
		1-25-83	28(2).	21(2),	4-11(2), 18	5-9, 13, 23	23(2), 28(2),		
				28(2).	(2), 22.		30(2)		

REPORT OF RADIOACTIVE EFFLUENTS

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Facility: Surry Power Station

DOCKET: 50-280 and 50-281

YEAR: 1983

1. LIQUID RELEASES		UNITS	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL	± Error
1.	Gross Radioactivity (βγ)									
	(a) Total Release	Curies	2.83E-1	3.22E-1	4.87E-1	6.32E-1	2.92E+0	7.23E-1		
	(b) Avg. Concentration Released	μCi/ml	1.42E-9	1.91E-9	2.95E-9	2.93E-9	1.56E-8	4.38E-9		
	(c) Maximum Concentration Released	μCi/ml	3.27E-9	2.66E-9	3.51E-9	3.23E-9	5.18E-8	7.10E-9		
2.	Tritium									
	(a) Total Released	Curies	5.39E+1	2.82E+1	2.00E+1	8.54E+1	6.54E+1	9.25E+1	3.45E+2	2.93E+1
	(b) Avg. Concentration Released	μCi/ml	3.03E-7	1.68E-7	1.23E-7	3.94E-7	3.25E-7	5.44E-7		
3.	Dissolved Noble Gases									
	(a) Total Release	Curies	1.11E+0	1.20E-1	1.10E-1	4.06E-1	5.83E-1	1.48E+0	3.81E+0	3.24E-1
	(b) Avg. Concentration Released	μCi/ml	6.24E-9	7.14E-10	6.75E-10	1.87E-9	2.90E-9	8.71E-9		
4.	Gross Alpha Radioactivity									
	(a) Total Released	Curies	*	3.77E-5	1.58E-5	5.97E-5	3.84E-5	1.42E-5	1.66E-4	1.41E-5
	(b) Avg. Concentration Released	μCi/ml	*	2.33E-13	9.95E-14	2.75E-13	1.89E-13	8.25E-14		
5.	Vol. of Liquid to Disch. Canal	Liters	3.41E+7	2.51E+7	2.52E+7	2.68E+7	2.90E+7	2.73E+7	1.68E+8	5.88E+6
6.	Vol. of Dilution Water	Liters	1.78E+11	1.68E+11	1.63E+11	2.17E+11	2.01E+11	1.70E+11	1.10E+12	3.85E+10
7.	Isotopes Released MPC μCi/ml	Curies								
	I-131	3 x 10 ⁻⁷	3.08E-2	1.33E-2	1.06E-1	2.18E-1	2.35E-1	2.39E-1	8.42E-1	7.16E-2
	I-132	8 x 10 ⁻⁶	*	*	9.17E-5	1.14E-4	*	3.53E-4	5.59E-4	4.75E-5
	I-133	1 x 10 ⁻⁶	2.36E-3	3.28E-3	8.53E-3	1.09E-2	2.32E-2	3.20E-2	8.03E-2	6.83E-3
	I-134	2 x 10 ⁻⁵	3.92E-6	*	*	*	*	*	3.92E-6	3.33E-7
	I-135	4 x 10 ⁻⁶	*	1.53E-5	2.04E-4	1.74E-3	2.10E-3	5.32E-3	9.38E-3	7.97E-4
	Cs-134	9 x 10 ⁻⁶	7.84E-2	1.46E-1	1.36E-1	1.54E-1	1.15E-1	1.52E-1	7.81E-1	6.64E-2
	Cs-136	6 x 10 ⁻⁵	*	3.96E-5	1.19E-3	2.91E-4	*	7.91E-4	2.31E-3	1.96E-4
	Cs-137	2 x 10 ⁻⁵	1.38E-1	2.19E-1	2.06E-1	2.62E-1	2.17E-1	2.93E-1	1.34E+0	1.14E-1
	Kr-85	3 x 10 ⁻⁶	*	*	*	*	*	*	*	*
	Co-57	4 x 10 ⁻⁴	1.25E-4	8.58E-5	2.33E-4	5.53E-4	9.64E-5	4.75E-4	1.57E-3	1.33E-4
	Co-58	9 x 10 ⁻⁵	9.29E-2	8.93E-2	1.20E-1	1.13E-1	3.08E-2	8.08E-2	5.27E-1	4.48E-2
	Co-60	3 x 10 ⁻⁵	8.08E-2	5.88E-2	1.08E-1	1.55E-1	2.03E-1	1.42E-1	7.48E-1	6.36E-2
	Mn-54	1 x 10 ⁻⁴	3.34E-3	3.06E-3	3.71E-3	6.25E-3	3.01E-3	6.25E-3	2.56E-2	2.18E-3
	Na-24	3 x 10 ⁻⁵	1.82E-5	4.06E-5	6.66E-5	3.28E-4	2.21E-4	7.82E-5	7.53E-4	6.40E-5
	Cr-51	2 x 10 ⁻³	1.24E-2	2.16E-2	1.35E-2	1.06E-2	8.34E-4	6.12E-3	6.51E-2	5.53E-3
	Fe-59	5 x 10 ⁻⁵	6.22E-4	2.05E-4	4.12E-4	1.65E-4	*	7.59E-4	2.16E-3	1.84E-4
	Nb-95	1 x 10 ⁻⁴	2.13E-3	2.16E-3	1.69E-3	5.13E-3	1.12E-3	2.48E-3	1.47E-2	1.25E-3
	Na-La-140	2 x 10 ⁻⁵	3.86E-4	7.76E-6	2.76E-4	*	*	2.74E-4	9.44E-4	8.02E-5
	Rb-88	-	*	*	*	1.55E-4	*	4.79E-4	6.34E-4	5.39E-5
	Sb-124	2 x 10 ⁻⁵	5.05E-3	1.71E-3	3.33E-3	1.49E-3	1.86E-4	2.75E-3	1.45E-2	1.23E-3
	Sb-125	1 x 10 ⁻⁴	7.90E-3	2.35E-3	6.78E-3	3.48E-3	5.06E-3	5.32E-3	3.09E-2	2.63E-3

