

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

February 28, 1978

TELEPHONE: AREA 704
373-4083

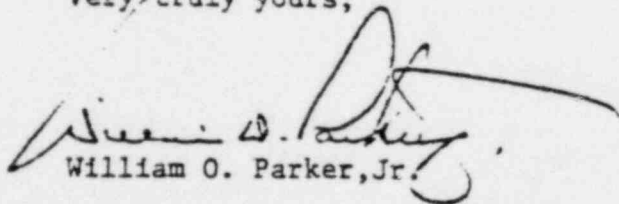
Mr. J. P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Suite 1217
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

RE: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. O'Reilly:

Pursuant to 10CFR 50.36a and Oconee Technical Specifications 6.6.1.2(c), please find attached data concerning radioactive effluents released from Oconee Nuclear Station. This information is reported on a semi-annual basis for the last six months of 1977.

Very truly yours,


William O. Parker, Jr.

LJB:ge
Attachment

cc: Director of Inspection and Enforcement

269, 270, 287
Envi Semi-Annual

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RADIOACTIVE EFFLUENT RELEASES

LIQUID AND AIRBORNE RELEASES

Liquid and airborne releases are reported in attached tables.

SOLID WASTES

Total volume of solid waste packaged (cubic feet) 37,895.4

Total estimated activity involved (curies) 7,366.7

*Disposal of materials shipped off-site:

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
7-5	238	28.11
7-5	599.2	1.17
7-7	238	.561
7-7	480	.003
7-8	185	9.14
7-8	384.1	101.19
7-9	238	31.93
7-11	185	10.37
7-12	7.5	12.75
7-13	185	4.3
7-14	710.5	.82
7-15	7.4	1.70
7-18	185	11.27
7-18	185	.79
7-20	538.2	100.45
7-20	238	24.26
7-21	238	8.83
7-22	238	2.59
7-22	410.9	.65
7-23	100	2.30
7-25	100	1.47
7-26	100	1.83
7-26	238	25.48
7-27	238	20.69
7-27	100	.20
7-27	238	11.24
7-28	402.3	.71
7-28	238	24.38
7-29	238	2.30
7-28	111.28	10.42
7-29	100	2.30
7-30		

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
7-31	238	52.84
8-1	100	2.17
8-3	238	13.60
8-3	616.32	.73
8-4	100	1.05
8-5	7.4	3.40
8-5	100	1.45
8-7	100	.76
8-8	238	23.47
8-8	100	.45
8-8	85.6	15.58
8-8	316.7	.46
8-9	238	.54
8-10	332.4	5.45
8-10	100	1.18
8-11	100	.65
8-12	238	87.62
8-12	100	.55
8-13	100	1.59
8-13	100	1.2
8-14	85.6	2441.4
8-15	100	1.95
8-15	185	2.24
8-16	238	820.76
8-17	185	2.55
8-17	759.2	.54
8-18	185	5.82
8-19	40	408.8
8-20	110	3.58
8-22	110	2.69
8-22	238	45.69
8-22	607.4	.46

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
8-23	100	2.62
8-24	105	2.41
8-24	238	2.27
8-25	110	2.82
8-26	60	280.5
8-26	316.7	24
8-29	110	2.45
8-29	110	1.16
8-31	110	3.27
8-31	376.6	33
8-31	60	510
9-1	110	2.30
9-1	7.5	100
9-2	110	2.3
9-2	238	71.65
9-3	185	6.76
9-5	110	.93
9-5	238	34.5
9-6	7.5	500
9-6	185	11.99
9-6	479.36	.44
9-7	110	.79
9-8	238	42.09
9-9	75	43.07
9-9	77.04	.07
9-9	185	1.89
9-10	185	1.71
9-11	110	1.34
9-11	185	1.21

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
9-13	185	1.18
9-13	1018.64	1.52
9-13	77.04	14.96
9-15	110	3.30
9-15	50	425
9-18	185	3.37
9-18	185	3.20
9-20	881.28	.53
9-23	238	2.68
9-25	238	12.42
9-26	573.52	1.01
9-28	238	6.09
9-28	238	500
9-30	419.44	1.03
10-1	238	4.06
10-3	185	4.73
10-4	7.4	2.0
10-5	185	11.53
10-5	308	.19
10-6	914.72	1.00
10-6	238	2.86
10-7	185	.95
10-9	238	8.65
10-9	185	1.4
10-10	185	1.5
10-11	185	2.32
10-12	7.5	8.5
10-14	684.8	2.50
10-14	110	5.66
10-17	110	1.98

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
10-18	110	1.71
10-19	110	2.32
10-19	110	2.82
10-21	110	3.68
10-24	659.12	1.33
10-28	607.36	1.21
10-31	238	12.24
11-2	256	.12
11-7	110	1.56
11-8	130	2.43
11-8	445.12	.37
11-9	205	4.52
11-12	238	4.73
11-15	238	9.98
11-16	667.68	.94
11-18	7.5	1.00
11-19	238	2.33
11-25	205	1.3
11-28	975.84	.78
11-30	238	10.41
12-1	320	.08
12-2	238	2.38
12-4	238	.80
12-5	7.5	.85
12-6	238	4.08
12-10	185	18.44
12-13	804.64	.28
12-15	185	.163
12-20	205	2.29

<u>DATE</u>	<u>CU. FT.</u>	<u>CURIES</u>
12-30	205	3.18
12-31	452.62	2.44
12-22	205	2.99
12-22	75	24.45
12-27	102.72	15.84
12-27	205	3.26
12-29	428	.69
12-30	205	3.87

*Disposition: All shipments to Chem-Nuclear Systems
Waste Disposal Facility at Barnwell, South Carolina

