

50-268(270)287

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER

TO:  
Mr. A. Schwencer

FROM:  
Duke Power Company  
Charlotte, North Carolina  
William O. Parker

DATE OF DOCUMENT  
6/14/77

DATE RECEIVED  
6/20/77

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DESCRIPTION

ENCLOSURE

RE LTR 4-18-77

**DO NOT REMOVE**

Consists of information related to equilibrium & transient iodine activity for the period March, 1976 to March, 1977..

**ACKNOWLEDGED (1-P)**

(17-P)

PLANT NAME: Oconee Units 1-2-3

RJL 6/20/77

SAFETY

FOR ACTION/INFORMATION

ENVIRONMENTAL

ASSIGNED AD:		ASSIGNED AD:	V. MOORE (LTR)
BRANCH CHIEF:	Schwenger (sl)	BRANCH CHIEF:	
PROJECT MANAGER:	Neighbors	PROJECT MANAGER:	
LICENSING ASSISTANT:	Sheppard	LICENSING ASSISTANT:	
			B. HARLESS

INTERNAL DISTRIBUTION

REG FILES	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY & ENVIRON ANALYSIS
NRC PDR	HEINEMAN	TEDESCO	DENTON & MULLER
T & E (2)	SCHROEDER	BENAROYA	CRUTCHFIELD
OELD		LAINAS	
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
HANAUER	KNIGHT	F. ROSA	ENVIRO TECH.
MIPC	BOSNAK		ERNST
CASE	SIHWELL	OPERATING REACTORS	BALLARD
BOYD	PAWLICKI	STELLO	YOUNGBLOOD
		EISENHUT	
PROJECT MANAGEMENT	REACTOR SAFETY	SHAO	SITE TECH.
SKOVHOLT	ROSS	BAER	
P. COLLINS	NOVAK	BUTLER	GAMMILL (2)
HOUSTON	ROSZTGCZY	GRIMES	
MELTZ	CHECK		SITE ANALYSIS
HELTEMES			VOLLMER
SK	AT&I		BUNCH
	SALTZMAN		J. COLLINS
	RUTBERG		KREGER

EXTERNAL DISTRIBUTION

CONTROL NUMBER

LPDR: <i>Waltham SC</i>			
TIC	NSIC		
NAT LAB			
REG IV (J. HANCHETT)			
16 CYS ACRS SENT CATEGORY <i>B</i>			

771710068

*RHP*

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

June 14, 1977

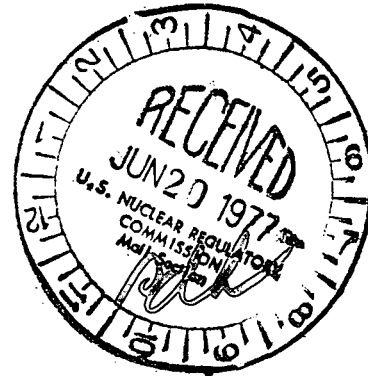
WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

TELEPHONE: AREA 704  
373-4083

REGULATORY DOCKET FILE COPY

Mr. A. Schwencer, Chief  
Operating Reactor Branch #1  
Division of Operating Reactors  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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



Dear Mr. Schwencer:

As requested by your letter of April 18, 1977, please find attached information related to equilibrium and transient iodine activity at Oconee Nuclear Station for the period March, 1976 to March, 1977.

Very truly yours,

*W. O. Parker, Jr.*

William O. Parker, Jr. *By Mrs*

WOP/jm

cc: Mr. R. T. Bond  
Mr. J. E. Smith  
Mr. R. F. Wardell  
Mr. R. B. Thompson  
Mr. W. A. Haller  
Mr. C. T. Yongue  
Master File: OS 801.03  
Section File: OS 801.03

Mr. H. B. Tucker  
Mr. K. S. Canady  
Mr. D. C. Holt  
Mr. M. S. Tuckman  
Mr. Lionel Lewis

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OCONEE NUCLEAR STATION

EQUILIBRIUM AND TRANSIENT IODINE ACTIVITY

EXPLANATORY NOTES

- 1.0 Date - Date transient occurred.
- 2.0 Percent Power - Net power changes in excess of 25%. Length of time over which power change occurred is not qualified due to the relative inaccessibility of this data.
- 3.0 Isotope - Isotopes as requested.
- 4.0 Concentration - Expressed as microcuries per milliliter.
  - 4.1 First and second columns are measurements taken prior to transient.
  - 4.2 Third column is measurement of transient peak.
  - 4.3 Fourth column is measurement of post-transient equilibrium.
- 5.0 Measurements were not reported if they were less than  $10^{-3}$  microcuries per milliliter or were not taken based on previously indicated activity levels.
- 6.0 Units that operated at constant power level for entire month experienced no transients.
- 7.0 Units that were out of service for the entire month experienced no transients.

