

ACCESSION NBR: 8504090479 DUC DATE: 81/12/31 NOTARIZED: NO EFF-818 BUCKET #
 FACIL: 50-269 Oconee Nuclear Station, Unit 1, Duke Power Co. 05000269
 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co. 05000270
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287
 AUTH. NAME AUTHOR AFFILIATION
 PARKER, W.O. Duke Power Co.
 RECIP. NAME RECIPIENT AFFILIATION

O'REILLY, J.P. Region 2, Office of Director

SUBJECT: "Radioactive Effluent Releases, Solid Wastes, Semiannual Rept,
 Jul-Dec 1981." W/820226 ltr.

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 TITLE: Periodic Environ Monitoring Rept (50 DKT)-Annual/Semiannual/Effluent/

NOTES: AEOD/Ornstein: 1cy. 05000269
 OL: 02/06/73
 AEOD/Ornstein: 1cy. 05000270
 OL: 10/06/73
 AEOD/Ornstein: 1cy. 05000287
 OL: 07/19/74

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ID	CODE/NAME	LT	TR	ID	CODE/NAME	LT	TR
NRR	ORB4 BC 04	7	7				
INTERNAL:	ACRS 11	1	1	AEOD		1	1
	IE FILE 01	1	1	NRR/DE/EEB 08		1	1
	NRR/DL/DRAU 09	1	1	NRR/DSI/METB		2	2
	NRR/DSI/RAG 10	1	1	RGN2/DRSS/EPRPB		1	1
	RM/DDAMI/MIB	1	1				
EXTERNAL:	LPDR 03	1	1	NRC PDR 02		1	1
NOTES:		1	1				

OCONEE NUCLEAR STATION - 1981
 RADIOACTIVE EFFLUENT RELEASES
 SOLID WASTES SEMI-ANNUAL REPORT

Total volume of solid waste packaged (cubic feet) 87,472.40 for 1981.
 Total estimated activity involved (curies) 11,240.249 for 1981
 Disposal of materials shipped off-site: All 193 shipments were made to Chem
 Nuclear Systems waste disposal facility at Barnwell, South Carolina.

<u>DATE</u>	<u>CUBIC FEET</u>	<u># OF CURIES</u>
7/2/81	316	19.3
7/2/81	614	.3815
7/7/81	316	12.069
7/9/81	316	11.93
7/9/81	722	1.098
7/13/81	316	6.25419
7/15/81	316	4.91801
7/16/81	517.5	.6362
7/17/81	316	4.05312
7/20/81	316	3.74048
7/23/81	316	3.98918
7/27/81	316	2.30851
7/29/81	316	2.610
7/30/81	854	1.38408
7/30/81	316	2.7881
7/31/81	316	3.26421
8/4/81	316	2.41440
8/6/81	577	1.02696
8/6/81	316	2.5116
/10/81	316	2.53366
/11/81	316	1.95206
/12/81	316	1.84226
/12/81	200	15.332253
/13/81	930	.99336
/14/81	316	1.65632
/18/81	316	1.7951
/20/81	316	4.14918
/20/81	666	.78308

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<u>DATE</u>	<u>CUBIC FEET</u>	<u># OF CURIES</u>
8/24/81	316	3.59985
8/26/81	316	2.54883
8/27/81	678	1.43806
8/28/81	316	3.0799
9/1/81	316	4.3059
9/3/81	316	3.07885
9/3/81	966	.9772
9/8/81	316	3.11441
9/9/81	316	3.70149
9/10/81	316	7.98478
9/10/81	713.57	1.29371
9/11/81	316	9.24
9/14/81	316	7.42354
9/16/81	316	12.37064
9/18/81	915	2.6386
9/18/81	316	6.67661
9/21/81	612	.9996
9/22/81	316	11.426063
9/23/81	316	4.27191
9/24/81	892.5	2.2495
9/29/81	478	.61184
10/1/81	465	.9892
10/8/81	902.5	3.3691
10/15/81	816	1.86048
10/20/81	900	1.0425
10/22/81	200	2.15815
10/28/81	200	2.15815
10/29/81	915	1.4919
10/29/81	200	9.53031
11/9/81	200	8.06164
11/5/81	990.32	1.10582
11/10/81	200	4.124071
11/12/81	200	.04134