RADIOACTIVE EFFLUENT RELEASES

YEAR 1977

1. LIQUID RELEASES		UNITS	JULY	AUGUST	SEPTEMBER	SUB-TOTAL
1. GROSS RADIOACTIVITY						
A.	TOTAL RELEASE	CURIES	1.48E+00	2.77E+00	5.36E-01	4.18E+00
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	3.50E-08	3.98E-08	5.73E-09	2.39E-08
C.	MAXIMUM CONCENTRATION RELEASED	UCI/ML	3.30E-08	3.98E-08	3.33E-08	2.39E-08
2. TRITIUM						
A.	TOTAL RELEASE	CURIES	2.31E+02	1.30E+02	9.51E+01	4.56E+02
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	5.45E-05	5.66E-06	3.54E-07	2.60E-06
3. DISSOLVED NOBLE GASES						
A.	TOTAL RELEASE	CURIES	4.34E+00	5.27E-01	2.07E+00	5.74E+00
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	1.02E-07	2.29E-08	1.89E-08	3.96E-08
4. GROSS ALPHA RADIOACTIVITY						
A.	TOTAL RELEASE	CURIES	0.	0.	0.	0.
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	0.	0.	0.	0.
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL						
		LITERS	5.57E+08	1.02E+08	6.15E+07	7.20E+08
6. VOLUME OF DILUTION WATER						
		LITERS	4.24E+10	2.30E+10	1.10E+11	1.75E+11
7. ISOTOPES RELEASED						
		CURIES				
	3A-LA-140		6.83E-03	4.90E-03	1.13E-03	1.29E-02
	3R-09		2.45E-01	1.22E-02	9.83E-03	2.67E-01
	[-131		4.59E-02	2.15E-02	2.97E-02	9.71E-02
	[-133		5.38E-03	1.81E-03	7.16E-04	7.21E-03
	4E-133		4.05E+00	4.74E-01	2.00E+00	5.32E+00
	4E-135		2.14E-01	2.96E-02	1.42E-02	2.58E-01
	5S-137		8.86E-02	1.78E-01	1.14E-01	3.31E-01
	5S-134		5.01E-02	1.31E-01	5.90E-02	2.10E-01
	5S-60		2.37E-02	1.29E+00	7.67E-02	1.40E+00
	5S-56		6.36E-01	2.70E-01	2.12E-01	1.12E+00
	5R-51		1.11E-01	4.45E-02	2.44E-02	1.80E-01
	4N-54		2.92E-02	1.27E-02	1.05E-02	5.25E-02
	4R-07		1.28E-05	1.25E-05	0.	2.53E-05
	2R-07		2.01E-03	4.07E-03	1.53E-03	7.61E-03
	4B-07		5.70E-02	5.59E-02	3.31E-02	1.61E-01
	4B-07		4.92E-02	4.02E-03	9.81E-03	6.30E-02
	4E-1334		1.32E-04	2.01E-05	0.	1.52E-04
	[-132		1.34E-03	1.63E-03	1.35E-03	4.31E-03
	5S-136		8.42E-04	0.	1.27E-04	9.68E-04
	4R-554		2.03E-03	5.36E-05	1.37E-04	2.23E-03
	4R-48		0.	2.26E-05	0.	2.26E-05
	2N-45		1.56E-02	1.63E-03	1.23E-03	1.84E-02
	3R-00		0.	0.	0.	0.
	3R-02		0.	0.	0.	0.
	5E-144		8.16E-04	5.78E-05	2.01E-03	2.38E-03
	4N-56		0.	0.	0.	0.
	40-09		6.79E-04	1.64E-04	2.66E-03	3.50E-03
	5B-122		0.	0.	0.	0.
	4G-1104		4.83E-02	3.97E-02	2.69E-02	1.15E-01
	3A-139		0.	0.	0.	0.
	4B-05		2.18E-03	5.78E-03	6.92E-03	1.59E-02
	4E-59		7.35E-03	1.56E-03	9.48E-04	9.35E-03
	5B-124		0.	0.	0.	0.
	[-135		3.19E-04	0.	0.	3.19E-04
	4-107		0.	0.	0.	0.
	5S-1354		0.	0.	0.	0.
	4E-1314		2.33E-02	7.18E-04	3.90E-03	1.29E-02
	4R-05		4.44E-03	2.83E-03	2.55E-03	9.82E-03
	4P-239		0.	0.	0.	0.
	5S-07		1.34E-03	9.53E-04	7.64E-04	3.38E-03
	4E-004		4.70E-04	1.37E-04	4.43E-04	1.30E-03
	4A-24		2.98E-02	5.36E-05	9.58E-06	2.98E-02
	5D-1154		0.	0.	0.	0.
	7-02		0.	0.	0.	0.
	4N-1154		0.	0.	0.	0.
	5D-115		0.	0.	0.	0.
	5E-134		0.	0.	0.	0.
	4R-41		1.30E-04	0.	2.71E-04	4.30E-04
	[-134		0.	0.	0.	0.
	2B-03		1.56E-02	3.70E-04	3.40E-03	1.99E-02
	5N-1254		0.	0.	0.	0.
	5S-138		7.34E-05	1.59E-04	2.51E-04	4.33E-04
	4R-05		3.79E-04	1.93E-02	3.13E-02	7.10E-02
	4U-103		0.	0.	0.	0.
	5B-125		8.15E-03	3.41E-04	0.	3.49E-03
	5N-125		1.07E-02	4.55E-04	3.79E-03	2.00E-02
	4E-138		0.	0.	0.	0.
	5N-1234		3.73E-05	0.	0.	3.73E-05
	7-10		2.49E-02	0.	0.	2.49E-02
	4G-1004		1.07E-04	5.69E-05	3.52E-04	5.15E-04
	4E-1354		3.53E-04	0.	0.	3.53E-04