OCONEE NUCLEAR STATION

UNIT NO. 1

1. 100% Reactor Thermal Power = 2568 MWE
2. RC System Cleanup Flowrate = 70 GPM
3. RC System Temperature = 532°F
4. RC System Pressure = 2155 PSI

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
3-23-77	100 down	I-131	$5.5 \times 10^{-1}$	0.30	0.42	0.30
		I-133	0.18	0.55	0.35	0.12
		Xe-133	1.40	1.35	1.75	0.10
		Xe-135	0.37	0.82	0.57	0.13
3-13-77	100 up	I-131	$6.4 \times 10^{-1}$	0.28	0.12	$4.4 \times 10^{-1}$
		I-133		$<10^{-3}$		
		Xe-133	0.62	0.90	1.20	0.62
		Xe-135	0.60	0.70	0.75	0.37
2-28-77	100 down	I-131	0.10	1.90	0.95	0.65
		I-133	0.25	1.50	0.38	0.14
		Xe-133	2.70	2.20	3.70	3.0
		Xe-135	0.80	0.90	0.70	0.40
2- 8-77	100 up	I-131	0.17	0.32	0.35	0.19
		I-133	$3 \times 10^{-2}$	$3.6 \times 10^{-1}$	$8.5 \times 10^{-1}$	$5 \times 10^{-1}$
		Xe-133	0.36	0.50	0.80	0.14
		Xe-135	0.62	0.78	0.90	0.14
2- 1-77	100 down	I-131	$4.3 \times 10^{-1}$	0.25	0.37	0.27
		I-133	0.17	0.55	0.34	0.12
		Xe-133	1.20	1.70	1.30	0.90
		Xe-135	0.90	0.85	0.75	0.65

OCONEE NUCLEAR STATION

UNIT NO. 1

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{MI}$			
1-26-77	100 Up	I-131	0.11	$5.8 \times 10^{-1}$	$4.7 \times 10^{-1}$	$3.4 \times 10^{-1}$
		I-133	$7.8 \times 10^{-1}$	0.10	0.13	0.14
		Xe-133	0.33	0.64	1.20	0.70
		Xe-135	0.59	0.90	0.88	0.75
1-16-77	100 down	I-131	$9.0 \times 10^{-1}$	0.98	1.09	0.95
		I-133	0.16	0.65	0.60	0.48
		Xe-133	3.20	3.20	3.50	2.40
		Xe-135	0.90	0.92	0.40	0.30
12-23-76	30 Up	I-131	$1.3 \times 10^{-1}$	$1.6 \times 10^{-1}$	$1.8 \times 10^{-1}$	$2.3 \times 10^{-1}$
		I-133	0.11	0.13	0.12	
		Xe-133	0.40	0.66	0.95	0.87
		Xe-135	0.82	0.81	0.88	0.62
12-22-76	70 Up	I-131	$3.2 \times 10^{-2}$	$2.3 \times 10^{-1}$	$1.6 \times 10^{-1}$	$9.0 \times 10^{-2}$
		I-133	$8.7 \times 10^{-1}$	0.12	0.22	0.11
		Xe-133	$1 \times 10^{-2}$	$0.95 \times 10^{-2}$	$2 \times 10^{-1}$	$1.5 \times 10^{-1}$
		Xe-135	$6 \times 10^{-1}$	$6 \times 10^{-1}$	0.82	
12- 8-76	100 down	I-131	$3 \times 10^{-1}$	$7 \times 10^{-1}$	$4 \times 10^{-1}$	$2 \times 10^{-1}$
		I-133	$4 \times 10^{-1}$	$8 \times 10^{-1}$	0.10	$3 \times 10^{-1}$
		Xe-133	$3.8 \times 10^{-2}$	0.02	$0.9 \times 10^{-1}$	
		Xe-135	$4 \times 10^{-2}$	$3 \times 10^{-1}$	0.15	$3 \times 10^{-1}$
12- 7-76	100 down	I-131	$7 \times 10^{-1}$	$2 \times 10^{-1}$	$1 \times 10^{-1}$	
		I-133		$<10^{-3}$		
		Xe-133	$7 \times 10^{-1}$	0.13	$4 \times 10^{-1}$	$3 \times 10^{-1}$
		Xe-135		$<10^{-3}$		

