

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8803110136 DOC.DATE: 87/12/31 NOTARIZED: NO DOCKET #
 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
 TUCKER,H.B. Duke Power Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: "Semiannual Radioactive Effluent Release Rept for Jul-Dec 1987." W/880301 ltr.

DISTRIBUTION CODE: IE48D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 39
 TITLE: 50.36a(a)(2) Semiannual Effluent Release Reports

NOTES:AEOD/Ornstein:1cy. 05000269
 AEOD/Ornstein:1cy. 05000270
 AEOD/Ornstein:1cy. 05000287

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
PD2-3 LA	1 0	PD2-3 PD	5 5
PASTIS,H	1 1		
INTERNAL: AEOD/DOA	1 1	AEOD/DSP/TPAB	1 1
ARM TECH ADV	1 1	NRR/DEST/PSB8D1	1 1
NRR/DREP/RPB10A	4 4	NRR/PMAS/ILRB12	1 1
REG FILE 01	1 1	RGN2 FILE 02	1 1
RGN2/DRSS/EPRPB	1 1		
EXTERNAL: BNL TICHLER,J03	1 1	LPDR	1 1
NRC PDR	1 1		
NOTES:	1 1		

A

880316

TOTAL NUMBER OF COPIES REQUIRED: LTTR 23 ENCL 22

R
I
D
S
/
A
D
D
S

R
I
D
S
/
A
D
D
S

DUKE POWER COMPANY

P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

March 1, 1988

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Semi-Annual Radioactive Effluent Release Report

Dear Sir:

Pursuant to Oconee Nuclear Station Technical Specification 6.6.1.4 and 10 CFR 50.36a (a)(2), please find attached the 1987 Semi-Annual Radioactive Effluent Release Report for July 1 - December 31, 1987.

Attachment 1 contains the Semi-Annual Radioactive Effluent Release and Solid Waste Disposal Reports. Attachment 2 provides details of unplanned (or abnormal) offsite releases. The meteorological data, concurrent with the release of gaseous effluents, is included as Attachment 3. Pursuant to Technical Specification 3.5.5, please find attached a description of all Radioactive Gas and Liquid Monitors that were inoperable for greater than 30 days (Attachment 4). Please note that no revisions to the Offsite Dose Calculation Manual were made during this reporting period.

Very truly yours,

H. B. Tucker
Hal B. Tucker *JWT*

WHM/1459/sbn

Attachments

xc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Ms. Helen Pastis
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. P. H. Skinner
NRC Resident Inspector
Oconee Nuclear Station

IE 48
1/1

Duke Power Company
Oconee Nuclear Station

Attachment 1

Radioactive Effluent Release and
Solid Waste Disposal Reports

8803110136 871231
PDR ADOCK 05000269
R DCD

IE48
11/1

OCONEE NUCLEAR STATION
EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION
REPORT DATE: 02/19/88
PERIOD COVERED: START DAY = 001 STOP DAY = 365

I. REGULATORY LIMITS - STATION

A. NOBLE GASES - AIR DOSE

1. CALENDAR QUARTER - GAMMA DOSE = 15 MRAD
2. CALENDAR QUARTER - BETA DOSE = 30 MRAD
3. CALENDAR YEAR - GAMMA DOSE = 30 MRAD
4. CALENDAR YEAR - BETA DOSE = 60 MRAD

B. LIQUID EFFLUENTS - DOSE

1. CALENDAR QUARTER - TOTAL BODY DOSE = 4.5 MREM
2. CALENDAR QUARTER - ORGAN DOSE = 15 MREM
3. CALENDAR YEAR - TOTAL BODY DOSE = 9 MREM
4. CALENDAR YEAR - ORGAN DOSE = 30 MREM

C. IODINE - 131 AND 133, TRITIUM, PARTICULATES W/T 1/2 > 8 DAYS - ORGAN DOSE

1. CALENDAR QUARTER = 22.5 MREM
2. CALENDAR YEAR = 45 MREM

II. MAXIMUM PERMISSIBLE CONCENTRATIONS

A. GASEOUS EFFLUENTS - INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL

B. LIQUID EFFLUENTS - INFORMATION FOUND IN 10CFR20, APPENDIX B, TABLE II, COLUMN 2

III. AVERAGE ENERGY - NOT APPLICABLE

IV. MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY
INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL

V. BATCH RELEASES

A. LIQUID EFFLUENT

1. $7.92E+02$ = TOTAL NUMBER OF BATCH RELEASES
2. $1.74E+05$ = TOTAL TIME(MIN.) FOR BATCH RELEASES.
3. $4.32E+04$ = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE.
4. $2.20E+02$ = AVERAGE TIME(MIN.) FOR A BATCH RELEASE.
5. $5.00E+00$ = MINIMUM TIME(MIN.) FOR A BATCH RELEASE.
6. $2.71E+06$ = AVERAGE DILUTION WATER FLOW DURING RELEASES(GPM).

B. GASEOUS EFFLUENT

1. $2.09E+02$ = TOTAL NUMBER OF BATCH RELEASES.
2. $1.23E+06$ = TOTAL TIME(MIN.) FOR BATCH RELEASES.
3. $4.46E+04$ = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE.
4. $5.87E+03$ = AVERAGE TIME(MIN.) FOR A BATCH RELEASE.
5. $1.50E+01$ = MINIMUM TIME(MIN.) FOR A BATCH RELEASE.