POOR ORIGINAL

8. PERCENT OF TECHNICAL SPECIFICATIONS LIMIT (150CI) FOR TOTAL ACTIVITY RE-

RADIOACTIVE EFFLUENT RELEASES

YEAR 1977

		UNITS	OCTOBER	NOVEMBER	DECEMBER	SUB-TOTAL
1. LIQUID RELEASES						
1. GROSS RADIOACTIVITY						
A.	TOTAL RELEASE	CURIES	3.14E-01	5.30E-01	7.03E-01	1.57E+00
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	2.73E-09	1.32E-08	7.37E-09	9.05E-09
C.	MAXIMUM CONCENTRATION RELEASED	UCI/ML	1.21E-08	5.09E-08	7.79E-08	3.43E-07
2. TRITIUM						
A.	TOTAL RELEASE	CURIES	7.41E+01	4.33E+01	5.73E+01	1.75E+02
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	6.44E-07	3.30E-07	7.50E-07	7.13E-07
3. DISSOLVED NOBLE GASES						
A.	TOTAL RELEASE	CURIES	9.09E-01	4.56E-01	7.56E-01	2.12E+00
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	7.70E-09	3.42E-09	3.42E-09	3.19E-09
4. GROSS ALPHA RADIOACTIVITY						
A.	TOTAL RELEASE	CURIES	0.	0.	0.	0.
B.	AVERAGE CONCENTRATION RELEASED	UCI/ML	0.	0.	0.	0.
5. VOLUME OF LIQUID WASTE TO DISCHARGE DAILY						
		LITERS	9.57E+07	4.00E+07	3.34E+07	1.69E+08
6. VOLUME OF DILUTION WATER						
		LITERS	1.15E+11	5.42E+10	3.97E+10	2.54E+11
7. ISOTOPES RELEASED						
		CURIES				
	3A-LA-1-0		4.73E-04	4.23E-04	1.24E-03	2.21E-03
	3R-09		1.44E-02	1.92E-02	1.57E-02	4.93E-02
	[-131		2.50E-02	4.50E-02	3.93E-02	1.11E-01
	[-133		3.38E-04	7.76E-03	3.53E-03	3.39E-02
	4B-133		3.34E-01	4.32E-01	7.33E-01	2.05E+00
	4B-135		1.56E-02	1.72E-02	1.39E-02	4.68E-02
	5S-137		5.75E-02	3.23E-02	2.74E-01	4.14E-01
	5S-134		3.07E-02	5.17E-02	1.55E-01	2.37E-01
	5C-60		4.15E-02	4.22E-02	2.32E-02	1.07E-01
	5C-58		9.57E-02	3.31E-02	3.07E-02	2.55E-01
	5R-51		7.58E-03	1.02E-02	9.72E-03	2.75E-02
	4N-54		7.34E-03	5.96E-03	3.15E-03	2.15E-02
	4R-07		0.	0.	0.	0.
	4R-07		1.58E-04	3.13E-05	1.37E-04	3.73E-04
	4B-07		1.20E-02	3.46E-03	2.62E-03	1.31E-01
	4B-07		9.32E-03	3.86E-03	7.68E-03	2.11E-01
	4E-133A		6.00E-06	4.36E-06	0.	1.13E-05
	[-132		1.79E-04	3.68E-04	7.24E-04	1.29E-03
	5S-135		1.97E-04	1.34E-03	0.	2.03E-03
	4R-55A		0.	5.55E-04	0.	5.55E-04
	4R-55		0.	0.	0.	0.
	2V-55		2.59E-03	2.78E-03	1.77E-03	5.14E-03
	5R-00		0.	0.	0.	0.
	5R-02		1.44E-03	1.34E-05	1.34E-03	2.33E-03
	5E-144		0.	0.	0.	0.
	4N-55		1.54E-03	1.08E-04	1.40E-03	3.15E-03
	4D-09		0.	0.	0.	0.
	5B-122		8.23E-03	7.00E-03	7.72E-03	2.29E-02
	4C-113A		0.	0.	0.	0.
	3A-139		3.20E-03	1.96E-03	2.33E-03	7.49E-03
	4B-09		5.59E-04	5.38E-04	1.15E-03	2.40E-03
	4E-59		0.	0.	0.	0.
	3B-124		5.24E-06	2.25E-04	3.04E-03	3.27E-03
	[-135		0.	3.13E-04	0.	3.13E-04
	[-137		0.	0.	0.	0.
	5S-135A		0.	5.29E-04	0.	5.29E-04
	4E-131A		0.	4.47E-05	1.79E-04	4.73E-04
	2R-05		6.29E-04	0.	0.	6.29E-04
	4P-239		0.	0.	0.	0.
	2D-57		3.45E-04	2.23E-04	5.24E-03	5.91E-03
	7C-094		2.71E-05	2.33E-04	1.23E-03	1.53E-03
	4A-24		1.30E-04	3.55E-05	0.	1.65E-04
	5D-115A		0.	0.	0.	0.
	7-02		0.	0.	0.	0.
	[V-115A		0.	7.98E-05	3.31E-04	4.31E-04
	5D-115		0.	0.	0.	0.
	5E-134		3.71E-04	1.57E-04	2.94E-04	8.43E-04
	4R-41		0.	0.	0.	0.
	[-134		1.42E-03	4.35E-03	2.12E-02	2.79E-02
	4B-55		0.	0.	0.	0.
	5N-125A		0.	3.52E-04	0.	3.52E-04
	5S-138		0.	0.	0.	0.
	4R-45		0.	0.	0.	0.
	3U-103		0.	0.	0.	0.
	3B-125		1.76E-03	3.74E-02	4.32E-03	4.95E-02
	3N-125		3.49E-03	1.37E-01	2.47E-02	3.93E-01
	4E-136		0.	0.	0.	0.
	5N-123A		0.	1.74E-05	0.	1.74E-05
	4-18		1.57E-04	0.	0.	1.57E-04
	4C-108A		2.18E-04	0.	0.	2.18E-04
	4E-135A		0.	0.	0.	0.