OCONEE NUCLEAR STATION

UNIT NO. 1

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
11-18-76	100 down	I-131	$4 \times 10^{-1}$	0.26	$8 \times 10^{-1}$	
		I-133	0.15	0.46	$7 \times 10^{-1}$	
		Xe-133	0.24	0.60	0.58	0.38
		Xe-135	0.65	0.80	0.23	$3 \times 10^{-1}$
11-16-76	50 up	I-131	0.11			
		I-133		$<10^{-3}$		
		Xe-133		$<2 \times 10^{-1}$		
		Xe-135		$<10^{-3}$		
11-15-76	40 up	I-131	$5 \times 10^{-1}$			
		I-133		$<10^{-3}$		
		Xe-133		$<2 \times 10^{-1}$		
		Xe-135		$<10^{-1}$		
10-31-76	100 down	I-131	0.19	0.46	0.49	0.38
		I-133	0.13	0.13	0.13	$8 \times 10^{-1}$
		Xe-133	1.0	1.5	1.6	$1.5 \times 10^{-1}$
		Xe-135	0.40	0.40	0.25	$7 \times 10^{-1}$
10-26-76	100 down	I-131	$8 \times 10^{-1}$	2.6	0.92	0.25
		I-133	0.11	2.0	0.55	0.14
		Xe-133	2.80	4.80	4.30	1.20
		Xe-135	0.85	0.97	1.00	0.85
10- 8-76	50 down	I-131	0.12	0.58	0.18	0.10
		I-133	0.14	0.22	0.24	0.13
		Xe-133	2.40	3.10	3.10	2.80
		Xe-135	0.78	0.80	0.90	0.61

OCONEE NUCLEAR STATION

UNIT NO. 1

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{ML}$			
9- 5-76	55 Up	I-131	$8.5 \times 10^{-1}$	0.12	0.10	$7 \times 10^{-1}$
		I-133	0.16	0.25	0.18	$7 \times 10^{-1}$
		Xe-133	1.80	2.30	1.80	
		Xe-135	0.80	0.88	0.68	
9- 4-76	100 down	I-131	$6 \times 10^{-1}$	0.70	0.34	0.14
		I-133	0.12	0.96	0.23	0.13
		Xe-133	1.70	2.30	1.40	
		Xe-135	0.40	0.52	0.24	
8-29-76	50 down	I-131	$9 \times 10^{-1}$	0.22	0.16	0.10
		I-133	0.12	0.35	0.18	0.15
		Xe-133	1.50	1.70	3.90	2.30
		Xe-135	0.58	0.54	1.20	0.54
8-14-76	75 down	I-131	$9 \times 10^{-1}$	0.55	0.38	0.11
		I-133	$9 \times 10^{-1}$	0.21	$9 \times 10^{-1}$	
		Xe-133	0.90	0.95	1.20	1.00
		Xe-135	0.30	0.46	0.60	0.45
7-13-76	100 down	I-131	$9 \times 10^{-1}$	0.38	0.12	$9 \times 10^{-1}$
		I-133	0.23	0.51	0.23	0.18
		Xe-133	1.60	2.10	1.80	1.20
		Xe-135	0.33	0.50	0.41	0.30
7- 7-76	100 down	I-131	0.10	0.65	0.16	$9 \times 10^{-1}$
		I-133	0.24	0.90	0.22	0.19
		Xe-133	1.80	2.20	2.10	1.40
		Xe-135	0.38	0.44	0.36	

