NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

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DOCKET NUMBER: 50-269/270/287

FILE NUMBER: MONTHLY REPORT

TO:	FROM:	DATE OF DOCUMENT: 10-10-77
		DATE RECEIVED: 10-13-77

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DESCRIPTION

Letter trans the following:

PLANT NAME: Oconee Units 1, 2 & 3

10-13-77 sdh

ENCLOSURE

Monthly Report for September, 1977
Plant & Component Operability & Availability.
This Report to be used in preparing Gray Book by Plans & Operations.

9p

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FOR ACTION/INFORMATION

MIPC W/2 CYS FOR ACTION

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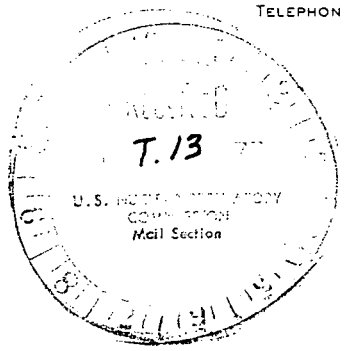
NRC FORM 195 (2-76)

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

October 10, 1977



Director
Office of Management Information
and Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

Dear Sir:

Please find attached information concerning the performance and operating status of the Oconee Nuclear Station for the month of September, 1977.

In February 1977, Oconee computed the Reactor Critical Hours for Unit 3 incorrectly. The incorrect hours have been carried on this report for the past eight months. We have incorporated the correction into this report.

Very truly yours,

William O Parker Jr /ge

William O. Parker, Jr.

JAR:ge
Attachment

cc: Mr. J. P. O'Reilly

UNIT Oconee Unit 1
DATE 10/10/77
DOCKET NO. 50-269
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1977
   GROSS HOURS IN REPORTING PERIOD: 720.00
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY (MWe-Net): 860
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY): (MWe-Net)
4. REASONS FOR RESTRICTION (IF ANY)

		This Month	Year to Date	Cumulative
5.	NUMBER OF HOURS THE REACTOR WAS CRITICAL	0	3835.41	25951.21
6.	REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7.	HOURS GENERATOR ON-LINE	0	3777.64	23741.63
8.	UNIT RESERVE SHUTDOWN HOURS	-	-	-
9.	GROSS THERMAL ENERGY GENERATED (MWH)	0	8879906	55265617
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	0	3065630	19189060
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	(4695)	2897471	18130004
12.	REACTOR SERVICE FACTOR	0	58.55	70.31
13.	REACTOR AVAILABILITY FACTOR	0	59.66	66.72
14.	UNIT SERVICE FACTOR	0	57.67	64.32
15.	UNIT AVILABILITY FACTOR	0	57.67	64.40
16.	UNIT CAPACITY FACTOR (Using Net Capability)	0	51.43	57.11
17.	UNIT CAPACITY FACTOR (Using Design Mwe)	0	49.86	55.37
18.	UNIT FORCED OUTAGE RATE	0	27.31	19.41

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)

20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
    October 16, 1977

REACTOR SERVICE FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS AVAILABLE TO OPERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

UNIT SERVICE FACTOR = $\frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

UNIT AVAILABILITY FACTOR = $\frac{\text{HOURS UNIT WAS AVAILABLE TO GENERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$

UNIT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{[Net Capability or Design (Mwe-Net)] X HOURS IN REPORTING PERIOD}} \times 100$

UNIT FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE + FORCED OUTAGE HOURS}} \times 100$

DOCKET NO. 50-269
UNIT Oconee Unit 1
DATE 10/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

On this form, list the average daily unit power level in MWe-net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that by using maximum dependable capacity for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

DOCKET NO. 50-269
UNIT NAME Oconee Unit 1
DATE 10/10/77

UNIT SHUTDOWNS

REPORT MONTH September, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
14	77-09-01	S	408.00	C	1	Refueling
15	77-09-18	S	312.00	B	N/A	Steam generator maintenance

(1) REASON
A--EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST.
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)
H-OTHER (EXPLAIN)

(2) METHOD
1-MANUAL
2-MANUAL SCRAM
3-AUTOMATIC SCRAM
4-Other

SUMMARY:

Refueling completed. Outage extended for inspection of steam generator.

UNIT Oconee Unit 2
DATE 10/10/77
DOCKET NO. 50-270
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1977
   GROSS HOURS IN REPORTING PERIOD: 720.00
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY (MWe-Net): 860
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY):(MWe-Net)
4. REASONS FOR RESTRICTION (IF ANY)

		This Month	Year to Date	Cumulative
5.	NUMBER OF HOURS THE REACTOR WAS CRITICAL	426.36	4106.79	18333.82
6.	REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7.	HOURS GENERATOR ON-LINE	396.50	4016.39	17781.93
8.	UNIT RESERVE SHUTDOWN HOURS	-	-	-
9.	GROSS THERMAL ENERGY GENERATED(MWH)	832894	9802610	42563872
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	282600	3321360	14476966
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	262534	3154190	13738313
12.	REACTOR SERVICE FACTOR	59.22	62.69	68.33
13.	REACTOR AVAILABILITY FACTOR	57.00	61.63	66.75
14.	UNIT SERVICE FACTOR	55.07	61.31	66.27
15.	UNIT AVILABILITY FACTOR	55.07	61.31	66.27
16.	UNIT CAPACITY FACTOR (Using Net Capability)	42.40	55.99	59.54
17.	UNIT CAPACITY FACTOR (Using Design Mwe)	41.11	54.28	57.72
18.	UNIT FORCED OUTAGE RATE	43.85	8.92	22.21