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	UNITS	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER	TOTAL
1. GROSS RADIOACTIVITY						
A. TOTAL RELEASE	CURIES	4.06E+00	3.57E+00	4.13E+00	1.57E+00	1.35E+01
B. AVERAGE CONCENTRATION RELEASED	UCI/4L	1.52E-08	1.24E-08	2.39E-08	5.05E-09	1.33E-07
C. MAXIMUM CONCENTRATION RELEASED	UCI/4L	3.35E-08	1.80E-08	2.39E-08	3.43E-08	2.38E-07
2. TRITIUM						
A. TOTAL RELEASE	CURIES	7.23E+02	5.54E+02	4.54E+02	1.85E+02	1.92E+03
B. AVERAGE CONCENTRATION RELEASED	UCI/4L	2.89E-06	1.88E-06	2.60E-06	7.13E-07	1.98E-05
3. DISSOLVED NOBLE GASES						
A. TOTAL RELEASE	CURIES	2.01E+00	1.17E+01	5.94E+00	2.12E+00	2.23E+01
B. AVERAGE CONCENTRATION RELEASED	UCI/4L	8.02E-09	3.95E-08	3.94E-08	3.19E-09	2.32E-07
4. GROSS ALPHA RADIOACTIVITY						
A. TOTAL RELEASE	CURIES	0.	0.	0.	0.	0.
B. AVERAGE CONCENTRATION RELEASED	UCI/4L	0.	0.	0.	0.	0.
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL						
	LITERS	4.49E+08	7.56E+08	7.20E+08	1.59E+09	2.09E+09
6. VOLUME OF DILUTION WATER						
	LITERS	2.50E+11	2.96E+11	1.75E+11	2.59E+11	9.80E+11
7. ISOTOPIES RELEASED						
	CURIES					
SA-LA-140		1.51E-03	9.54E-03	1.24E-02	2.21E-03	2.53E-02
SR-09		2.73E-01	3.34E-01	2.57E-01	4.93E-02	9.73E-01
I-131		2.72E+00	5.70E-01	7.71E-02	1.11E-01	3.93E-01
I-133		1.36E-02	5.39E-02	7.91E-03	5.39E-03	9.38E-02
XE-133		1.74E+00	1.13E+01	5.52E+00	2.75E+00	2.13E+01
XE-135		2.05E-01	1.57E-01	2.58E-01	4.58E-02	5.77E-01
CS-137		4.58E-01	9.97E-01	3.31E-01	4.14E-01	2.25E+00
CS-134		2.87E-01	5.52E-01	2.10E-01	2.37E-01	1.39E+00
CO-60		1.31E-02	5.77E-02	1.40E+00	1.07E-01	1.51E+00
CO-58		7.00E-02	3.98E-01	1.12E+00	2.55E-01	1.85E+00
CR-51		3.92E-03	3.11E-02	1.80E-01	2.75E-02	2.43E-01
MN-54		4.23E-03	1.93E-02	5.25E-02	2.15E-02	9.75E-02
KR-87		1.57E-05	0.	2.53E-05	0.	4.10E-05
ZR-97		0.	3.00E-05	7.61E-03	3.73E-04	3.01E-02
YB-97		1.31E-03	5.71E-03	1.51E-01	1.81E-02	1.86E-01
XE-133A		0.	1.03E-01	5.30E-02	2.11E-02	1.87E-01
I-132		0.	7.28E-04	1.52E-04	1.13E-05	3.91E-04
CS-136		3.14E-03	1.53E-02	4.31E-03	1.29E-03	2.55E-02
KR-85M		2.21E-03	2.18E-03	9.68E-04	2.03E-03	7.59E-03
KR-88		1.01E-03	1.02E-03	2.23E-03	5.55E-04	4.91E-03
ZV-65		0.	0.	2.25E-05	0.	2.26E-05
SR-90		7.43E-03	1.99E-02	1.34E-02	5.44E-03	5.22E-02
SR-92		0.	0.	0.	0.	0.
CE-144		0.	2.49E-02	2.38E-03	2.33E-03	3.06E-02
MN-55		0.	4.10E-06	0.	0.	4.10E-06
AO-99		7.70E-06	2.73E-02	3.50E-03	3.15E-03	2.70E-02
SB-122		0.	0.	0.	0.	0.
AG-110M		1.51E-03	1.25E-02	1.15E-01	2.29E-02	1.52E-01
SA-139		0.	0.	0.	0.	0.
YB-95		1.49E-05	1.04E-04	1.59E-02	7.49E-03	2.35E-02
FE-59		3.39E-04	2.17E-02	9.85E-03	2.40E-03	3.43E-02
SB-124		0.	0.	0.	0.	0.
I-135		0.	1.46E-03	3.19E-04	3.27E-03	1.00E-02
M-107		0.	0.	0.	3.13E-04	3.13E-04
CS-135A		0.	0.	0.	0.	0.
XE-131A		5.22E-02	4.12E-02	3.29E-02	5.29E-04	1.37E-01
ZR-95		1.35E-04	7.90E-04	9.32E-03	5.73E-04	1.17E-02
IP-239		0.	0.	0.	0.	0.
CO-57		4.33E-04	9.70E-04	3.78E-03	5.31E-03	1.03E-02
CO-99M		3.15E-04	9.43E-03	1.30E-03	1.54E-03	1.29E-02
HA-24		5.75E-04	1.10E-03	2.98E-02	1.26E-04	3.17E-02
CO-115A		0.	2.35E-04	0.	0.	2.35E-04
Z-92		0.	0.	0.	0.	0.
NI-115A		0.	2.40E-05	0.	4.33E-05	7.43E-05
CO-116		2.12E-03	5.31E-04	0.	5.31E-04	3.55E-03
CE-134		7.50E-04	0.	0.	0.	7.50E-04
KR-41		1.63E-05	2.14E-03	4.57E-04	5.41E-04	3.45E-03
I-134		0.	5.46E-06	0.	0.	5.46E-06
SB-88		5.14E-03	5.14E-02	1.99E-02	2.75E-02	1.24E-01
SN-125A		0.	4.51E-05	0.	0.	4.51E-05
CS-138		1.56E-04	0.	4.33E-04	5.42E-04	1.30E-03
KR-85		0.	2.53E-02	7.10E-02	0.	9.63E-02
PU-103		0.	5.46E-06	0.	0.	5.46E-06
SB-126		0.	1.24E-02	3.49E-03	4.68E-02	5.42E-02
SN-125		0.	2.22E-02	2.75E-02	1.46E-01	2.30E-01
XE-138		0.	0.	0.	0.	0.
SN-123A		0.	0.	3.79E-05	0.	3.79E-05
Z-10		0.	0.	0.	1.74E-05	1.74E-05
AG-108A		0.	0.	5.15E-04	1.47E-04	5.32E-04
XE-135A		0.	0.	3.57E-04	2.13E-04	5.31E-04

POOR ORIGINAL

8. PERCENT OF TECHNICAL SPECIFICATIONS
LIMIT (15 01) FOR TOTAL ACTIVITY RE-

RADIOACTIVE EFFLUENT RELEASES

UNIT	QUANTITY	UNIT	QUANTITY
1. LIQUID RELEASES		1. GROSS RADIOACTIVITY	
A. TOTAL RELEASE	4.14E+00	CURIES	1.57E+00
B. AVERAGE CONCENTRATION RELEASED	2.34E+00	UCI/ML	5.75E+00
C. MAXIMUM CONCENTRATION RELEASED	3.39E+00	UCI/ML	3.43E+00
2. TRITIA			
A. TOTAL RELEASE	4.55E+02	CURIES	1.55E+02
B. AVERAGE CONCENTRATION RELEASED	2.50E+00	UCI/ML	7.13E+07
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	5.44E+00	CURIES	2.12E+00
B. AVERAGE CONCENTRATION RELEASED	3.14E+00	UCI/ML	8.19E+09
4. GROSS ALPHA RADIOACTIVITY			
A. TOTAL RELEASE	0.0	CURIES	0.0
B. AVERAGE CONCENTRATION RELEASED	0.0	UCI/ML	0.0
5. VOLUME OF LIQUID WASTE DISCHARGE	7.27E+08	LITERS	1.59E+08
6. VOLUME OF DILUTION WATER	1.75E+11	LITERS	2.59E+11
7. GASES RELEASED			
A. TOTAL RELEASE	2.21E+02	CURIES	2.21E+02
B. AVERAGE CONCENTRATION RELEASED	2.47E+01	UCI/ML	4.93E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	9.71E+02	CURIES	1.11E+01
B. AVERAGE CONCENTRATION RELEASED	7.91E+03	UCI/ML	4.39E+03
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	5.52E+00	CURIES	2.55E+00
B. AVERAGE CONCENTRATION RELEASED	3.53E+01	UCI/ML	4.58E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.81E+01	CURIES	4.14E+01
B. AVERAGE CONCENTRATION RELEASED	2.10E+01	UCI/ML	2.37E+01
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.45E+00	CURIES	1.75E+01
B. AVERAGE CONCENTRATION RELEASED	1.12E+00	UCI/ML	2.45E+01
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.40E+01	CURIES	2.75E+02
B. AVERAGE CONCENTRATION RELEASED	7.51E+05	UCI/ML	2.15E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.38E+03	CURIES	2.38E+03
B. AVERAGE CONCENTRATION RELEASED	2.38E+03	UCI/ML	2.38E+03
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.50E+03	CURIES	3.15E+03
B. AVERAGE CONCENTRATION RELEASED	1.15E+01	UCI/ML	2.29E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.54E+02	CURIES	7.49E+03
B. AVERAGE CONCENTRATION RELEASED	9.95E+02	UCI/ML	2.40E+03
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.19E+04	CURIES	3.27E+03
B. AVERAGE CONCENTRATION RELEASED	3.19E+04	UCI/ML	3.13E+04
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.20E+02	CURIES	3.20E+02
B. AVERAGE CONCENTRATION RELEASED	3.20E+02	UCI/ML	3.20E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.06E+03	CURIES	3.06E+03
B. AVERAGE CONCENTRATION RELEASED	3.06E+03	UCI/ML	3.06E+03
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.44E+02	CURIES	2.44E+02
B. AVERAGE CONCENTRATION RELEASED	2.44E+02	UCI/ML	2.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	4.33E+04	CURIES	4.33E+04
B. AVERAGE CONCENTRATION RELEASED	4.33E+04	UCI/ML	4.33E+04
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.34E+02	CURIES	1.34E+02
B. AVERAGE CONCENTRATION RELEASED	1.34E+02	UCI/ML	1.34E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.44E+02	CURIES	2.44E+02
B. AVERAGE CONCENTRATION RELEASED	2.44E+02	UCI/ML	2.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.44E+02	CURIES	3.44E+02
B. AVERAGE CONCENTRATION RELEASED	3.44E+02	UCI/ML	3.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.34E+02	CURIES	1.34E+02
B. AVERAGE CONCENTRATION RELEASED	1.34E+02	UCI/ML	1.34E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.44E+02	CURIES	2.44E+02
B. AVERAGE CONCENTRATION RELEASED	2.44E+02	UCI/ML	2.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.44E+02	CURIES	3.44E+02
B. AVERAGE CONCENTRATION RELEASED	3.44E+02	UCI/ML	3.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.34E+02	CURIES	1.34E+02
B. AVERAGE CONCENTRATION RELEASED	1.34E+02	UCI/ML	1.34E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.44E+02	CURIES	2.44E+02
B. AVERAGE CONCENTRATION RELEASED	2.44E+02	UCI/ML	2.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.44E+02	CURIES	3.44E+02
B. AVERAGE CONCENTRATION RELEASED	3.44E+02	UCI/ML	3.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	1.34E+02	CURIES	1.34E+02
B. AVERAGE CONCENTRATION RELEASED	1.34E+02	UCI/ML	1.34E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	2.44E+02	CURIES	2.44E+02
B. AVERAGE CONCENTRATION RELEASED	2.44E+02	UCI/ML	2.44E+02
C. DISSOLVED BUBLE GASES			
A. TOTAL RELEASE	3.44E+02	CURIES	3.44E+02
B. AVERAGE CONCENTRATION RELEASED	3.44E+02	UCI/ML	3.44E+02
C. DISSOLVED BUBLE GASES			