OCONEE NUCLEAR STATION

UNIT NO. 1

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{MI}$			
6-29-76	30 Up	I-131	0.10	0.10	0.10	
		I-133	0.25	0.23	0.25	
		Xe-133	1.50	2.80	1.40	
		Xe-135	0.43	0.36	0.55	
6-28-76	70 Up	I-131	0.10	0.10		
		I-133	0.25	0.27		
		Xe-133	0.45	1.80	1.70	
		Xe-135	0.13	0.41	0.41	
6-27-76	100 down	I-131	0.10	0.70	0.15	0.10
		I-133	0.30	1.0	0.25	0.26
		Xe-133	1.20	2.30	1.80	
		Xe-135	0.24	0.41	0.36	
6-22-76	90 Up	I-131	0.11	0.10	0.10	
		I-133	0.25	0.30	0.30	
		Xe-133	1.50	2.20	2.00	
		Xe-135	0.41	0.47	0.49	
6-21-76	100 down	I-131	0.12	0.36	0.20	0.11
		I-133	0.30	0.65	0.38	0.25
		Xe-133	2.60	2.80	1.50	
		Xe-135	0.38	0.55	0.41	
6-9-76	90 Up	I-131	$8 \times 10^{-1}$	0.28	$6 \times 10^{-1}$	
		I-133	0.30	0.70	0.30	
		Xe-133	1.10	1.40	1.30	
		Xe-135	0.40	0.42	0.35	



OCONEE NUCLEAR STATION

UNIT NO. 1

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{ML}$			
6- 8-76	100 down	I-131	$8 \times 10^{-1}$	0.29	0.14	$6.4 \times 10^{-1}$
		I-133	0.30	0.80	0.32	
		Xe-133	0.41	0.90	0.82	
		Xe-135	0.28	0.37	0.18	
6-1-76	40 Up	I-131	$4.4 \times 10^{-2}$	$4.5 \times 10^{-2}$	$5.8 \times 10^{-2}$	
		I-133		$<10^{-3}$		
		Xe-133	0.35	0.44	0.41	
		Xe-135	0.24	0.38	0.36	
5-31-76	40 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
4-18-76	70 down	I-131	$1.4 \times 10^{-2}$	$3.2 \times 10^{-1}$	$1.8 \times 10^{-1}$	
		I-133	$8.2 \times 10^{-1}$	$9.0 \times 10^{-1}$	$7.5 \times 10^{-1}$	
		Xe-133	0.21	0.32	0.30	
		Xe-135	0.13	0.17	$8 \times 10^{-1}$	

NOTE: Unit did not operate during March, 1976

OCONEE NUCLEAR STATION

UNIT NO. 2

1. 100% Reactor Thermal Power = 2568 MWE
2. RC System Cleanup Flowrate = 70 GPM
3. RC System Temperature = 532°F
4. RC System Pressure = 2155 PSI

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
3-29-77	65 Up	I-131	0.38	0.37	0.33	0.31
		I-133	0.55	0.43	0.45	
		Xe-133	10.3	7.63	8.80	7.00
		Xe-135	5.5	3.43	3.80	3.10
3-28-77	65 down	I-131	0.25	0.26	0.58	0.50
		I-133	0.48	0.78	0.66	0.63
		Xe-133	0.48	0.47	10.3	7.60
		Xe-135	2.60	2.70	5.50	3.40
3-24-77	80 Up	I-131	0.26	0.25	0.26	
		I-133	0.34	0.27	0.36	
		Xe-133	7.80	5.80	5.20	5.00
		Xe-135	2.50	2.30	1.90	1.90
3-23-77	100 down	I-131	0.27	6.20	1.20	0.47
		I-133	0.22	3.30	0.58	0.33
		Xe-133	6.80	4.70	9.50	7.80
		Xe-135	3.40	2.50	2.20	1.90

NOTE: Unit operated at 100% power February and January

12-28-76	60 Up	I-131	0.10	0.12	0.13	0.15
		I-133	0.38	0.46	0.47	0.35
		Xe-133	0.14	0.95	0.95	1.2
		Xe-135	0.60	0.35	1.40	1.60