<u>DATE</u>	<u>CUBIC FEET</u>	<u># OF CUBES</u>
11/12/81	918	3.33683
11/13/81	933.12	.9812
11/16/81	200	1.55248
11/18/81	200	1.55248
11/19/81	847.5	.59187
11/23/81	200	3.52686
11/23/81	200	8.52344
11/25/81	200	2.382333
11/25/81	964.71	.52955
12/2/81	900	.9473
12/2/81	200	2.38233
12/3/81	85	.1747
12/4/81	880	.89064
12/4/81	322	5.15
12/8/81	1	5.461
12/7/81	200	2.31968
12/10/81	200	1.72542
12/9/81	918.93	.90335
12/10/81	200	1.561321
12/14/81	966.29	1.48264
12/16/81	112.5	11.31
12/17/81	1	6098.4
12/16/81	200	1.352236
12/17/81	200	1.624048
12/18/81	200	1.209411
12/18/81	987.81	1.65257
12/21/81	200	1.209411
12/23/81	200	1.29803
12/28/81	200	1.129803
12/29/81	915	1.0193
12/30/81	190	1.24

RELEASES		UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL
YEAR : 1981							
GROSS RADIOACTIVITY							
A. TOTAL RELEASE	CURIES	2.78E-01	7.80E-02	1.60E-01	9.33E-01	1.75E+00	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	1.48E-09	5.35E-10	2.54E-09	8.85E-09	2.82E-09	
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	2.95E-08	1.84E-08	8.90E-08	3.26E-08	3.69E-08	
2. TRITIUM							
A. TOTAL RELEASE	CURIES	6.51E+01	1.70E+02	1.57E+02	1.14E+02	5.07E+02	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	3.47E-07	1.17E-06	8.69E-07	1.08E-06	8.17E-07	
3. DISSOLVED MOBILE GASES							
A. TOTAL RELEASE	CURIES	1.28E+00	7.05E-01	3.71E+00	1.15E+00	6.84E+00	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	6.82E-09	4.84E-09	2.05E-08	1.09E-08	1.10E-08	
4. GROSS ALPHA ACTIVITY							
A. TOTAL RELEASE	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL							
	LITERS	3.10E+07	1.39E+07	1.69E+07	9.38E+07	1.56E+08	
6. VOLUME OF DILUTION WATER							
	LITERS	1.87E+11	1.46E+11	1.81E+11	1.05E+11	6.20E+11	
7. RADIONUCLIDES RELEASED							
	CURIES						
F-18		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
MA-24		6.47E-05	2.31E-05	3.17E-06	1.38E-04	2.29E-04	
AR-41		1.01E-05	0.00E+00	5.88E-05	1.81E-05	8.70E-05	
CR-51		2.72E-03	7.86E-04	1.09E-02	2.38E-02	3.82E-02	
MN-54		6.96E-04	1.16E-04	2.76E-03	6.90E-03	1.05E-02	
MN-56		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
CO-57		1.08E-05	6.13E-05	0.00E+00	8.38E-05	1.56E-04	
CO-58		8.45E-02	7.38E-03	4.67E-02	5.90E-02	1.98E-01	
CO-60		5.07E-03	3.80E-03	1.31E-02	6.34E-03	2.83E-02	
FE-59		0.00E+00	0.00E+00	7.83E-05	3.44E-05	1.13E-04	
NI-65		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
ZN-65		0.00E+00	0.00E+00	0.00E+00	2.32E-05	2.32E-05	
KR-85		1.17E-01	6.02E-02	2.84E-01	6.88E-01	1.15E+00	
KR-85M		3.68E-07	0.00E+00	5.53E-04	0.00E+00	5.53E-04	
KR-87		5.50E-06	0.00E+00	0.00E+00	3.36E-06	8.67E-06	
KR-88		0.00E+00	0.00E+00	1.15E-04	1.90E-04	2.95E-04	
Y-88		0.00E+00	0.00E+00	0.00E+00	2.12E-05	2.12E-05	