VI. ABNORMAL RELEASES

A. LIQUID

1. NUMBER OF RELEASES 2
2. TOTAL ACTIVITY RELEASED(CURIES) 6.85E-2 Ci

B. GASEOUS

1. NUMBER OF RELEASES 0
2. TOTAL ACTIVITY RELEASED(CURIES) 0

OCONEE FUEL CYCLE DOSE

1987

TOTAL BODY	0.75 mrem
------------	-----------

MAXIMUM ORGAN (TEEN-LIVER)	1.9 mrem
-------------------------------	----------

SUPPLEMENTAL REPORT PAGE 2
OCONEE NUCLEAR STATION

VALUES REPRESENTED BY "0.00E+00" WITHIN THE BODY OF THE SEMI-ANNUAL AND/OR ANNUAL REPORT ARE BELOW THE MINIMUM DETECTABLE LIMITS OF THE OCONEE COUNTING SYSTEMS. TYPICAL MOA'S FOR THE OCONEE COUNTING SYSTEM'S ARE LISTED BELOW:

ISOTOPE	ENERGY(Kev)	AVERAGE MOA
XE-133	80	1.32E-06
CE-144	133	1.42E-06
KR-88	196	1.82E-06
XE-135	249	5.04E-07
KR-87	402	9.99E-07
CS-137	661	3.17E-07
MO-99	778	1.22E-06
MN-54	834	2.18E-07
ZN-65	1115	4.27E-07
CO-60	1332	2.24E-07

OCONEE NUCLEAR STATION

The estimated percentage of error for both Liquid and Gaseous effluent release data at Oconee Nuclear Station has been determined to be $\pm 23\%$. This number was derived by summing the following individual estimates of errors:

- 1) Flow rate determining devices = $\pm 5\%$
- 2) Counting error = $\pm 15\%$
- 3) Sample preparation error = $\pm 3\%$

OCONEE NUCLEAR STATION
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/17/88

I. LIQUID RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	YEAR : 1987 TOTAL
1. GROSS RADIOACTIVITY						
A. TOTAL RELEASE	CURIES	6.51E-01	4.36E-01	6.25E-01	1.19E+00	2.90E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	6.47E-09	3.17E-09	3.67E-09	3.87E-09	4.06E-09
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	9.60E-08	7.32E-08	2.00E-07	3.82E-07	3.82E-07
2. TRITIUM						
A. TOTAL RELEASE	CURIES	2.35E+02	1.72E+02	2.67E+02	2.75E+02	9.49E+02
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.34E-06	1.25E-06	1.57E-06	8.94E-07	1.33E-06
3. DISSOLVED NOBLE GASES						
A. TOTAL RELEASE	CURIES	2.15E-01	1.33E+00	1.44E+00	1.99E+00	4.97E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.14E-09	9.68E-09	8.46E-09	6.46E-09	6.95E-09
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	1.47E+07	1.20E+07	1.69E+07	1.86E+07	6.22E+07
6. VOLUME OF DILUTION WATER	LITERS	1.01E+11	1.38E+11	1.70E+11	3.08E+11	7.16E+11
7. RADIONUCLIDES RELEASED	CURIES					
NA-24		3.13E-05	2.01E-05	2.93E-05	6.75E-06	8.75E-05
CR-51		1.66E-02	6.62E-03	6.39E-03	1.78E-03	3.14E-02
MN-54		1.68E-03	4.38E-03	7.69E-04	2.67E-03	9.51E-03
FE-55		1.77E-02	1.11E-02	1.04E-02	3.66E-03	4.29E-02
FE-59		6.50E-04	0.00E+00	1.36E-04	0.00E+00	7.87E-04
CO-57		3.23E-04	3.47E-04	4.92E-04	1.71E-03	2.87E-03
CO-58		2.33E-01	7.71E-02	3.73E-01	9.60E-01	1.64E+00
CO-60		5.25E-02	5.13E-02	1.14E-02	1.95E-02	1.35E-01
RB-88		0.00E+00	0.00E+00	1.13E-04	3.54E-04	4.68E-04
SR-89		0.00E+00	6.73E-05	0.00E+00	0.00E+00	6.73E-05
SR-92		3.10E-05	1.68E-04	6.36E-05	6.21E-06	2.69E-04
ZR-95		4.20E-04	1.12E-03	3.01E-04	0.00E+00	1.85E-03
NB-95		2.61E-03	2.40E-03	1.33E-03	1.81E-04	6.52E-03
NB-97		3.57E-04	0.00E+00	6.40E-04	2.26E-03	3.26E-03
TC-99M		9.11E-05	1.55E-04	0.00E+00	0.00E+00	2.46E-04
RU-103		0.00E+00	0.00E+00	2.42E-04	0.00E+00	2.42E-04
AG-110M		4.52E-02	6.28E-02	1.13E-01	4.65E-02	2.68E-01
I-131		3.47E-02	1.07E-02	1.41E-02	1.96E-02	7.92E-02
I-132		0.00E+00	4.96E-05	0.00E+00	0.00E+00	4.96E-05
I-133		4.41E-04	2.93E-05	7.64E-04	1.04E-03	2.28E-03
SB-122		1.24E-04	3.27E-04	1.50E-04	0.00E+00	6.01E-04
SB-124		8.53E-03	2.21E-03	6.12E-03	2.26E-03	1.91E-02
SB-125		2.08E-01	1.63E-01	5.99E-02	4.12E-02	4.72E-01
CS-134		8.17E-03	6.03E-03	7.08E-03	1.56E-02	3.69E-02
CS-136		0.00E+00	0.00E+00	2.65E-05	0.00E+00	2.65E-05
CS-137		1.89E-02	1.30E-02	1.58E-02	3.21E-02	7.98E-02
BA-139		0.00E+00	1.86E-02	0.00E+00	0.00E+00	1.86E-02
BA-140		0.00E+00	9.37E-04	0.00E+00	0.00E+00	9.37E-04
LA-140		1.59E-03	3.68E-03	1.47E-03	3.97E-02	4.64E-02
W-187		0.00E+00	0.00E+00	1.10E-04	0.00E+00	1.10E-04
KR-85		0.00E+00	0.00E+00	0.00E+00	4.69E-03	4.69E-03
KR-87		0.00E+00	0.00E+00	0.00E+00	2.26E-05	2.26E-05
XE-131M		0.00E+00	1.08E-02	6.55E-03	1.34E-02	3.08E-02
XE-133		2.05E-01	1.30E+00	1.42E+00	1.93E+00	4.86E+00
XE-133M		1.56E-03	1.14E-02	9.38E-03	1.78E-02	4.01E-02
XE-135		8.43E-03	4.47E-03	5.91E-03	1.73E-02	3.61E-02
XE-135M		0.00E+00	0.00E+00	0.00E+00	9.42E-05	9.42E-05