OCONEE NUCLEAR STATION

UNIT NO. 2

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{ML}$			
12-27-76	100 down	I-131	0.12	0.77	0.18	0.10
		I-133	0.26	2.40	0.37	0.34
		Xe-133	$4 \times 10^{-1}$	0.10	0.19	0.14
		Xe-135	$<10^{-2}$	0.40	0.60	0.35
12-25-76	70 Up	I-131	0.47	1.20	0.30	0.12
		I-133		$<10^{-2}$		
		Xe-133	$4 \times 10^{-1}$	0.10	0.19	0.14
		Xe-135		$<10^{-2}$		
12- 5-76	100 down	I-131	0.31	5.00	3.50	3.52
		I-133	0.25	5.00	1.30	0.72
		Xe-133	4.5	9.3	8.6	1.7
		Xe-135	2.5	2.5	0.85	$4.5 \times 10^{-1}$
NOTE: Unit operated at 100% power during November						
10-17-76	80 Up	I-131	0.40	0.35	0.50	0.40
		I-133	0.42	0.45	0.60	0.52
		Xe-133	6.8	4.7	2.4	
		Xe-135	0.92	1.3	1.4	
10-16-76	60 down	I-131	0.37	5.00	1.6	0.40
		I-133	0.14	1.40	0.30	0.33
		Xe-133	5.7	3.7	6.8	4.7
		Xe-135	1.4	0.85	0.92	1.3
10-13-76	40 down	I-131	0.50	0.60	0.92	0.68
		I-133	0.50	0.60	0.90	0.48
		Xe-133	3.7	4.6	5.0	4.4
		Xe-135	1.9	2.1	1.8	1.2

OCONEE NUCLEAR STATION

UNIT NO. 2

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{ML}$			
10- 4-76	30 Up	I-131	0.37	0.75	0.77	0.55
		I-133	0.57	0.93	0.75	0.60
		Xe-133	5.8	7.2	3.6	5.6
		Xe-135	2.0	2.7	1.6	
10- 3-76	40 down	I-131	0.46	0.38	0.55	0.37
		I-133	0.70	0.56	0.90	0.57
		Xe-133	4.5	3.2	5.8	7.0
		Xe-135	2.2	1.5	2.0	2.7
9-19-76	40 Up	I-131	0.50	0.49	0.65	0.65
		I-133	0.85	0.85	0.75	0.75
		Xe-133	3.5	5.8	7.6	5.8
		Xe-135	1.7	2.1	2.0	1.8
9-18-76	40 down	I-131	0.50	0.49	0.65	0.65
		I-133	0.85	0.85	0.75	0.75
		Xe-133	3.5	5.8	7.6	5.8
		Xe-135	1.7	2.1	2.0	1.8
9-10-76	90 Up	I-131	0.52	3.70	1.60	0.63
		I-133	0.11	5.10	0.12	0.58
		Xe-133	3.6	6.5	4.6	4.0
		Xe-135	1.0	1.0	1.3	1.5
9- 8-76	100 down	I-131	0.52	3.70	1.60	0.63
		I-133	0.11	5.10	0.12	0.58
		Xe-133	4.7	3.6	6.5	4.6
		Xe-135	1.7	1.0	1.0	1.3

OCONEE NUCLEAR STATION

UNIT NO. 2

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
8-30-76	90 Up	I-131	2.00	0.65	0.48	0.42
		I-133	1.20	0.77	0.85	0.85
		Xe-133	1.6	6.5	6.5	4.6
		Xe-135	0.20	1.4	1.4	1.6
8-29-76	90 down	I-131	0.42	0.42	0.50	8.50
		I-133	0.85	1.00	0.88	6.50
		Xe-133	5.8	5.1	6.2	1.6
		Xe-135	1.9	1.7	1.2	0.20
8- 4-76	60 Up	I-131	0.52	1.10	0.58	
		I-133	$1.1 \times 10^{-2}$	$1.0 \times 10^{-2}$	$3.3 \times 10^{-1}$	
		Xe-133	0.62	0.45	0.58	0.68
		Xe-135	$<10^{-3}$	$<10^{-3}$	0.11	0.56
7-27-76	70 down	I-131	1.20	$3.5 \times 10^{-1}$	$8.5 \times 10^{-1}$	1.80
		I-133	$3 \times 10^{-1}$	$4.5 \times 10^{-2}$	$6.2 \times 10^{-2}$	$6.6 \times 10^{-2}$
		Xe-133	2.4	2.5	5.0	3.5
		Xe-135	0.58	0.61	0.13	$1.8 \times 10^{-1}$
7-26-76	30 down	I-131	0.31	0.25	1.0	0.40
		I-133	0.98	0.52	1.4	0.20
		Xe-133	1.9	2.4	2.5	2.4
		Xe-135	.48	0.88	0.95	0.94
7-15-76	35 Up	I-131	$1.5 \times 10^{-2}$	$1.2 \times 10^{-2}$	$2.6 \times 10^{-2}$	
		I-133	$1.2 \times 10^{-1}$	$1.0 \times 10^{-1}$	$1.9 \times 10^{-1}$	
		Xe-133	$1.8 \times 10^{-1}$	$2.3 \times 10^{-1}$	$5.1 \times 10^{-1}$	
		Xe-135	$2.5 \times 10^{-1}$	$4.8 \times 10^{-1}$	$5.1 \times 10^{-1}$	

