

50-268/270/287

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TO:

Mr. A. Schwencer

FROM:

Duke Power Company  
Charlotte, North Carolina  
William O. Parker

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RE LTR 4-18-77

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PLANT NAME: Oconee Units 1-2-3

RJL 6/20/77

ENCLOSURE

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

(17-P)

## SAFETY

## FOR ACTION/INFORMATION

## ENVIRONMENTAL

ASSIGNED AD:

ASSIGNED AD: V. MOORE (LTR)

BRANCH CHIEF:

BRANCH CHIEF:

PROJECT MANAGER:

PROJECT MANAGER:

LICENSING ASSISTANT:

LICENSING ASSISTANT:

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771710068

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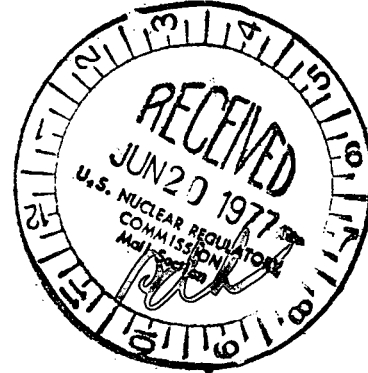
June 14, 1977

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. H. B. Tucker
Mr. J. E. Smith	Mr. K. S. Canady
Mr. R. F. Wardell	Mr. D. C. Holt
Mr. R. B. Thompson	Mr. M. S. Tuckman
Mr. W. A. Haller	Mr. Lionel Lewis
Mr. C. T. Yongue	
Master File: OS 801.03	
Section File: OS 801.03	

771710068

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 $\mu\text{Ci}/\text{Ml}$			
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	0.22
		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		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133	$2 \times 10^{-2}$	$2.5 \times 10^{-2}$	$2.8 \times 10^{-2}$	$2.5 \times 10^{-2}$
		Xe-135		$<10^{-3}$		
8-17-76	40 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
8-1-76	60 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
7-21-76	100 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
7-12-76	80 Up	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		
7-11-76	80 down	I-131		$<10^{-3}$		
		I-133		$<10^{-3}$		
		Xe-133		$<10^{-3}$		
		Xe-135		$<10^{-3}$		

# OCONEE NUCLEAR STATION

UNIT NO. 3

			RC SYSTEM ACTIVITY
DATE	% POWER	ISOTOPE	CONCENTRATION $\mu\text{Ci}/\text{Ml}$
7- 9-76	80 Up	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$
7- 2-76	100 down	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$
NOTE: Unit at 100% power during June and May			
4-23-76	35 Up	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$
4-22-76	35 down	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$
4-21-76	80 UP	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$
4-20-76	100 down	I-131	$<10^{-3}$
		I-133	$<10^{-3}$
		Xe-133	$<10^{-3}$
		Xe-135	$<10^{-3}$

# 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>	