02/26/89

SKIN	MAXIMUM DOSE-	1.04D-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	53.85 %				
	AG 119M	7.38 %				
	SB 125	22.28 %				
	CS 137	9.22 %				
BONE	MAXIMUM DOSE-	2.88D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	23.19 %				
	CS 137	75.02 %				
LIVER	MAXIMUM DOSE-	3.94D-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	8.09 %				
	CS 134	32.44 %				
	CS 137	58.92 %				
T. BODY	MAXIMUM DOSE-	2.93D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	15.35 %				
	CS 134	35.08 %				
	CS 137	47.95 %				
THYROID	MAXIMUM DOSE-	4.31D-01 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
	H 3	13.52 %				
	I 131	82.39 %				
KIDNEY	MAXIMUM DOSE-	1.65D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	H 3	36.49 %				
	CS 134	28.63 %				
	CS 137	40.99 %				
LUNG	MAXIMUM DOSE-	9.96D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	49.30 %				
	CS 134	12.22 %				
	CS 137	24.48 %				
GI-LLI	MAXIMUM DOSE-	1.73D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	25.79 %				
	CO 58	8.68 %				
	CO 69	5.71 %				
	NB 95	47.14 %				

SKIN MAXIMUM DOSE- 6.93D-03 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE

CO 60 58.20 %
AG 110M 11.34 %
SB 125 19.31 %
CS 137 7.01 %

BONE MAXIMUM DOSE- 1.49D-01 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH

CS 134 24.41 %
CS 137 73.61 %

LIVER MAXIMUM DOSE- 2.08D-01 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH

H 3 8.31 %
CS 134 33.61 %
CS 137 54.95 %

T. BODY MAXIMUM DOSE- 1.55D-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 15.78 %
CS 134 38.35 %
CS 137 46.31 %

THYROID MAXIMUM DOSE- 1.16D-01 MREM CRITICAL AGE- INFANT CRITICAL PATHWAY- DRINKING

H 3 27.10 %
I 131 72.87 %

KIDNEY MAXIMUM DOSE- 8.70D-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH

H 3 37.40 %
CS 134 21.32 %
CS 137 39.47 %

LUNG MAXIMUM DOSE- 5.34D-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- DRINKING

H 3 60.87 %
CS 134 12.48 %
CS 137 23.22 %

GI-LLI MAXIMUM DOSE- 1.07D-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 22.79 %
CO 60 8.76 %
NR 95 52.51 %
AG 110M 5.08 %

02/25/89

SKIN MAXIMUM DOSE- 3.30D-03 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE

CO 58 11.48 %
CO 80 21.94 %
AG 110M 35.23 %
SB 125 11.90 %
CS 137 14.62 %

BONE MAXIMUM DOSE- 1.45D-01 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH

CS 134 24.06 %
CS 137 75.06 %

LIVER MAXIMUM DOSE- 2.07D-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 14.94 %
CS 134 31.91 %
CS 137 52.47 %

T. BODY MAXIMUM DOSE- 1.58D-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 19.54 %
CS 134 34.12 %
CS 137 44.96 %

THYROID MAXIMUM DOSE- 1.05D-01 MREM CRITICAL AGE- INFANT CRITICAL PATHWAY- DRINKING

H 3 37.96 %
I 131 61.25 %

KIDNEY MAXIMUM DOSE- 9.38D-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH

H 3 43.87 %
CS 134 18.95 %
CS 137 36.30 %

LUNG MAXIMUM DOSE- 6.06D-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- DRINKING

H 3 67.90 %
CS 134 10.55 %
CS 137 20.30 %

GI-LLI MAXIMUM DOSE- 8.50D-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- DRINKING

H 3 36.33 %
CO 58 15.83 %
NB 95 30.12 %
AG 110M 9.46 %

SKIN MAXIMUM DOSE- 2.48D-03 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE

CO 58 25.07 %
CO 60 28.35 %
AG 110M 10.71 %
SB 125 6.41 %
CS 134 7.09 %
CS 137 21.92 %

BONE MAXIMUM DOSE- 1.67D-01 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH

CS 134 25.74 %
CS 137 73.84 %

LIVER MAXIMUM DOSE- 2.25D-01 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH

H 3 5.58 %
CS 134 36.46 %
CS 137 56.71 %

T. BODY MAXIMUM DOSE- 1.67D-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 10.63 %
CS 134 39.61 %
CS 137 48.01 %

THYROID MAXIMUM DOSE- 1.09D-01 MREM CRITICAL AGE- INFANT CRITICAL PATHWAY- DRINKING

H 3 21.02 %
I 131 78.41 %

KIDNEY MAXIMUM DOSE- 8.62D-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH

H 3 20.64 %
CS 134 30.45 %
CS 137 48.33 %

LUNG MAXIMUM DOSE- 4.59D-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- DRINKING