OCONEE NUCLEAR STATION

UNIT NO. 2

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
7-13-76	40 Up	I-131		$<10^{-3}$		
		I-133	$5.5 \times 10^{-2}$	$3.7 \times 10^{-1}$	$1.1 \times 10^{-1}$	
		Xe-133	$<10^{-3}$	$7.8 \times 10^{-2}$	$1.9 \times 10^{-1}$	
		Xe-135	$1.3 \times 10^{-2}$	$2.5 \times 10^{-2}$	$5.0 \times 10^{-1}$	
7-12-76	25 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
7-11-76	25 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
NOTE: Unit did not operate during June and May						
4- 7-76	70 down	I-131	$1.7 \times 10^{-1}$	$1.6 \times 10^{-1}$	1.9	1.6
		I-133	$1.3 \times 10^{-1}$	$1.7 \times 10^{-1}$	1.2	$4.2 \times 10^{-1}$
		Xe-133	0.90	0.90	1.3	0.65
		Xe-135	0.24	0.24	0.36	0.20
3-27-76	30 down	I-131	$1.6 \times 10^{-1}$	$1.8 \times 10^{-1}$	$2.0 \times 10^{-1}$	$1.5 \times 10^{-1}$
		I-133	$2.2 \times 10^{-1}$	$2.5 \times 10^{-1}$	$2.9 \times 10^{-1}$	$1.8 \times 10^{-1}$
		Xe-133	0.90	0.30	0.86	$8.8 \times 10^{-1}$
		Xe-135	0.23	$5.3 \times 10^{-1}$	0.13	$1.6 \times 10^{-1}$

OCONEE NUCLEAR STATION

UNIT NO. 3

1. 100% Reactor Thermal Power = 2568 MWE
2. RC System Cleanup Flowrate = 70 GPM
3. RC System Temperature = 532°F
4. RC System Pressure = 2155 PSI

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{ml}$			
3-17-76	70 Up	I-131	$1.5 \times 10^{-2}$	$2.3 \times 10^{-2}$	$1.2 \times 10^{-1}$	$4.8 \times 10^{-2}$
		I-133	$1.6 \times 10^{-2}$	$1.8 \times 10^{-2}$	$1.4 \times 10^{-1}$	$3.8 \times 10^{-2}$
		Xe-133	$8.1 \times 10^{-1}$	$8.0 \times 10^{-1}$	$8.0 \times 10^{-1}$	$6.9 \times 10^{-1}$
		Xe-135	$1.5 \times 10^{-1}$	$1.7 \times 10^{-1}$	$1.8 \times 10^{-1}$	$1.9 \times 10^{-1}$
3-16-77	100 down	I-131	$1.5 \times 10^{-2}$	$2.3 \times 10^{-2}$	$1.2 \times 10^{-1}$	$4.8 \times 10^{-2}$
		I-133	$1.6 \times 10^{-2}$	$1.8 \times 10^{-2}$	$1.4 \times 10^{-1}$	$3.8 \times 10^{-2}$
		Xe-133	$2.8 \times 10^{-1}$	$2.6 \times 10^{-1}$	1.20	$8.2 \times 10^{-1}$
		Xe-135	$1.1 \times 10^{-1}$	$1.1 \times 10^{-1}$	$2.7 \times 10^{-1}$	$1.5 \times 10^{-1}$
2-26-77	50 Up	I-131	$1.6 \times 10^{-2}$		$<10^{-3}$	
		I-133	$4.0 \times 10^{-2}$		$<10^{-3}$	
		Xe-133	$6.1 \times 10^{-2}$	$7.9 \times 10^{-2}$	$1 \times 10^{-1}$	$9.1 \times 10^{-2}$
		Xe-135	$<10^{-3}$	$4 \times 10^{-2}$	$5.8 \times 10^{-2}$	$<10^{-3}$
2-14-77	100 down	I-131	$<10^{-3}$	$1.8 \times 10^{-1}$	$9 \times 10^{-2}$	$<10^{-3}$
		I-133	$<10^{-3}$	$9 \times 10^{-2}$	$1.7 \times 10^{-2}$	$<10^{-3}$
		Xe-133	$3.4 \times 10^{-2}$	$2.1 \times 10^{-1}$	$4.9 \times 10^{-1}$	$1.8 \times 10^{-1}$
		Xe-135	$<10^{-3}$	$1.2 \times 10^{-2}$	$3.5 \times 10^{-2}$	$<10^{-3}$