POOR ORIGINAL

1. LIQUID RELEASES
 2. TRITIA
 3. DISSOLVED BUBLE GASES
 4. GROSS ALPHA RADIOACTIVITY
 5. VOLUME OF LIQUID WASTE DISCHARGE
 6. VOLUME OF DILUTION WATER
 7. GASES RELEASED

RADIOACTIVE EFFLUENT RELEASES

YEAR 1977

1. AIRBORNE RELEASES		UNITS	JULY	AUGUST	SEPTEMBER	SUB-TOTAL
1.	TOTAL NOBLE GASES	CURIES	1.04E+03	1.35E+03	2.60E+03	4.99E+03
1.	TOTAL HALOGENS	CURIES	9.87E-02	5.62E-04	7.41E-02	1.73E-01
1.	TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	1.86E-01	1.32E-05	7.52E-03	1.94E-01
1.	TOTAL TRITIUM	CURIES	3.59E-01	2.17E+00	2.03E+00	5.06E+00
1.	TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.	0.	0.	0.
1.	MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	1.60E+03	1.60E+03	1.60E+03	1.60E+03
2.	PERCENT OF APPLICABLE LIMIT FOR:					
1.	NOBLE GASES	%	2.03E+00	2.66E+00	5.09E+00	7.78E+00
1.	HALOGENS	%	2.50E+01	1.74E-01	1.95E+01	4.56E+01
1.	PARTICULATES	%	1.69E+01	1.20E-03	5.83E-01	1.76E+01
3.	ISOTOPES RELEASED	CURIES				
	PARTICULATES					
	CS-137		1.26E-03	1.78E-06	2.45E-04	1.51E-03
	BA-LA-140		0.	0.	1.82E-06	1.82E-06
	SR-90		1.60E-10	1.70E-10	1.48E-10	4.78E-10
	CS-134		4.42E-05	9.55E-07	7.57E-05	1.21E-04
	SR-89		7.97E-10	3.45E-10	7.36E-10	2.38E-09
	CO-58		4.03E-03	2.90E-06	1.58E-03	5.61E-03
	CS-136		0.	3.37E-09	2.14E-04	2.14E-04
	CS-138		1.01E-02	1.27E-07	9.98E-04	1.11E-02
	KA-54		3.18E-05	1.74E-09	5.08E-06	3.69E-05
	MO-99		3.99E-04	3.69E-09	1.31E-05	4.12E-04
	YB-95		0.	0.	0.	0.
	CO-60		1.28E-04	9.32E-07	6.72E-04	1.40E-03
	NA-24		1.98E-07	2.20E-08	0.	2.20E-07
	AG-1104		3.50E-06	7.94E-09	1.09E-05	1.44E-05
	CR-51		0.	1.33E-08	0.	1.33E-08
	SI-1234		0.	0.	0.	0.
	TE-124		0.	6.19E-09	3.96E-05	3.96E-05
	AG-1034		0.	1.34E-08	1.03E-08	2.37E-08
	TS-36		1.69E-01	5.42E-06	2.12E-03	1.72E-01
	YB-239		0.	0.	0.	0.
	CO-115		0.	0.	0.	0.
	CS-144		0.	0.	0.	0.
	SR-91		0.	0.	0.	0.
	TE-114		0.	0.	0.	0.
	RU-103		0.	0.	0.	0.
	KA-55		4.78E-07	0.	5.36E-07	1.01E-06
	BA-139		0.	0.	0.	0.
	SI-1254		0.	0.	0.	0.
	SI-92		0.	0.	0.	0.
	CO-57		6.09E-07	0.	0.	6.09E-07
	TE-94		1.37E-07	0.	0.	1.37E-07
	YB-95		0.	2.06E-08	1.54E-03	1.54E-03
	YB-97		0.	7.63E-09	0.	7.63E-09
	TE-97		0.	0.	0.	0.
	KA-167		0.	0.	0.	0.
	HALOGENS					
	I-131		3.03E-02	4.52E-04	5.85E-02	1.39E-01
	I-133		2.89E-03	2.26E-05	1.45E-02	1.74E-02
	I-135		2.50E-06	2.34E-07	3.27E-04	3.30E-04
	I-132		1.50E-06	1.37E-04	7.61E-05	2.65E-04
	I-134		2.06E-06	0.	9.95E-06	1.20E-05
	TE-124		1.55E-02	0.	3.90E-05	1.55E-02
	GASES					
	KR-85		1.54E+00	1.07E+01	9.83E+01	1.33E+01
	AR-39		1.01E+03	1.31E+03	2.43E+03	4.75E+03
	KR-84		3.86E+01	9.02E+04	2.29E+00	2.57E+00
	KR-87		3.36E-01	0.	6.95E-01	1.03E+00
	KR-854		2.58E-01	4.29E-01	3.70E+00	4.39E+00
	AR-38		4.33E-02	0.	1.23E-01	1.67E-01
	XE-1354		4.16E-01	0.	1.05E+00	1.48E+00
	XE-135		2.30E+01	2.11E+01	1.05E+02	1.50E+02
	AR-41		2.29E+00	2.90E+00	1.37E+00	5.56E+00
	AR-1334		5.38E-01	1.35E+01	4.25E+01	5.67E+01
	AR-1314		4.43E-01	1.57E-01	3.05E+00	3.66E+00