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)

20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

$$\text{REACTOR SERVICE FACTOR} = \frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{REACTOR AVAILABILITY FACTOR} = \frac{\text{HOURS REACTOR WAS AVAILABLE TO OPERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT SERVICE FACTOR} = \frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT AVAILABILITY FACTOR} = \frac{\text{HOURS UNIT WAS AVAILABLE TO GENERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT CAPACITY FACTOR} = \frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{[Net Capability or Design (Mwe-Net)] X HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT FORCED OUTAGE RATE} = \frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE + FORCED OUTAGE HOURS}} \times 100$$

DOCKET NO. 50-270
UNIT Oconee Unit 2
DATE 10/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	638	17	-
2	636	18	-
3	745	19	-
4	443	20	-
5	609	21	-
6	774	22	-
7	797	23	-
8	799	24	-
9	794	25	439
10	798	26	764
11	534	27	774
12	-	28	517
13	-	29	541
14	-	30	541
15	-	31	-
16	-		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

On this form, list the average daily unit power level in MWe-net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that by using maximum dependable capacity for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

DOCKET NO. 50-270
UNIT NAME Oconee Unit 2
DATE 10/10/77

UNIT SHUTDOWNS

REPORT MONTH September, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
4	77-09-04	S	6.00	B	1	Turbine main stop valve modified.
5	77-09-11	F	196.24	A	1	OTSG "2B" leak around OTSG vibration testing instrumentation seal.
6	77-09-19	F	47.60	A	1	Replaced stator on control rod drive.
7	77-09-21	F	33.92	A	1	Replaced stator on control rod drive.
8	77-09-23	F	7.88	A	1	Repaired leaking pipe fitting on EHC system.
9	77-09-23	F	31.86	A	1	Replaced stator on control rod drive.

(1) REASON
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST.
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)
H-OTHER (EXPLAIN)

(2) METHOD
1-MANUAL
2-MANUAL SCRAM
3-AUTOMATIC SCRAM

SUMMARY:

No major outage this month.

UNIT Oconee Unit 3
DATE 10/10/77
DOCKET NO. 50-287
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1977
   GROSS HOURS IN REPORTING PERIOD: 720.00
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY (MWe-Net): 860
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY):(MWe-Net) _____
4. REASONS FOR RESTRICTION (IF ANY) _____

		This Month	Year to Date	Cumulative
5.	NUMBER OF HOURS THE REACTOR WAS CRITICAL	720.00	5630.82	19033.52
6.	REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7.	HOURS GENERATOR ON-LINE	712.71	5548.55	18572.05
8.	UNIT RESERVE SHUTDOWN HOURS	-	-	-
9.	GROSS THERMAL ENERGY GENERATED(MWH)	1743415	13739161	44107378
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	603630	4771470	15210914
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	574837	4549109	14482751
12.	REACTOR SERVICE FACTOR	100.00	85.95	77.75
13.	REACTOR AVAILABILITY FACTOR	98.99	84.78	77.89
14.	UNIT SERVICE FACTOR	98.99	84.70	75.87
15.	UNIT AVILABILITY FACTOR	98.99	84.70	75.87
16.	UNIT CAPACITY FACTOR (Using Net Capability)	92.84	80.75	68.80
17.	UNIT CAPACITY FACTOR (Using Design Mwe)	90.01	78.29	66.70
18.	UNIT FORCED OUTAGE RATE	1.01	15.30	14.37

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
    Refueling - October 22, 1977 - 6 weeks
20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

$$\text{REACTOR SERVICE FACTOR} = \frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{REACTOR AVAILABILITY FACTOR} = \frac{\text{HOURS REACTOR WAS AVAILABLE TO OPERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT SERVICE FACTOR} = \frac{\text{HOURS GENERATOR ON LINE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT AVAILABILITY FACTOR} = \frac{\text{HOURS UNIT WAS AVAILABLE TO GENERATE}}{\text{HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT CAPACITY FACTOR} = \frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{[Net Capability or Design (Mwe-Net)] X HOURS IN REPORTING PERIOD}} \times 100$$

$$\text{UNIT FORCED OUTAGE RATE} = \frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON LINE + FORCED OUTAGE HOURS}} \times 100$$

DOCKET NO. 50-287
UNIT Oconee Unit 3
DATE 10/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	850	17	842
2	539	18	839
3	406	19	839
4	681	20	837
5	838	21	836
6	853	22	839
7	853	23	839
8	723	24	838
9	601	25	838
10	810	26	837
11	850	27	838
12	842	28	835
13	845	29	835
14	847	30	830
15	847	31	
16	844		

DAILY UNIT POWER LEVEL FORM INSTRUCTIONS

On this form, list the average daily unit power level in MWe-net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that by using maximum dependable capacity for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

DOCKET NO. 50-287
UNIT NAME Oconee Unit 3
DATE 10/10/77

UNIT SHUTDOWNS

REPORT MONTH September, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
10	77-09-2	F	7.29	D	1	Reactor Building spray pump out of service more than 24 hours. Shutdown per Oconee Technical Specification 3.3.

(1) REASON
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)
H-OTHER (EXPLAIN)

(2) METHOD
1-MANUAL
2-MANUAL SCRAM
3-AUTOMATIC SCRAM
4-Other

SUMMARY:

No major outage this month.