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DOCKET: 50-280 and 50-281

YEAR: 1983

1. LIQUID RELEASES (CON'T)

		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL	± Error	
7.	Isotopes Released MPC μ Ci/ml									
	UNITS									
	Curies									
	Ce-141	9 x 10 ⁻⁵	*	5.69E-6	*	*	*	5.69E-6	4.84E-7	
	Ce-144	1 x 10 ⁻⁵	2.50E-4	6.58E-4	2.46E-4	1.23E-3	1.14E-3	7.26E-4	4.25E-3	
	Xe-131m	3 x 10 ⁻⁶	1.53E-2	*	*	*	5.58E-4	9.20E-3	2.51E-2	
	Xe-133	3 x 10 ⁻⁶	1.07E+0	8.06E-2	7.62E-2	3.06E-1	4.09E-1	1.27E+0	3.21E+0	
	Xe-135	3 x 10 ⁻⁶	1.85E-2	3.90E-2	3.40E-2	9.57E-2	1.63E-1	1.85E-1	5.35E-1	
	Xe-133m	3 x 10 ⁻⁶	5.17E-3	3.26E-4	6.29E-5	2.42E-3	3.55E-3	1.08E-2	2.23E-2	
	Ar-41	3 x 10 ⁻⁶	1.08E-4	2.03E-5	9.91E-6	6.26E-5	1.81E-4	2.69E-5	4.09E-4	
	Sr-89	3 x 10 ⁻⁷	*	*	*	**	**	**	**	
	Sr-90	3 x 10 ⁻⁷	*	*	*	**	**	**	**	
	C-14	8 x 10 ⁻⁴	6.52E-3	5.20E-3	4.87E-3	**	**	**	**	
8.	Percent of 10CFR20	Percent	2.78E-1	7.02E-2	2.63E-1	4.18E-1	5.13E-1	8.01E-1		
II. AIRBORNE RELEASES										
1.	Total Noble Gases	Curies	4.83E+2	8.81E+0	4.14E+2	4.93E+1	4.23E+1	6.84E+2	1.68E+3	1.43E+2
2.	Total Halogens	Curies	2.68E-2	2.03E-2	2.12E-2	4.82E-3	6.62E-3	2.48E-2	1.05E-1	8.93E-3
3.	Total Particulate Gross Radioactivity (Bq)	Curies	2.09E-3	5.22E-4	5.15E-4	1.08E-3	1.76E-4	2.34E-4	4.62E-3	3.93E-4
4.	Total Tritium	Curies	2.36E+0	8.66E-1	1.45E+0	7.00E-1	1.25E+0	3.65E+0	1.03E+1	8.76E-1
5.	Total Particulate Gross Alpha Radioactivity	Curies	1.40E-5	1.52E-5	1.46E-5	4.84E-6	1.43E-6	4.23E-6	5.43E-5	4.62E-6
6.	Maximum Noble Gas Release Rate	μ Ci/sec	2.80E+4	3.12E+3	3.43E+4	1.52E+2	3.27E+1	4.72E+4		
7.	Percent of Applicable Limit for Technical Specifications									
	(a) Noble Gases	Percent	3.05E-1	5.86E-3	2.70E-1	3.18E-2	2.79E-2	4.46E-1		
	(b) Halogens	Percent	3.51E-2	3.39E-2	1.76E-1	3.00E-2	4.44E-2	1.40E-1		
	(c) Particulates	Percent	3.38E-2	6.43E-3	1.35E-2	9.34E-3	1.38E-3	2.44E-3		
8.	Isotopes Released:	Curies								
	(a) Particulates									
	Cs-134		9.28E-4	1.53E-4	8.03E-5	2.15E-4	4.17E-5	4.79E-5	1.47E-3	1.25E-4
	Cr-51		*	*	8.79E-7	4.19E-7	*	*	1.30E-6	1.11E-7
	Cs-137		1.68E-3	2.95E-4	1.33E-4	4.27E-4	6.60E-5	1.14E-4	2.72E-3	2.31E-4
	Cs-138		*	1.59E-4	5.29E-5	4.61E-4	1.29E-4	8.86E-6	8.11E-4	6.89E-5
	Co-58		2.22E-4	5.81E-5	6.35E-4	6.08E-5	3.08E-7	7.44E-6	9.84E-4	8.36E-5
	Co-60		1.80E-4	6.00E-5	3.00E-4	1.26E-4	1.12E-5	3.68E-5	7.14E-4	6.07E-5
	Mn-54		5.96E-6	7.58E-6	1.06E-5	4.83E-6	5.53E-8	2.75E-6	3.18E-5	2.70E-6
	Fe-59		*	*	*	*	*	*	*	*
	Rb-88		*	*	*	1.22E-3	3.03E-4	5.77E-4	2.10E-3	1.79E-4