H 3 51.67 %
CS 134 17.13 %
CS 137 30.31 %

GI-LLI MAXIMUM DOSE- 5.23D-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- DRINKING

H 3 34.00 %
CO 58 41.61 %
LA 140 5.40 %

02/26/88

SKIN	MAXIMUM DOSE-	1.86D-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 58	9.41 %				
	CO 30	44.01 %				
	AG 110M	13.91 %				
	SB 125	16.07 %				
	CS 137	12.37 %				
BONE	MAXIMUM DOSE-	7.01D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	24.57 %				
	CS 137	74.33 %				
LIVER	MAXIMUM DOSE-	9.64D-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	7.64 %				
	CS 134	34.25 %				
	CS 137	56.17 %				
T. BODY	MAXIMUM DOSE-	7.22D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	14.42 %				
	CS 134	36.86 %				
	CS 137	47.11 %				
THYROID	MAXIMUM DOSE-	6.22D-01 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
	H 3	21.62 %				
	I 131	78.00 %				
KIDNEY	MAXIMUM DOSE-	3.94D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	H 3	35.18 %				
	CS 134	22.25 %				
	CS 137	41.32 %				
LUNG	MAXIMUM DOSE-	2.34D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	59.37 %				
	CS 134	13.59 %				
	CS 137	25.20 %				
GI-LLI	MAXIMUM DOSE-	3.52D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	29.55 %				
	CO 58	17.40 %				
	NB 95	33.53 %				
	AG 110M	5.09 %				

OCONEE NUCLEAR STATION
 RADIOACTIVE EFFLUENT RELEASES
 DATE : 02/18/88

II. AIRBORNE RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	YEAR : 1987 TOTAL
1. TOTAL NOBLE GASES	CURIES	2.68E+03	3.30E+03	1.89E+03	2.63E+03	1.05E+04
2. TOTAL HALOGENS	CURIES	2.66E-03	5.41E-03	4.06E-03	1.39E-02	2.60E-02
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	3.25E-03	5.06E-03	3.38E-02	9.02E-02	1.32E-01
4. TOTAL TRITIUM	CURIES	1.53E+01	1.58E+01	2.48E+01	5.12E+01	1.07E+02
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. RADIONUCLIDES RELEASED

CURIES

PARTICULATES

CR-51	9.78E-05	1.92E-10	0.00E+00	0.00E+00	9.78E-05
MN-54	3.59E-05	4.34E-06	7.43E-06	7.20E-05	1.20E-04
FE-59	4.90E-06	0.00E+00	0.00E+00	0.00E+00	4.90E-06
CO-57	1.51E-06	8.51E-08	3.75E-07	0.00E+00	1.97E-06
CO-58	6.91E-04	9.84E-05	4.47E-05	6.90E-04	1.52E-03
CO-60	2.74E-04	1.10E-04	5.82E-05	4.68E-02	4.73E-02
RB-88	9.96E-04	4.74E-03	3.28E-02	3.34E-02	7.19E-02
SR-89	0.00E+00	0.00E+00	1.59E-07	0.00E+00	1.59E-07
SR-90	0.00E+00	0.00E+00	0.00E+00	1.35E-07	1.35E-07
SR-92	4.89E-06	3.90E-09	1.48E-05	5.60E-06	2.53E-05
ZR-95	1.06E-05	0.00E+00	0.00E+00	0.00E+00	1.06E-05
NB-95	3.98E-05	1.82E-07	1.47E-06	7.94E-07	4.23E-05
NB-97	1.15E-04	0.00E+00	2.02E-06	1.47E-05	1.31E-04
TC-99M	4.17E-06	0.00E+00	0.00E+00	0.00E+00	4.17E-06
RU-103	1.26E-06	0.00E+00	0.00E+00	0.00E+00	1.26E-06
AG-108M	0.00E+00	0.00E+00	1.04E-06	0.00E+00	1.04E-06
AG-110M	1.59E-04	1.45E-05	5.04E-06	2.62E-04	4.41E-04
CD-115	4.80E-07	0.00E+00	0.00E+00	0.00E+00	4.80E-07
SB-122	1.85E-05	0.00E+00	0.00E+00	0.00E+00	1.85E-05
SB-125	0.00E+00	0.00E+00	5.17E-07	0.00E+00	5.17E-07
CS-134	1.88E-05	2.09E-09	9.23E-06	2.38E-03	2.41E-03
CS-137	6.50E-04	5.02E-05	1.61E-05	5.99E-03	6.70E-03
CS-138	2.79E-05	3.43E-05	8.66E-04	6.18E-04	1.55E-03
BA-139	1.00E-04	0.00E+00	0.00E+00	0.00E+00	1.00E-04
LA-140	1.03E-06	0.00E+00	1.20E-05	9.97E-07	1.40E-05
CE-143	4.87E-06	4.21E-06	0.00E+00	1.70E-07	9.25E-06

HALOGENS

I-131	2.00E-03	3.23E-03	2.64E-03	6.03E-03	1.39E-02
I-132	7.00E-07	1.67E-04	4.91E-05	3.27E-04	5.43E-04
I-133	6.58E-04	1.95E-03	1.16E-03	5.98E-03	9.75E-03
I-134	0.00E+00	5.80E-07	0.00E+00	8.26E-06	8.85E-06
I-135	0.00E+00	6.24E-05	2.06E-04	1.51E-03	1.78E-03