POOR ORIGINAL

RADIOACTIVE EFFLUENT RELEASES

II. AIRBORNE RELEASES

	UNITS	3rd QUARTER	4th QUARTER	YEAR 19
1. TOTAL NOBLE GASES	CURIES	4.39E+03	6.39E+03	1.14E
2. TOTAL HALOGENS	CURIES	1.73E-01	3.74E-03	1.31E
3. TOTAL PARTICULATE GROSS BETA-ACTIVITY	CURIES	1.24E-01	5.72E-03	2.00E
4. TOTAL TRITIUM	CURIES	5.36E+00	5.13E+00	1.12E
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.	0.	0.
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	1.50E+03	1.50E+03	1.50E
7. PERCENT OF APPLICABLE LIMIT FOR:				
a. NOBLE GASES	%	9.73E+00	1.25E+01	2.23E
b. HALOGENS	%	4.50E+01	2.12E+00	4.77E
c. PARTICULATES	%	1.74E+01	5.20E-01	1.31E
8. ISOTOPES RELEASED	CURIES			
PARTICULATES				
23-107		1.51E-03	5.58E-06	1.52E
24-LA-143		1.32E-06	9.72E-07	2.79E
37-90		4.79E-10	2.48E-10	7.46E
23-134		1.21E-04	7.99E-06	1.29E
32-34		2.38E-09	4.15E-09	5.54E
22-58		5.51E-03	4.29E-04	5.04E
23-136		2.14E-04	2.11E-07	2.14E
23-135		1.11E-02	4.00E-03	1.51E
41-54		3.59E-05	2.74E-07	3.71E
23-99		4.12E-04	3.50E-07	4.12E
23-95		0.	0.	0.
22-50		1.40E-03	6.37E-06	1.41E
24-24		2.20E-07	2.10E-05	2.12E
23-113		1.44E-05	2.34E-06	1.57E
23-31		1.33E-08	0.	1.33E
51-1234		0.	0.	0.
23-94		3.96E-05	1.74E-06	4.13E
42-100M		2.37E-08	6.35E-09	3.20E
23-50		1.72E-01	1.18E-03	1.73E
27-23y		0.	0.	0.
23-115		0.	3.73E-05	5.73E
22-144		0.	4.58E-08	4.58E
23-91		0.	1.51E-06	1.51E
23-94		0.	0.	0.
23-103		0.	2.33E-08	2.33E
23-55		1.01E-06	5.03E-07	1.51E
23-139		0.	0.	0.
23-125M		0.	0.	0.
23-92		0.	0.	0.
23-57		5.09E-07	5.71E-08	5.75E
23-34		1.37E-07	1.18E-09	1.34E
23-45		1.54E-03	5.33E-09	1.54E
23-47		7.63E-09	1.30E-09	3.73E
23-47		0.	5.30E-07	5.30E
23-47		0.	5.18E-09	5.18E
HALOGENS				
23-131		1.39E-01	3.06E-03	1.42E
23-133		1.74E-02	1.37E-03	1.93E
23-135		3.30E-04	2.96E-04	1.13E
23-132		2.45E-04	5.06E-05	3.45E
23-134		1.20E-05	1.27E-05	2.47E
23-13		1.55E-02	2.71E-03	1.52E
GASES				
23-55		1.33E+01	2.23E+01	3.56E
23-103		4.75E+03	5.59E+03	1.03E
23-96		2.57E+00	5.56E+01	3.85E
23-97		1.33E+00	7.53E+01	7.53E
23-134		4.34E+00	2.17E+01	2.31E
23-13		1.57E+01	1.24E+01	1.95E
23-134		1.48E+00	2.43E+01	2.56E
23-135		1.50E+02	3.51E+02	5.11E
23-41		5.59E+00	1.71E+01	1.57E
23-134		5.17E+01	5.37E+01	1.10E
23-134		1.55E+00	1.24E+02	1.33E
23-137		2.44E+01	4.77E+01	4.72E