II. AIRBORNE RELEASES (CONT'D.)

	UNITS	JULY	August	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL	+ - Error
8. Isotopes Released (con't.)	CURIES								
(a) Particulates (con't.)									
Nb-95		*	*	8.16E-7	1.71E-7	*	*	9.87E-7	8.39E-8
Zn-65		*	*	*	*	*	*		
Zr-95		*	*	*	1.28E-7	*	*	1.28E-7	1.09E-8
Ru-103		*	*	*	*	*	*		
(b) Halogens									
I-131		3.13E-3	3.02E-3	1.52E-2	2.68E-3	3.84E-3	1.25E-2	4.04E-2	3.43E-3
I-132		5.59E-3	3.48E-3	5.96E-4	*	*	3.00E-4	9.97E-3	8.47E-4
I-133		6.12E-3	4.10E-3	2.87E-3	1.59E-3	2.40E-3	1.05E-2	2.76E-2	2.35E-3
I-134		1.40E-3	3.56E-3	*	*	*	*	4.96E-3	4.22E-4
I-135		1.06E-2	6.16E-3	2.54E-3	5.53E-4	3.80E-4	1.46E-3	2.17E-2	1.84E-3
(c) Gases									
Xe-133		4.73E+2	8.50E+0	4.10E+2	4.83E+1	4.18E+1	6.54E+2	1.64E+3	1.39E 2
Xe-133m		6.56E+0	*	1.47E+0	*	*	2.28E+0	1.03E+1	8.76E-1
Xe-135		4.07E+0	3.08E-1	2.92E+0	9.27E-1	5.48E-1	7.41E+0	1.62E+1	1.38E+0
Kr-85m		*	*	*	5.00E-2	*	6.62E+0	6.67E+0	5.67E-1
Kr-85		*	*	*	*	*	1.97E+1	1.97E+1	1.67E+0
Kr-87		*	*	*	*	*	*	*	*
Kr-88		*	*	*	*	*	*	*	*
Ar-41		*	*	*	*	*	*	*	*
III. SOLID RADIOACTIVE WASTE DISPOSAL									
(a) Total Amount Solid Waste Packaged	Ft ³	1.03E+ 4	8.55E+3	8.43E+3	1.09E+4	6.47E+3	4.85E+3		
(b) Estimated Total Activity	Curies	3.63E+2	2.65E+1	4.71E+0	7.77E+2	2.48E+2	2.02E+2		
(c) Date of Shipment and Disposition		Barnwell,S.C. 7-5,6,7,8,15 (2),19,22(2),27	Barnwell,S.C. 8-2,5,9,11, 17,23,30	Barnwell,S.C. 9-1,6,15,28, 29	Barnwell,S.C. 10-10,14, 19(3),22,25	Barnwell,S.C. 11-3,8,13(3) 15,16,17(2)	Barnwell,S.C. 12-7,8,12,15, 20		
		Richland, W.A. 7-11(2),12(2), 13,20(2),25, 26	Richland, W.A. 8-4,8,10,15, 19,22,26.	Richland, W.A. 9-9,12,14,19, 22,26.	Richland W.A. 10-3,5,11,12 13,21,24,26, 27,28	Richland, W.A. 20,21,22,29 Richland, W.A. 11-7,10,30	Richland, W.A. 12-14,19(2), 20(3)		

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~~WRAY~~
TRoup

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

February 29, 1984

5 12:58

Mr. James P. O'Reilly
Regional Administrator
Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

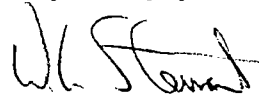
Serial No. 096
NO/WDC:acm
Docket Nos. 50-280/10
50-281
License Nos. DPR-32
DPR-37

Dear Sir:

RADIOACTIVITY IN EFFLUENT RELEASES AND SOLID WASTE
SURRY POWER STATION

Enclosed is the Surry Power Station Annual Report of Radioactivity in Effluent Releases and Solid Waste for the calendar year 1983. The fourth quarter liquid effluent sample analysis data for Sr-89, Sr-90, and C-14 is not included in this report because it has not been received from the vendor. A complete report will be forwarded when this data is received from the vendor.

Very truly yours,



W. L. Stewart

Enclosure

cc: Mr. R. C. DeYoung, Director
Office of Inspection and Enforcement

Mr. D. J. Burke
NRC Resident Inspector
Surry Power Station

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