Y-92		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SR-89		3.96E-03	2.33E-04	3.93E-04	1.06E-02	1.54E-02	
SR-90		9.07E-04	1.22E-04	1.00E-04	6.13E-04	1.74E-03	
SR-91		9.43E-05	1.44E-05	4.29E-04	3.02E-03	3.56E-03	
SR-92		2.56E-04	5.60E-05	1.14E-04	2.88E-04	7.16E-04	
MB-95		6.96E-05	7.57E-06	2.71E-04	1.64E-04	5.11E-04	
MB-97		2.32E-03	7.79E-04	8.28E-03	3.04E-03	1.44E-02	
ZR-95		0.00E+00	0.00E+00	0.00E+00	4.05E-05	4.05E-05	
ZR-97		1.75E-07	0.00E+00	0.00E+00	3.71E-05	3.73E-05	
MO-99		7.17E-04	3.52E-04	3.92E-03	1.92E-02	2.41E-02	
TC-99M		8.73E-07	6.82E-06	2.43E-05	1.35E-06	3.33E-05	
RU-103		3.49E-06	0.00E+00	4.09E-06	8.77E-06	1.63E-05	
RU-103M		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RU-106		2.25E-03	7.17E-04	7.53E-03	2.28E-02	3.33E-02	
AG-108M		2.50E-06	0.00E+00	0.00E+00	0.00E+00	2.50E-06	
AG-110M		1.20E-03	2.87E-04	7.15E-04	8.78E-04	3.08E-03	
CD-109		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
CD-115		8.43E-05	1.33E-05	2.79E-04	2.76E-03	3.14E-03	
CD-115M		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
IN-115M		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SR-122		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SB-124		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SB-125		1.60E-04	9.89E-05	1.10E-03	6.43E-03	7.79E-03	
SM-123M		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
SM-125		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-131		2.98E-02	1.26E-02	4.48E-02	2.91E-02	1.16E-01	
I-132		3.87E-06	0.00E+00	0.00E+00	1.66E-04	1.70E-04	
I-133		4.72E-04	8.46E-04	4.25E-04	1.70E-04	1.91E-03	
I-134		2.31E-04	1.74E-04	6.05E-04	5.11E-04	1.52E-03	
I-135		1.92E-05	0.00E+00	1.62E-03	5.88E-04	2.23E-03	
XE-131M		2.19E-02	5.68E-03	5.86E-02	1.32E-02	9.93E-02	
XE-133		1.13E+00	5.58E-01	3.24E+00	4.44E-01	5.37E+00	
XE-133M		6.00E-03	1.05E-02	3.37E-02	3.66E-03	5.39E-02	
XE-135		6.00E-03	7.12E-02	8.65E-02	3.44E-03	1.67E-01	
CE-134		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
CE-141		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
CE-144		1.17E-03	5.35E-04	5.66E-03	1.87E-02	2.61E-02	
CS-134		5.14E-02	1.69E-02	1.07E-01	3.09E-01	4.85E-01	
CS-135M		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
CS-136		5.38E-04	7.53E-05	7.10E-03	7.31E-03	1.50E-02	
CS-137		8.55E-02	3.05E-02	1.85E-01	3.71E-01	6.72E-01	
CS-138		2.10E-05	2.51E-04	1.66E-03	3.74E-05	1.97E-03	
BA-139		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
BA-LA-140		6.83E-04	3.41E-04	3.77E-03	1.27E-02	1.75E-02	
W-187		5.07E-04	2.36E-04	2.90E-03	1.01E-02	1.37E-02	
NP-239		1.21E-04	6.45E-05	1.22E-03	8.10E-03	9.50E-03	
8. PERCENT OF TECHNICAL SPECIFICATIONS							
LIMIT (15 CI) FOR TOTAL GROSS ACTIVITY							
RELEASED		1.85E+00	5.20E-01	3.06E+00	6.22E+00	1.17E+01	

