NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

DOCKET NUMBER: 50-269/270/287

FILE NUMBER: MONTHLY REPORT

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TO:	FROM:	DATE OF DOCUMENT
N. R. C.	Duke Power Company Charlotte, North Carolina William O. Parker, Jr.	11/10/77
		DATE RECEIVED: 11/14/77

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DESCRIPTION

Letter trans the following:

(1-P)

ENCLOSURE

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

(9-P)

PLANT NAME:
Oconee Units 1-2-3
RJL 11/14/77

1 ENCL

FOR ACTION/INFORMATION

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NRC FORM 195 (2-76)

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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

November 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 October, 1977.

Very truly yours,

William O Parker Jr. by WAH
William O. Parker, Jr.

JAR:ge
Attachment

cc: Mr. J. P. O'Reilly

773180126

UNIT Monee Unit 1
DATE 11/10/77
DOCKET NO. 50-269
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: October 1 THROUGH October 31, 1977
   GROSS HOURS IN REPORTING PERIOD: 745
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	407.2	4,242.6	26,358.4
6.	REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7.	HOURS GENERATOR ON-LINE	327.0	4,104.7	24,068.7
8.	UNIT RESERVE SHUTDOWN HOURS	-	-	-
9.	GROSS THERMAL ENERGY GENERATED(MWH)	445,631	9,325,537	55,711,248
10.	GROSS ELECTRICAL ENERGY GENERATED (MWH)	123,670	3,189,300	19,312,730
11.	NET ELECTRICAL ENERGY GENERATED (MWH)	103,632	3,001,103	18,233,636
12.	REACTOR SERVICE FACTOR	54.7	58.2	70.0
13.	REACTOR AVAILABILITY FACTOR	43.9	58.1	66.3
14.	UNIT SERVICE FACTOR	43.9	56.3	63.9
15.	UNIT AVILABILITY FACTOR	43.9	56.3	64.0
16.	UNIT CAPACITY FACTOR (Using Net Capability)	16.2	47.8	56.3
17.	UNIT CAPACITY FACTOR (Using Design Mwe)	15.7	46.4	54.6
18.	UNIT FORCED OUTAGE RATE	2.7	25.8	19.2

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

    None

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

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 NAME Oconee Unit 1
DATE 11/10/77

UNIT SHUTDOWNS

REPORT MONTH October, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
15	77/10/01	S	87.40	B	4	Continuation of outage for steam generator maintenance.
16	77/10/04	S	236.60	B	4	Outage continued to correct reactor coolant pump seal leakage.
17	77/10/14	S	85.05	B	4	Zero power physics testing
18	77/10/18	F	8.91	A	3	Loss of "A" feedwater pump caused trip.

(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:

One major outage this month.

DOCKET NO. 50-269
UNIT Oconee Unit 1
DATE 11-10-77

AVERAGE DAILY UNIT POWER LEVEL

MONTH October, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	-	17	-
2	-	18	61
3	-	19	293
4	-	20	309
5	-	21	287
6	-	22	217
7	-	23	208
8	-	24	212
9	-	25	286
10	-	26	290
11	-	27	296
12	-	28	318
13	-	29	579
14	-	30	625
15	-	31	627
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.

UNIT Monticello Unit 2
DATE 11/10/77
DOCKET NO. 50-270
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: October 1 THROUGH October 31, 1977
   GROSS HOURS IN REPORTING PERIOD: 745
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	265.9	4,372.7	18,599.7
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	248.0	4,264.4	18,029.9
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED(MWH)	415,194	10,217,804	42,979,066
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	138,120	3,459,480	14,615,086
11. NET ELECTRICAL ENERGY GENERATED (MWH)	124,827	3,279,017	13,863,140
12. REACTOR SERVICE FACTOR	35.7	59.9	67.5
13. REACTOR AVAILABILITY FACTOR	33.3	58.7	65.8
14. UNIT SERVICE FACTOR	33.3	58.5	65.4
15. UNIT AVILABILITY FACTOR	33.3	58.5	65.4
16. UNIT CAPACITY FACTOR (Using Net Capability)	19.5	52.3	58.5
17. UNIT CAPACITY FACTOR (Using Design Mwe)	18.9	50.7	56.7
18. UNIT FORCED OUTAGE RATE	66.7	17.4	23.6

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

None

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

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. 50-270

UNIT NAME Oconee Unit 2

DATE 11/10/77

UNIT SHUTDOWNS

REPORT MONTH October, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
10	77/10/07	F	497.00	A	1	Shutdown to investigate indicated tube leak in "2B" steam generator.

(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:

One major outage this month.

DOCKET NO. 50-270

UNIT Oconee Unit 2

DATE 11/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH October, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	533	17	-
2	516	18	-
3	501	19	-
4	507	20	-
5	510	21	-
6	569	22	-
7	457	23	-
8	-	24	-
9	-	25	-
10	-	26	-
11	-	27	-
12	-	28	116
13	-	29	527
14	-	30	556
15	-	31	556
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.

UNIT Oconee Unit 3
DATE 11/10/77
DOCKET NO. 50-287
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: October 1 THROUGH October 31, 1977
   GROSS HOURS IN REPORTING PERIOD: 745
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	506.4	6,137.3	19,540.0
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	491.0	6,039.5	19,063.0
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1,111,101	14,850,262	45,218,479
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	382,940	5,154,410	15,593,854
11. NET ELECTRICAL ENERGY GENERATED (MWH)	361.647	4,910,756	14,844,398
12. REACTOR SERVICE FACTOR	68.0	84.1	77.5
13. REACTOR AVAILABILITY FACTOR	67.2	83.0	77.6
14. UNIT SERVICE FACTOR	65.9	82.8	75.6
15. UNIT AVAILABILITY FACTOR	65.9	82.8	75.6
16. UNIT CAPACITY FACTOR (Using Net Capability)	56.5	78.3	68.4
17. UNIT CAPACITY FACTOR (Using Design Mwe)	54.7	75.9	66.4
18. UNIT FORCED OUTAGE RATE	1.9	14.4	14.1

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

20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
    December 4, 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. 50-287

UNIT NAME Oconee Unit 3

DATE 11/10/77

UNIT SHUTDOWNS

REPORT MONTH October 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
11	77/10/13	F	9.66	A	3	Indicated loss of DC power to EHC system caused trip.
12	77/10/21	S	244.38	C	1	Started scheduled refueling outage

(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:

Began refueling this month.

DOCKET NO. 50-287
UNIT Oconee Unit 3
DATE 11/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH October 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	825	17	721
2	816	18	721
3	804	19	720
4	791	20	644
5	787	21	503
6	787	22	-
7	786	23	-
8	787	24	-
9	788	25	-
10	787	26	-
11	787	27	-
12	787	28	-
13	349	29	-
14	515	30	-
15	713	31	-
16	721		

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.