GASES

AR-41	0.00E+00	2.88E+00	0.00E+00	0.00E+00	2.88E+00
KR-85	4.16E+02	2.80E+02	3.35E+02	9.42E+02	1.97E+03
KR-85M	0.00E+00	1.27E+00	0.00E+00	0.00E+00	1.27E+00
KR-87	0.00E+00	1.48E-01	0.00E+00	0.00E+00	1.48E-01
KR-88	2.25E+01	7.13E-01	0.00E+00	0.00E+00	2.32E+01
XE-131M	3.53E+01	6.71E+00	3.41E+01	4.13E+01	1.17E+02
XE-133	2.21E+03	2.97E+03	1.51E+03	1.59E+03	8.28E+03
XE-133M	0.00E+00	2.31E+01	1.52E+00	4.51E+00	2.91E+01
XE-135	2.06E+00	1.15E+01	2.81E+00	5.27E+01	6.90E+01
XE-135M	0.00E+00	5.52E-02	0.00E+00	0.00E+00	5.52E-02
XE-138	0.00E+00	1.04E-02	0.00E+00	0.00E+00	1.04E-02

DOONEE GROUND AND ELEVATED COMBINED SUMMARY 001-070 87 02/26/88
SPECIAL LOCATION
AT 4.00 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $4.24\text{E-}02$ MILLIRADS
GAMMA AIR DOSE = $1.49\text{E-}02$ MILLIRADS

TOTAL BODY DOSE = $9.10\text{E-}03$ MILLIREM	TOTAL SKIN DOSE = $2.87\text{E-}02$ MILLIREM
KR 85 9.67%	25.54%
XE 133 65.53%	58.72%
KR 88 33.09%	14.46%

DOONEE GROUND AND ELEVATED COMBINED SUMMARY 001-090 87 02/26/88
SPECIAL LOCATION
AT 2.00 MILES W

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - COW MILK @ 97.33%

MAXIMUM ORGAN DOSE = 3.02E-02 MILLIREM
I 131 97.19%

MOORE GROUND AND ELEVATED COMBINED SUMMARY 09J-181 87 02/26/88
SPECIAL LOCATION
AT 4.00 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $4.93E-02$ MILLIRADS
GAMMA AIR DOSE = $1.47E-02$ MILLIRADS

TOTAL BODY DOSE = $8.68E-03$ MILLIREM TOTAL SKIN DOSE = $2.92E-02$ MILLIREM
KC 85 0.47% 17.12%
XE133 92.56% 77.66%

ODDSEE GROUND AND ELEVATED COMBINED SUMMARY 091-181 87 02/24/88
SPECIAL LOCATION
AT 4.50 MILES WNW

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - COW MILK @ 99.69%

MAXIMUM ORGAN DOSE = $4.51E-02$ MILLIREM
I 131 99.20%

MOONEE GROUND AND ELEVATED COMBINED SUMMARY 182-273 87 02/24/88
SPECIAL LOCATION
AT 1.50 MILES S

NOBLE GAS EXPOSURE

BETA AIR DOSE = $3.48E-02$ MILLIRADS
GAMMA AIR DOSE = $9.57E-03$ MILLIRADS

TOTAL BODY DOSE = $5.59E-03$ MILLIREM
KR 85 0.48%
XE133 98.72%

TOTAL SKIN DOSE = $2.04E-02$ MILLIREM
KR 85 22.80%
XE133 77.16%

OCONEE GROUND AND ELEVATED COMBINED SUMMARY 182-273 87 02/26/88
SPECIAL LOCATION
AT 4.50 MILES UNW

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - COW MILK @ 99.99%
MAXIMUM ORGAN DOSE = $3.87E-02$ MILLIREM
I 131 99.99%

OCCONEE GROUND AND ELEVATED COMBINED SUMMARY 274-365 97 02/26/88
SPECIAL LOCATION
AT 4.00 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $4.85E-02$ MILLIRADS
GAMMA AIR DOSE = $8.98E-03$ MILLIRADS

TOTAL BODY DOSE = $5.34E-03$ MILLIREM

KR 85 2.41%
XE133 80.24%
XE135 16.29%

TOTAL SKIN DOSE = $3.16E-02$ MILLIREM

KR 85 53.34%
XE133 39.11%
XE135 7.28%

GOOSE GROUND AND ELEVATED COMBINED SUMMARY - 274-365 07 02/26/88
SPECIAL LOCATION
AT 1.50 MILES SE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - LIVER
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 69.74%

MAXIMUM ORGAN DOSE = 8.81E-01 MILLIREM
CS134 26.48%
CS137 69.78%

SCENE GROUND AND ELEVATED COMBINED SUMMARY 001-365 87 02/26/88
SPECIAL LOCATION
AT 4.00 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $1.70E-01$ MILLIRADS
GAMMA AIR DOSE = $4.59E-02$ MILLIRADS

TOTAL BODY DOSE = $2.74E-02$ MILLIREM

KR 85 1.06%
KR 88 11.31%
XE133 81.91%

TOTAL SKIN DOSE = $1.08E-01$ MILLIREM

32.68%
3.98%
58.89%

OCONEE GROUND AND ELEVATED COMBINED SUMMARY 001-365 87 02/26/88
SPECIAL LOCATION
AT 1.50 MILES SE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - LIVER
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 68.22%