OCONEE NUCLEAR STATION
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/19/82

BORNE RELEASES		UNITS	1ST QTR	2ND QTR	3R	4TH QTR	YEAR : 1981 TOTAL
1. TOTAL NOBLE GASES	CURIES		3.84E+03	2.63E+03	4.61E+03	5.17E+03	1.63E+04
2. TOTAL HALOGENS	CURIES		3.83E-02	4.07E-02	1.87E-01	3.09E-02	2.97E-01
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES		2.31E-03	1.58E-03	1.48E-02	8.08E-03	2.68E-02
4. TOTAL TRITIUM	CURIES		1.21E+01	4.01E-01	7.24E+00	3.79E+01	5.77E+01
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC		1.60E+03	1.60E+03	1.60E+03	1.60E+03	1.60E+03
7. PERCENT OF APPLICABLE LIMIT FOR :							
A. NOBLE GASES	Z		7.53E+00	5.16E+00	9.05E+00	1.01E+01	3.19E+01
B. HALOGENS	Z		1.01E+01	1.07E+01	4.92E+01	8.13E+00	7.81E+01
C. PARTICULATES	Z		2.10E-01	1.44E-01	1.35E+00	7.34E-01	2.44E+00
B. RADIONUCLIDES RELEASED	CURIES						
PARTICULATES							
C-14			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
P-32			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CR-51			2.21E-04	2.84E-05	8.10E-04	3.41E-04	1.49E-03
MN-54			4.17E-06	7.07E-06	1.16E-04	1.75E-05	1.45E-04
FE-55			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FE-59			1.98E-05	1.30E-05	4.90E-05	3.67E-05	1.18E-04
CO-58			1.30E-04	2.55E-05	3.97E-03	2.62E-03	6.74E-03
CO-60			1.20E-04	9.19E-05	8.00E-04	5.65E-04	1.58E-03
NI-63			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZN-65			2.36E-05	1.52E-06	4.85E-05	5.15E-05	1.25E-04
RB-86			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR-89			1.33E-08	5.03E-09	6.98E-09	2.48E-09	2.98E-08
SR-90			4.63E-10	1.17E-09	6.41E-10	6.97E-10	2.97E-09
Y-91			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ZR-95			4.68E-06	5.56E-08	4.96E-04	2.49E-05	5.24E-04
NB-95			1.81E-06	8.43E-06	2.23E-05	2.62E-05	5.04E-05
MO-99			1.93E-04	1.75E-05	4.50E-04	2.58E-04	9.19E-04
RU-103			2.81E-07	4.12E-06	9.65E-05	3.56E-06	9.68E-05
RU-106			2.36E-04	2.15E-05	4.27E-04	3.26E-04	1.01E-03
AG-110M			3.62E-06	3.49E-08	2.84E-04	5.97E-04	8.64E-04
CD-115M			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM-123			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM-126			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SB-124			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SB-125			4.06E-05	3.02E-06	9.33E-05	7.87E-05	2.16E-04
TE-127M			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TE-129M			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CS-134			2.05E-04	3.02E-04	3.63E-03	1.25E-03	5.39E-03
CS-136			3.84E-08	1.97E-05	2.37E-04	9.78E-06	2.67E-04
CS-137			8.66E-04	1.12E-03	2.69E-03	1.48E-03	6.15E-03
BA-140			9.43E-05	6.31E-06	2.83E-04	1.41E-04	5.24E-04
CE-141			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CE-144			1.49E-04	1.82E-05	3.39E-04	2.56E-04	7.62E-04
HALOGENS							
I-131			3.30E-02	3.20E-02	1.58E-01	2.61E-02	2.50E-01
I-133			2.67E-03	6.13E-03	1.63E-02	2.69E-03	2.78E-02
I-135			2.64E-03	2.56E-03	1.26E-02	2.09E-03	1.99E-02
GASES							
KR-83M			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
KR-85M			7.39E-01	2.48E+00	9.24E-01	1.71E+00	5.85E+00
KR-85			4.45E+01	4.02E+01	1.76E+02	4.15E+01	3.02E+02
KR-87			2.57E-02	1.78E-01	2.27E-01	1.01E+01	1.06E+01
KR-88			5.22E-01	1.29E+00	2.48E-01	5.26E-01	2.58E+00
KR-89			0.00E+00	0.00E+00	0.00E+00	4.84E+01	4.84E+01
KR-90			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-131M			3.97E+01	1.62E+01	9.83E+01	3.06E+01	1.85E+02
XE-133M			2.38E+01	2.93E+01	2.20E+01	4.28E+01	1.18E+02
XE-133			3.70E+03	2.47E+03	4.29E+03	4.91E+03	1.54E+04
XE-135M			9.37E-01	5.98E-01	0.00E+00	5.24E+00	6.77E+00
XE-135			3.16E+01	6.16E+01	3.03E+01	8.33E+01	2.97E+02
XE-137			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
XE-138			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AR-41			2.22E-01	5.13E+00	0.00E+00	6.09E+00	1.14E+01
PARTICULATES AND IODINES WITH T 1/2 > 8 DAYS			3.51E-02	3.37E-02	1.72E-01	3.60E-01	2.77E-01

DAN McSOMERY
H. Ball

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

February 26, 1982

TELEPHONE: AREA 704
373-4083

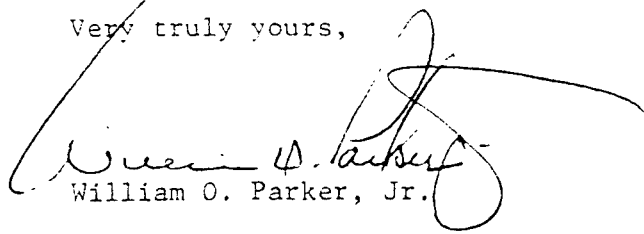
Mr. James P. O'Reilly, Regional Administrator (2)
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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

Dear Sir:

Pursuant to Oconee Nuclear Station Technical Specification 6.6.1.4 and 10 CFR 50, §50.36a(a)(2) please find attached the semiannual effluent release report. The report summarizes releases for the period of July 1, 1981 to December 31, 1981.

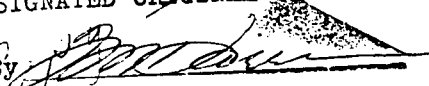
Very truly yours,


William O. Parker, Jr.

JFN/php
Attachment

cc: Director (6)
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

DESIGNATED ORIGINAL

Certified By 

IE25 11