POOR ORIGINAL

RADIOACTIVE EFFLUENT RELEASES

II. AIRBORNE RELEASES

	UNITS	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER	TOTAL
1. TOTAL NOBLE GASES	CURIES	1.54E+04	5.31E+03	4.99E+03	5.39E+03	3.56E+04
2. TOTAL HALOGENS	CURIES	4.15E-02	1.47E-01	1.73E-01	5.04E-03	3.70E-01
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	2.34E-03	5.47E-03	1.94E-01	5.72E-03	2.09E-01
4. TOTAL CRITICA	CURIES	1.48E+01	3.56E+01	5.05E+00	5.13E+00	5.26E+01
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.	0.	0.	0.	0.
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	1.50E+03	1.50E+03	1.50E+03	1.50E+03	1.50E+03
7. PERCENT OF APPLICABLE LIMIT FOR						
A. NOBLE GASES	%	3.02E+01	1.73E+01	2.73E+00	1.25E+01	5.98E+01
B. HALOGENS	%	1.79E+01	3.36E+01	4.56E+01	2.12E+00	9.72E+01
C. PARTICULATES	%	2.12E-01	5.38E-01	1.74E+01	5.20E-01	1.39E+01
8. EQUIPPES RELEASED	CURIES					
PARTICULATES						
CS-137		9.05E-07	1.95E-03	1.51E-03	5.58E-06	3.47E-03
BA-LA-140		5.72E-07	0.	1.82E-06	9.72E-07	3.39E-07
SR-90		2.15E-07	5.29E-04	4.73E-10	2.38E-10	5.29E-07
CS-134		4.91E-07	1.19E-03	1.21E-04	7.99E-06	1.32E-03
SM-59		6.51E-05	1.48E-03	2.38E-09	4.15E-09	1.49E-03
CS-56		6.72E-07	1.10E-04	5.51E-03	4.29E-04	5.15E-03
CS-136		0.	0.	2.14E-04	2.11E-07	2.14E-04
CS-135		4.15E-04	2.32E-05	1.11E-02	4.00E-03	1.55E-03
AI-54		1.44E-07	2.76E-06	3.69E-05	2.04E-07	4.00E-07
KO-59		0.	0.	4.12E-04	3.50E-07	4.12E-04
ND-107		0.	0.	0.	0.	0.
CO-60		1.21E-06	1.79E-04	1.40E-03	8.37E-06	1.59E-05
NA-24		5.97E-08	0.	2.20E-07	2.10E-05	2.13E-07
AD-110M		0.	2.73E-05	1.44E-05	2.34E-06	3.70E-05
CR-51		0.	1.37E-04	1.33E-08	0.	1.37E-04
SI-123A		0.	0.	0.	0.	0.
CO-57		2.70E-07	1.35E-04	3.96E-05	1.74E-06	1.77E-06
NA-23		0.	0.	2.37E-08	3.35E-09	3.20E-08
AD-105M		1.39E-03	1.18E-04	1.72E-01	1.13E-03	1.75E-01
RE-152		0.	0.	0.	0.	0.
IP-239		5.22E-07	0.	0.	5.73E-05	5.79E-07
CS-115		0.	4.96E-04	0.	4.58E-08	4.96E-04
CS-144		0.	0.	0.	1.51E-06	1.51E-06
SR-91		0.	0.	0.	0.	0.
Y-91		0.	0.	0.	2.33E-08	2.33E-08
RJ-103		0.	3.10E-11	1.01E-06	5.03E-07	1.51E-11
AN-56		1.15E-05	0.	0.	0.	1.15E-05
BA-134		1.96E-06	0.	0.	0.	1.96E-06
SR-125M		1.12E-06	0.	0.	0.	1.12E-06
SR-92		0.	1.23E-09	5.09E-07	5.71E-08	5.77E-09
CO-57		0.	0.	1.37E-07	1.13E-09	1.38E-07
RE-99		0.	0.	1.54E-03	5.83E-09	1.54E-03
ZR-95		0.	0.	7.63E-09	1.30E-09	3.73E-09
YB-97		0.	0.	0.	5.30E-07	5.30E-07
ZR-97		0.	0.	0.	5.18E-09	5.18E-09
N-167		0.	0.	0.	0.	0.
HALOGENS						
I-131		4.13E-02	1.43E-01	1.39E-01	3.06E-03	3.26E-01
I-133		1.82E-05	3.34E-03	1.74E-02	1.87E-03	2.25E-02
I-135		0.	0.	5.30E-04	2.96E-04	1.13E-03
I-132		2.03E-04	4.29E-05	2.55E-04	3.06E-05	5.92E-04
I-134		0.	4.55E-10	1.20E-05	1.27E-05	2.47E-10
F-18		0.	3.75E-07	1.55E-02	2.71E-03	1.32E-06
GASES						
KR-85		1.03E+01	7.54E+01	1.33E+01	2.23E+01	1.21E+02
XE-133		1.50E+04	5.53E+03	4.75E+03	5.59E+03	3.40E+04
KR-88		2.48E+01	1.55E+00	2.57E+00	4.58E+01	1.15E+02
KR-87		5.55E+00	7.47E-01	1.03E+00	7.53E+01	3.36E+01
KR-85M		1.15E+01	1.44E+00	4.34E+00	2.17E+01	3.21E+01
XE-135		5.29E+01	7.54E-01	1.97E+01	1.94E+01	2.79E+01
XE-135M		2.34E+00	4.23E-01	1.44E+00	2.43E+01	2.46E+00
XE-135		2.14E+02	1.98E+01	1.57E+02	3.51E+02	7.55E+02
I-131		5.31E+00	1.21E+00	5.51E+00	1.01E+01	2.42E+01
I-135		0.	0.	0.	5.11E-01	1.14E-01

POOR ORIGINAL

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

NUMBER
ENVIRO

TO: Mr Rusche		FROM: Duke Power Co Charlotte, NC W O Parker Jr		DATE OF DOCUMENT 11-18-76
				DATE RECEIVED 11-23-76
<input checked="" type="checkbox"/> LETTER	<input checked="" type="checkbox"/> NOTORIZED	PROP	INPUT FORM	NUMBER OF COPIES RECEIVED
<input checked="" type="checkbox"/> ORIGINAL	<input checked="" type="checkbox"/> UNCLASSIFIED			3 signed
<input type="checkbox"/> COPY				

DESCRIPTION	ENCLOSURE
Ltr notarized 11-18-76.....re their 7-30-76 ltr.....trans the following:	Amdt to OL/Change to Tech Specs: Consisting of revisions with regard to release of radioactive wastes.....(40 cys encl rec'd)
PLANT NAME: Oconee 1-3	DO NOT REMOVE ACKNOWLEDGED

SAFETY		FOR ACTION/INFORMATION		ENVIRO	11-23-76	ehf
ASSIGNED AD:		ASSIGNED AD:				
BRANCH CHIEF:	Schwenger (5)	BRANCH CHIEF:				
PROJECT MANAGER:	Zech	PROJECT MANAGER:				
LIC. ASST.:	Sheppard	LIC. ASST.:				

INTERNAL DISTRIBUTION			
<input checked="" type="checkbox"/> REG FILE	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY &
<input checked="" type="checkbox"/> NRC PDR	HEINEMAN	TEDESCO	ENVIRO ANALYSIS
<input checked="" type="checkbox"/> I & E (2)	SCHROEDER	BENAROYA	DENTON & MULLER
<input checked="" type="checkbox"/> OELD		LAINAS	
<input checked="" type="checkbox"/> GOSSICK & STAFF	ENGINEERING	IPPOLITO	ENVIRO TECH.
MIPC	MACCARRY	KIRKWOOD	ERNST
CASE	KNIGHT		BALLARD
HANAUER	SIHWEIL	OPERATING REACTORS	SPANGLER
HARLESS	PAWLICKI	STELLO	
			SITE TECH.
PROJECT MANAGEMENT	REACTOR SAFETY	OPERATING TECH.	GAMMILL
BOYD	ROSS	EISENHUT	STEFF
P. COLLINS	NOVAK	SHAO	HULMAN
HOUSTON	ROSZTOCZY	BAER	
PETERSON	CHECK	BUTLER	SITE ANALYSIS
MELTZ		GRIMES	VOLLMER
HELTHERS	AT & I		BUNCH
SKOVHOLT	SALTZMAN		J. COLLINS
	RUTBERG		KREGER

EXTERNAL DISTRIBUTION			CONTROL NUMBER
<input checked="" type="checkbox"/> LPDR: Walthall, SC	NAT LAB:	BROOKHAVEN NAT LAB	11884 7912300018P
<input checked="" type="checkbox"/> TIC:	REG. VIE	ULRIKSON (ORNL)	
<input checked="" type="checkbox"/> NSIC:	LA PDR		
<input checked="" type="checkbox"/> ASLB:	CONSULTANTS		
<input checked="" type="checkbox"/> ACRS 16 CYS HOLDING/SENT	As CAT B 11-22-76		