MAXIMUM ORGAN DOSE = $9.18\text{E-}01$ MILLIREM

CO 60 5.69%
CS134 25.42%
CS137 67.47%

OCONEE NUCLEAR STATION
SOLID RADIOACTIVE WASTE SHIPPED TO A DISPOSAL FACILITY
REPORT PERIOD 7/1/87 THROUGH 12/31/87

	TYPES OF WASTE SHIPPED	NUMBER OF SHIPMENTS	NUMBER OF CONTAINERS	WASTE CLASS	CONT. TYPE	BURIAL VOLUME		TOTAL ACT. Ci	EST. TOTAL ERROR %
						(ft ³)	(m ³)		
1	WASTE FROM LIQUID SYSTEMS								
	(A) Dewatered Powdex Resins	5	15	15A-U	STC	3091.5	87.54	0.213	10
	(B) Dewatered Bead Resins	1	1	1C	B	120.3	3.41	210.0	10
	(C) Evaporator Concentrates	0	0	N/A	N/A	0	0	0	N/A
	(D) Dewatered Mechanical Filters	0 *	2	2A-U	STC	184	5.21	0.058	15
	(E) Dewatered Demineralizers	6	18	1A-S, 17B	STC	689.4	19.52	118.0	10
	(F) Solidified (Cement) Oils Acids, Sludges	0	0	N/A	STC	0	0	0	N/A
2	DRY SOLID WASTE								
	(A) Dry Active Waste (compacted)	11	122	122A-U	STC	11224	317.83	7.94	15
	(B) Dry Active Waste (non-compacted)	3	30	30A-U	STC	2874	81.38	19.6	15
	(C) Irradiated Components	0	0	N/A	STC	0	0	0	N/A
TOTALS		26	188	1A-S 169A-U 17B, 1C	---	18183.2	514.9	355.82	---

* These were shipped with a DAW shipment.

DUKE POWER COMPANY
OCONEE NUCLEAR STATION
SUMMARY OF MAJOR RADIONUCLIDE COMPOSITION

TYPE OF WASTE -----	RADIONUCLIDE -----	% ABUNDANCE -----
1. WASTE FROM LIQUID SYSTEM		
(A) DEWATERED POWDEX RESINS:	CO-58	.4
	CO-60	2.2
	NI-63	3.1
	SR-90	2.7
	CS-134	12.6
	CS-137	73.7
	FE-55	1.2
	I-131	3.7
	MN-54	.1
	AG-110M	.1
	XE-133	.2
(B) DEWATERED BEAD RESINS:	CO-57	.1
	CO-58	5.8
	CO-60	11.6
	NI-63	16.4
	SR-90	6.1
	CS-134	12.4
	CS-137	22.4
	FE-55	20.4
	MN-54	3.8
	AG-110M	.8
	PU-241	.2
(C) EVAPORATOR CONCENTRATES:	NONE FOR THIS PERIOD	
(D) DEWATERED MECHANICAL FILTERS:	CO-58	2.0
	CO-60	22.3
	NI-63	31.5
	SR-90	.7
	CS-134	8.8
	CS-137	18.7
	FE-55	12.7
	MN-54	3.1
(E) DEWATERED DEMINERALIZERS:	CO-57	.1
	CO-58	26.0
	CO-60	4.2
	NI-63	10.3
	CS-134	17.3
	CS-137	28.0
	FE-55	6.1
	I-131	.8
	MN-54	.8
	AG-110m	3.4
	SB-125	.4
	NB-95	.4
	CR-51	2.0
	ZR-95	.1

DUKE POWER COMPANY
 OCONEE NUCLEAR STATION
 SUMMARY OF MAJOR RADIONUCLIDES COMPOSITION (CONTINUED)

(F) SOLIDIFIED ACIDS, OILS, SLUDGES: NONE FOR THIS PERIOD

2. DRY SOLID WASTE	RADIONUCLIDE -----	% ABUNDANCE -----
(A) DRY ACTIVE WASTE (COMPACTED)	CO-58	29.6
	CO-60	11.7
	NI-63	7.9
	CS-134	3.6
	CS-137	12.3
	FE-55	20.8
	MN-54	1.9
	AG-110M	5.0
	C-14	.7
	NB-95	1.4
	CR-51	4.7
	PU-241	.4
(B) DRY ACTIVE WASTE (NON-COMPACTED)	CO-58	29.6
	CO-60	11.7
	NI-63	7.9
	CS-134	3.6
	CS-137	12.3
	FE-55	20.8
	MN-54	1.9
	AG-110M	5.0
	C-14	.7
	NB-95	1.4
	PU-241	.4
	CR-51	4.7
(C) IRRADIATED COMPONENTS	NONE FOR THIS PERIOD	

Duke Power Company
Oconee Nuclear Station

Attachment 2

Summary of Unplanned Radioactive
Releases to Unrestricted Areas

Date: October 1, 1987

Description and
Equipment:

Unit 1 was shut down for a scheduled maintenance and refueling outage. The steam generators were being chemically cleaned during the outage. A section of pipe used to transfer solutions to the steam generators from tanks located outside of the reactor building was located in the environment.

Cause:

A pressure-relief valve in the line used to transfer solution to the steam generator was left open. The valve was in the environment, allowing direct access for radioactive water to reach the site yard-drain system.

Corrective Action
To Prevent

Recurrence:

Immediate corrective action was to close the valve. Procedures were revised to ensure that the valve would not be opened while transferring solutions in the future.

Consequences:

Approximately 500 gallons of water containing $7.59\text{E-}5$ Ci of radioactivity were released. The gamma whole body dose to the public was estimated to have been $8.34\text{E-}5$ mrem.

Date: October 7, 1987

Description and
Equipment:

Unit 1 was shutdown for a scheduled maintenance and refueling outage. A stainless steel pipe in the Auxiliary Building Penetration Room which contained reactor coolant water required repair. The coolant water in the pipe on either side of the portion of pipe requiring repair was frozen, thereby eliminating the need to drain the line to make repairs. A previously unknown path to the environment from the Auxiliary Building existed via a pipe-trench drain line which was connected to the yard-drain system.

Cause:

The cause for this release was the failure of work crews to maintain the "freeze plug" on the line during repairs and the previously undiscovered release path to the environment.

Corrective Action
To Prevent

Recurrence:

Immediate corrective action was to stop the leak by sealing the pipe. The pathway which the coolant water took to reach the environment was discovered and was sealed. Procedures used to freeze pipe contents will be revised to reduce the chances of recurrence.