NOTE: Unit at 100% power during January and December

11-17-76	35 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.6 \times 10^{-2}$	$1.2 \times 10^{-2}$	$<10^{-3}$	
		Xe-135		$<10^{-3}$		

OCONEE NUCLEAR STATION

UNIT NO. 3

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
11-15-76	40 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.4 \times 10^{-2}$	$1.6 \times 10^{-2}$	$1.2 \times 10^{-2}$	$1.3 \times 10^{-2}$
		Xe-135		$<10^{-3}$		
11-14-76	40 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.8 \times 10^{-2}$	$1.3 \times 10^{-2}$	$1.6 \times 10^{-2}$	
		Xe-135		$<10^{-3}$		
11-13-76	40 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		

NOTE: Unit did not operate during October.

9-18-76	80 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.7 \times 10^{-2}$	$1.4 \times 10^{-2}$	$1.5 \times 10^{-2}$	
		Xe-135		$<10^{-3}$		
9-17-76	80 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.6 \times 10^{-2}$	$1.5 \times 10^{-2}$	$1.7 \times 10^{-2}$	$1.4 \times 10^{-2}$
		Xe-135		$<10^{-3}$		
9-16-76	45 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$1.4 \times 10^{-2}$	$1.6 \times 10^{-2}$	$1.5 \times 10^{-2}$	$1.6 \times 10^{-2}$
		Xe-135		$<10^{-3}$		



OCONEE NUCLEAR STATION

UNIT NO. 3

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY			
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$			
9-10-76	60 down	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133	2 x 10 <sup>-2</sup>	2.5 x 10 <sup>-2</sup>	2.8 x 10 <sup>-2</sup>	2.5 x 10 <sup>-2</sup>
		Xe-135		<10 <sup>-3</sup>		
8-17-76	40 down	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133		<10 <sup>-3</sup>		
		Xe-135		<10 <sup>-3</sup>		
8-1-76	60 Up	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133		<10 <sup>-3</sup>		
		Xe-135		<10 <sup>-3</sup>		
7-21-76	100 down	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133		<10 <sup>-3</sup>		
		Xe-135		<10 <sup>-3</sup>		
7-12-76	80 Up	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133		<10 <sup>-3</sup>		
		Xe-135		<10 <sup>-3</sup>		
7-11-76	80 down	I-131		<10 <sup>-3</sup>		
		I-133		<10 <sup>-3</sup>		
		Xe-133		<10 <sup>-3</sup>		
		Xe-135		<10 <sup>-3</sup>		

OCONEE NUCLEAR STATION

UNIT NO. 3

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY	
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$	
7- 9-76	80 Up	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	
7- 2-76	100 down	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	

NOTE: Unit at 100% power during June and May

4-23-76	35 Up	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	
4-22-76	35 down	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	
4-21-76	80 UP	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	
4-20-76	100 down	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	

OCONEE NUCLEAR STATION

UNIT NO. 3

DATE	% POWER	ISOTOPE	RC SYSTEM ACTIVITY	
			CONCENTRATION $\mu\text{Ci}/\text{Ml}$	
4-17-76	80 Up	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	
3-20-76	100 down	I-131	<10 <sup>-3</sup>	
		I-133	<10 <sup>-3</sup>	
		Xe-133	<10 <sup>-3</sup>	
		Xe-135	<10 <sup>-3</sup>	