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

November 18, 1976

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

Regulatory Docket File
Mr. Benard A. Rusche, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

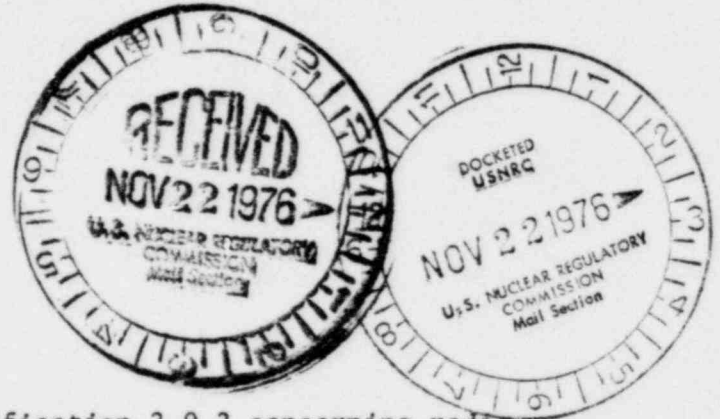
Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. Rusche:

The Oconee Nuclear Station Technical Specification 3.9.3 concerning radioactive liquid effluent releases states that releases from the station shall be controlled such that the instantaneous concentrations of radioactivity in liquid waste released from the Restricted Area do not exceed the values listed in 10CFR20, Appendix B, Table II, Column 2. Specification 3.9.7 further states that an effluent control monitor shall be set to alarm and automatically close the waste discharge valve such that the above requirements are met.

In our letter dated July 30, 1976, we informed you of the difficulty we were experiencing with high background readings which prevented the setting of the monitor as required by Specification 3.9.7. Prior to and since that time, considerable efforts have been expended in the solution of this problem. An off-line radiation monitor has been temporarily installed in order to more effectively decontaminate the monitor. Equipment and procedures have been provided which will allow flushing of the radiation monitors between releases to reduce the buildup of radioactivity on interior surfaces. Experimentation with various piping materials, coatings and surface finishes have also been conducted to obtain minimum background on the liquid effluent monitor. These actions have been successful in significantly reducing the average background seen by the detector and have resulted in the ability of the monitor to detect station releases.

However, efforts to correlate the liquid effluent monitor readings with a laboratory sample have been unsuccessful. The primary reason for this is considered to be the changing spectrum of radionuclides from release to release. Although it may be possible to calibrate the monitor to a specific predominate isotope, if one exists, it is believed impossible to calibrate a single monitor to the wide spectrum of radionuclides present in liquid waste effluents at the low levels of activity necessary to assure compliance with 10CFR20, Appendix B, Table II, Column 2 on an instantaneous basis as required by Technical Specification 3.9.7. The monitor is capable of detecting and alarming on gross changes in activity and can provide indication of an unexpected condition.



11884

November 18, 1976

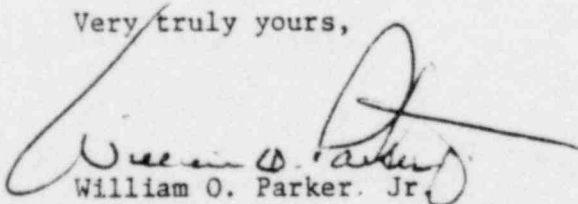
It is considered that our present Technical Specifications concerning liquid waste effluents are impractical to meet literally on a continuous basis. The provisions of 10CFR20, §20.106 permit the release of liquid radioactivity to an unrestricted area in concentrations which do not exceed 10CFR20, Appendix B, Table II, Column 2 amounts. These concentrations are permitted to be averaged over periods not exceeding one year. The provisions of 10CFR50, Appendix A, General Design Criterion 60, require that the design of the nuclear power unit shall include the means to control suitably the release of radioactive materials in liquid effluents produced during normal reactor operation. The design and operation of the Oconee Nuclear Station provides for the control of liquid radioactive effluents primarily by releasing only in a batch manner from tanks which have been isolated and sampled to assure the acceptability of the release. This method of sampling prior to release assures that the limits of 10CFR20 are met. The liquid effluent monitor is provided as a backup to detect gross changes which might occur from an unexpected release. The regulations do not require a monitor capable of alarming and automatically closing a waste discharge valve as required by the Technical Specifications.

For the above reasons, pursuant to 10CFR50, §50.90, revisions to the Oconee Nuclear Station Technical Specification 3.9, "Release of Radioactive Waste," are requested as indicated on the attached replacement page. These changes revise the maximum concentration of radioactivity in liquid waste to 35 times the concentrations specified in 10CFR20, Appendix B, Table II, Column 2 when averaged over the period of a batch release. This value is acceptable in that it assures compliance with 10CFR20.105 for permissible levels of radiation in the unrestricted area. The requirements for calibration of the liquid effluent monitor have been revised to require annual calibration by means of a known solid source; monthly checks with a known solid source; and daily instrument checks. The provisions for comparison with liquid effluent releases have been deleted.

The liquid effluent monitor is required to be operable during liquid effluent releases. However, in order to assure that the provisions of 10CFR20 are met, redundant valve lineup checks of the effluent pathway and redundant sample analyses will be performed prior to each liquid effluent release. Additionally, effluent releases will be permitted only from isolated tanks.

Your prompt attention to this matter is requested.

Very truly yours,

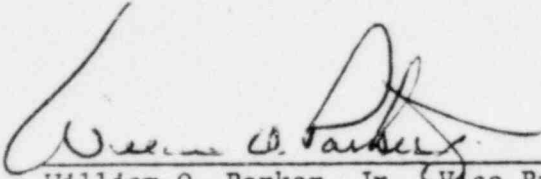


William O. Parker, Jr.

MST:ge
Attachment

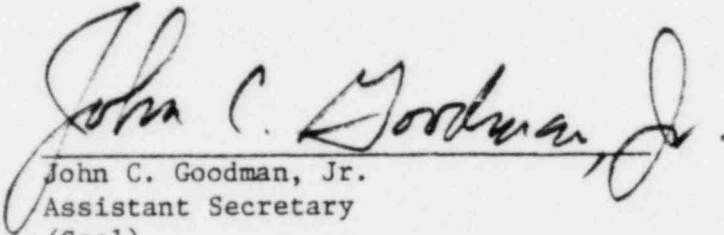
cc: Mr. Norman C. Moseley

WILLIAM O. PARKER, JR., being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38, -47 and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.



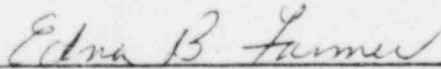
William O. Parker, Jr., Vice President

ATTEST:



John C. Goodman, Jr.
Assistant Secretary
(Seal)

Subscribed and sworn to before me this 18th day of November, 1976.



Notary Public
(Notarial Seal)

My Commission Expires:

October 24, 1977