Consequences:

Approximately 1890 gallons of water containing $6.84\text{E-}2$ Ci of radioactivity were released. The gamma whole body dose to the public was estimated to have been 1.75 mrem.

Duke Power Company
Oconee Nuclear Station

Attachment 3

Meteorological Data

PASQUILL STABILITY A

SECTOR	WIND SPEED CLASS										TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	8.50- 9.49	>9.50 M/S	
	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	
-N-	7	42	20	18	8	1	.	.	.	.	96
-NNE-	2	29	11	5	2	7	4	1	.	.	61
-NE-	4	17	11	10	5	2	.	.	.	.	49
-ENE-	.	10	21	21	30	14	5	4	2	.	107
-E-	2	13	14	12	12	2	2	1	.	.	58
-ESE-	1	11	13	5	.	.	.	.	.	.	30
-SE-	2	17	13	6	3	.	1	.	.	.	42
-SSE-	1	22	31	13	5	1	.	.	.	.	73
-S-	8	27	42	51	16	1	.	2	.	.	147
-SSW-	11	89	98	77	20	9	4	.	1	.	309
-SW-	13	73	65	36	17	12	2	3	1	.	222
-WSW-	23	78	22	11	6	3	.	1	1	.	145
-W-	17	52	18	6	1	.	2	1	2	2	101
-WNW-	14	19	2	3	5	3	3	4	8	11	72
-NW-	9	15	4	1	2	4	3	1	6	2	47
-NNW-	7	28	7	5	4	2	.	3	.	.	56
TOTAL	121	542	392	280	136	61	26	21	21	15	1615

PASQUILL STABILITY C

SECTOR	WIND SPEED CLASS										TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	8.50- 9.49	>9.50 M/S	
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	
-N-	8	18	6	4	1	2	1	.	.	.	40
-NNE-	5	20	8	3	1	1	2	.	1	.	41
-NE-	.	12	5	3	3	1	.	.	.	.	24
-ENE-	1	5	10	15	6	5	5	.	.	.	47
-E-	2	5	4	4	7	6	1	1	.	.	30
-ESE-	2	2	.	2	.	.	.	.	.	.	6
-SE-	2	3	2	.	.	.	.	1	.	.	8
-SSE-	6	10	1	3	3	.	.	.	.	.	23
-S-	7	20	6	3	1	.	.	.	.	.	37
-SSW-	9	19	13	7	.	.	.	.	.	.	48
-SW-	13	25	18	11	7	1	3	1	.	.	79
-WSW-	14	20	3	5	3	2	6	2	2	2	59
-W-	8	11	3	1	2	.	1	2	1	3	32
-WNW-	7	11	1	3	.	2	3	8	3	2	40
-NW-	11	8	1	2	1	2	1	4	.	.	30
-NNW-	13	15	4	2	1	.	2	1	2	2	42
-CALM-	1	.	.	.	.	.	.	.	.	.	1
TOTAL	109	204	85	68	36	22	25	20	9	9	587

PASQUILL STABILITY D

SECTOR	WIND SPEED CLASS										TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	8.50- 9.49	>9.50 M/S	
	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	NØ.	
-N-	26	43	27	12	14	1	3	.	.	.	126
-NNE-	12	37	30	16	9	4	4	3	1	.	116
-NE-	6	17	33	44	27	11	10	2	.	.	150
-ENE-	1	29	44	74	62	34	24	7	10	5	290
-E-	3	10	15	21	19	8	2	1	.	.	79
-ESE-	5	14	10	10	4	1	2	.	.	.	46
-SE-	12	22	5	2	.	.	.	.	.	.	41
-SSE-	16	28	20	11	1	.	.	.	.	.	76
-S-	24	17	33	11	3	2	1	.	.	1	92
-SSW-	17	23	27	14	17	5	2	.	.	.	105
-SW-	27	29	23	17	9	5	4	3	.	.	117
-WSW-	19	22	19	13	12	10	2	2	1	.	100
-W-	26	7	5	4	4	8	7	2	2	.	65
-WNW-	12	9	5	2	5	3	5	6	6	4	57
-NW-	19	7	7	8	4	10	8	6	4	8	81
-NNW-	19	23	16	10	2	4	2	6	.	1	83
-CALM-	5	.	.	.	.	.	.	.	.	.	5
TOTAL	249	337	319	269	192	106	76	38	24	19	1629

PASQUILL STABILITY E

SECTOR	WIND SPEED CLASS										TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	8.50- 9.49	>9.50 M/S	
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	
-N-	53	141	111	41	13	3	3	.	.	.	365
-NNE-	34	73	63	19	9	10	1	1	.	.	210
-NE-	17	51	56	57	37	12	1	.	1	.	232
-ENE-	6	40	61	78	39	13	1	2	.	.	240
-E-	6	31	34	18	6	.	.	.	.	.	95
-ESE-	16	25	13	3	.	1	.	.	.	.	58
-SE-	20	23	14	4	2	.	4	.	1	.	68
-SSE-	20	38	37	16	3	3	.	.	.	.	117
-S-	24	28	33	12	4	.	1	.	.	.	102
-SSW-	30	37	26	17	8	2	2	.	.	.	122
-SW-	23	31	83	47	27	14	.	.	.	.	225
-WSW-	29	71	57	51	22	16	3	.	.	.	249
-W-	28	32	19	17	27	14	6	5	2	1	151
-WNN-	37	47	20	22	30	16	6	5	3	3	189
-NW-	51	51	30	21	14	5	5	.	.	1	178
-NNW-	35	102	66	20	12	2	5	.	.	.	242
-CALM-	6	.	.	.	.	.	.	.	.	.	6
TOTAL	435	821	723	443	253	111	38	13	7	5	2849

16:32 WEDNESDAY, FEBRUARY 10, 1988

PASQUILL STABILITY F

SECTOR	WIND SPEED CLASS						TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	
	NO.	NO.	NO.	NO.	NO.	NO.	
-N-	78	147	113	14	3	.	355
-NNE-	26	76	34	5	.	1	142
-NE-	19	17	15	9	.	.	60
-ENE-	14	16	4	6	2	.	42
-E-	9	16	5	3	.	.	33
-ESE-	11	12	4	1	.	.	28
-SE-	3	13	4	.	.	.	20
-SSE-	12	8	6	7	.	.	33
-S-	10	8	12	10	.	.	40
-SSW-	16	13	5	6	1	.	41
-SW-	21	27	13	2	.	1	64
-WSW-	21	22	12	2	1	.	58
-W-	14	22	2	3	2	2	45
-WNW-	40	47	9	2	1	.	99
-NW-	45	52	9	5	.	.	111
-NNW-	65	95	36	4	1	.	201
-CALM-	8	.	.	.	.	.	8
TOTAL	412	591	283	79	11	4	1380

PASQUILL STABILITY G

SECTOR	WIND SPEED CLASS								TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	
-N-	34	58	36	7	1	.	.	.	136
-NNE-	21	16	10	3	1	.	.	.	51
-NE-	8	10	2	.	.	.	2	.	22
-ENE-	5	7	.	1	6	4	7	2	32
-E-	5	3	1	2	1	.	.	.	12
-ESE-	4	1	2	.	.	.	.	.	7
-SE-	6	9	1	.	.	.	.	.	16
-SSE-	5	3	1	.	.	.	.	.	9
-S-	3	3	4	1	.	.	.	.	11
-SSW-	12	6	25	10	2	2	.	.	57
-SW-	8	10	17	7	2	.	.	.	44
-WSW-	13	14	12	5	.	.	.	.	44
-W-	9	11	6	2	2	.	.	.	30
-WNW-	18	17	3	1	.	.	.	.	39
-NW-	17	17	5	1	.	.	1	.	41
-NNW-	18	35	12	3	1	.	.	.	69
-CALM-	1	.	.	.	.	.	.	.	1
TOTAL	187	220	137	43	16	6	10	2	621

1987 METEOROLOGY JOINT FREQUENCIES: O'CONNOR NUCLEAR STATION

16:32 WEDNESDAY, FEBRUARY 10, 1988

7

ALL STABILITY CLASSES

SECTOR	WIND SPEED CLASS										TOTAL
	0.45- 1.49	1.50- 2.49	2.50- 3.49	3.50- 4.49	4.50- 5.49	5.50- 6.49	6.50- 7.49	7.50- 8.49	8.50- 9.49	>9.50 M/S	
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	
-N-	206	449	313	96	40	7	7	.	.	.	1118
-NNE-	100	251	156	51	22	23	11	5	2	.	621
-NE-	54	124	122	123	72	26	13	2	1	.	537
-ENE-	27	107	140	195	145	70	42	15	12	5	758
-E-	27	78	73	60	45	16	5	3	.	.	307
-ESE-	39	65	42	21	4	2	2	.	.	.	175
-SE-	45	87	39	12	5	.	5	1	1	.	195
-SSE-	60	109	96	50	12	4	.	.	.	.	331
-S-	76	103	130	88	24	3	2	2	.	1	429
-SSW-	95	187	194	131	48	18	8	.	1	.	682
-SW-	105	195	219	120	62	33	9	7	1	.	751
-WSW-	119	227	125	87	44	31	11	5	4	2	655
-W-	102	135	53	33	38	24	16	10	7	6	424
-WNW-	128	150	40	33	41	24	17	23	20	20	496
-NW-	152	150	56	38	21	21	18	11	10	11	488
-NNW-	157	298	141	44	21	8	9	10	2	3	693
-CALM-	21	.	.	.	.	.	.	.	.	.	21
TOTAL	1513	2715	1939	1182	644	310	175	94	61	48	8681

Duke Power Company
Oconee Nuclear Station

Attachment 4

Radioactive Gas and Liquid Monitors
Inoperable for Greater Than 30 Days

Radioactive Gas and Liquid Monitors
Inoperable Greater than 30 Days

1, 2, 3 RIA-35

RIA-35 for each unit has been inoperable during the entire reporting period, July 1, 1987 to December 31, 1987. These RIAs which monitor Low Pressure Service Water (LPSW) have been out of service for an extended period due to system design inadequacies. As presently configured, these monitors do not receive a sufficiently representative composite sample for all portions of the LPSW system. These monitors will be returned to service following implementation of a Nuclear Station Modification which will identify and resolve LPSW design difficulties.

Hot Machine Shop Ventilation Particulate and Iodine Samplers

The Particulate and Iodine Samplers for the Hot Machine Shop Ventilation System were out of service for the entire reporting period, July 1, 1987 to December 31, 1987. These Samplers have never operated reliably since initial attempts to place them in service, apparently due to design problems. Resolution is being pursued with site and corporate design engineers to determine the problems and provide corrective actions.

Radwaste Facility Ventilation Monitoring System

The Radwaste Facility Noble Gas Activity Monitor (4 RIA-45), the Iodine Sampler, the Particulate Sampler, the Effluent Flow Rate Monitor, and the Sampler Flow Rate Monitor were all out of service for the entire reporting period, July 1, 1987 to December 31, 1987. These instruments are all integrated into one system which has not operated satisfactorily since initial employment of the Radwaste Facility for radwaste processing. The apparent design problems in this system will be resolved by a Nuclear Station Modification and the system will be put into service.