

50-269/270/287

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MONTHLY REPORT

TO: NRC

FROM: Duke Power Co.
Charlotte, N.C. 28242
William O. Parker, Jr.

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2-10-77

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(1 page)

PLANT NAME: OCONEE UNITS 1-3

ENCLOSURE
MONTHLY REPORT FOR January, 1977
PLANT & COMPONENT OPERABILITY &
AVAILABILITY. THIS REPORT TO BE USED IN
PREPARING GRAY BOOK BY PLANS & OPERATIONS.

(1 encl rec'd)
(9 pages)

**DO NOT REMOVE
ACKNOWLEDGED**

SAFETY

FOR ACTION/INFORMATION

ENVIRO

JCM 2-15-77

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DUKE POWER COMPANY

POWER BUILDING

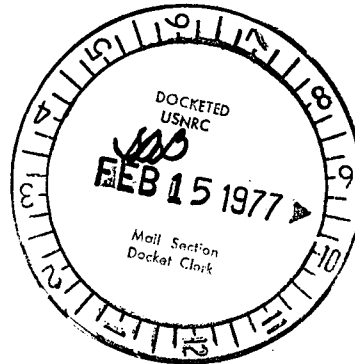
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

February 10, 1977

TELEPHONE: AREA 704
373-4083

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 January, 1977.

Very truly yours,

William O. Parker Jr. WOP

William O. Parker, Jr.

LJB:ge
Attachment

cc: Mr. Norman C. Moseley



1626

OPERATING STATUS

1. REPORTING PERIOD: January 1 THROUGH January 31, 1977
GROSS HOURS IN REPORTING PERIOD: 744.0
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) _____
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
	505.8	505.8	22621.6
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	501.1	501.1	20465.0
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1280951	1280951	47666662
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	436680	436680	16560110
11. NET ELECTRICAL ENERGY GENERATED (MWH)	415314	415314	15647847
12. REACTOR SERVICE FACTOR	68.0	68.0	72.7
13. REACTOR AVAILABILITY FACTOR	67.4	67.4	68.2
14. UNIT SERVICE FACTOR	67.4	67.4	65.8
15. UNIT AVAILABILITY FACTOR	67.4	67.4	65.9
16. UNIT CAPACITY FACTOR (Using Net Capability)	64.9	64.9	58.5
17. UNIT CAPACITY FACTOR (Using Design Mwe)	62.9	62.9	56.7
18. UNIT FORCED OUTAGE RATE	32.7	32.7	18.2
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
Refueling - June 5, 1977 - 6 weeks
20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

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

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

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

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

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

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

UNIT SHUTDOWNS

DOCKET NO. 50-269

UNIT NAME Oconee Unit 1

DATE 2/10/77

REPORT MONTH January, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
1	76-01-15	F	222.20	A	1	Repair steam generator tube leak
2	76-01-25	F	20.75	A	N/A	Replace control rod drive PI tube which failed during startup.

(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 2/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH January, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	856	17	-
2	852	18	-
3	854	19	-
4	859	20	-
5	861	21	-
6	859	22	-
7	861	23	-
8	867	24	-
9	867	25	-
10	864	26	481
11	866	27	751
12	865	28	845
13	867	29	866
14	863	30	825
15	720	31	859
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 2
DATE 2/10/77
DOCKET NO. 50-270
PREPARED BY L. J. Bare

OPERATING STATUS

1. REPORTING PERIOD: January 1 THROUGH January 31, 1976
GROSS HOURS IN REPORTING PERIOD: 744.0
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) _____
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	744.0	744.0	14509.54
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1916321	1916321	34682052
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	652990	652990	11808596
11. NET ELECTRICAL ENERGY GENERATED (MWH)	626360	626360	11210483
12. REACTOR SERVICE FACTOR	100.0	100.0	71.2
13. REACTOR AVAILABILITY FACTOR	100.0	100.0	69.5
14. UNIT SERVICE FACTOR	100.0	100.0	69.0
15. UNIT AVAILABILITY FACTOR	100.0	100.0	69.0
16. UNIT CAPACITY FACTOR (Using Net Capability)	97.9	97.9	62.0
17. UNIT CAPACITY FACTOR (Using Design Mwe)	94.9	94.9	60.1
18. UNIT FORCED OUTAGE RATE	0	0	24.4
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
Refueling - July 17, 1977 - 6 weeks
20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

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

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

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

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

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

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

DOCKET NO. 50-270

UNIT Oconee Unit. 2

DATE 2/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH January, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	<u>839</u>	17	<u>845</u>
2	<u>838</u>	18	<u>843</u>
3	<u>841</u>	19	<u>847</u>
4	<u>844</u>	20	<u>840</u>
5	<u>845</u>	21	<u>849</u>
6	<u>843</u>	22	<u>849</u>
7	<u>843</u>	23	<u>849</u>
8	<u>845</u>	24	<u>843</u>
9	<u>845</u>	25	<u>844</u>
10	<u>841</u>	26	<u>821</u>
11	<u>848</u>	27	<u>836</u>
12	<u>833</u>	28	<u>836</u>
13	<u>842</u>	29	<u>838</u>
14	<u>843</u>	30	<u>841</u>
15	<u>843</u>	31	<u>842</u>
16	<u>844</u>		

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 SHUTDOWNS

DOCKET NO. 50-270

UNIT NAME Oconee Unit 2

DATE 2/10/77

REPORT MONTH January, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>(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)</p> </div> <div style="width: 35%;"> <p>(2) METHOD 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM 4-Other</p> </div> </div>						

SUMMARY:

No outages this month.

UNIT Oconee Unit 3
DATE 2/10/77
DOCKET NO. 50-287
PREPARED BY L. J. Bare

OPERATING STATUS

1. REPORTING PERIOD: January 1 THROUGH January 31, 1977
GROSS HOURS IN REPORTING PERIOD: 744.0

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) _____

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL	744.0	744.0	14146.7
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	744.0	744.0	13767.5
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1940591	1940591	32308808
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	673290	673290	11112734
11. NET ELECTRICAL ENERGY GENERATED (MWH)	646466	646466	10580108
12. REACTOR SERVICE FACTOR	100.0	100.0	75.8
13. REACTOR AVAILABILITY FACTOR	100.0	100.0	76.4
14. UNIT SERVICE FACTOR	100.0	100.0	73.7
15. UNIT AVAILABILITY FACTOR	100.0	100.0	73.7
16. UNIT CAPACITY FACTOR (Using Net Capability)	101.0	101.0	65.9
17. UNIT CAPACITY FACTOR (Using Design Mwe)	98.0	98.0	63.9
18. UNIT FORCED OUTAGE RATE	0	0	13.3
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)			

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

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

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

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

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

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

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

DOCKET NO. 50-287

UNIT Oconee Unit 3

DATE 2/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH January, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	<u>871</u>	17	<u>870</u>
2	<u>870</u>	18	<u>870</u>
3	<u>870</u>	19	<u>870</u>
4	<u>870</u>	20	<u>870</u>
5	<u>873</u>	21	<u>869</u>
6	<u>868</u>	22	<u>869</u>
7	<u>869</u>	23	<u>867</u>
8	<u>866</u>	24	<u>864</u>
9	<u>863</u>	25	<u>864</u>
10	<u>866</u>	26	<u>867</u>
11	<u>867</u>	27	<u>870</u>
12	<u>867</u>	28	<u>869</u>
13	<u>870</u>	29	<u>870</u>
14	<u>871</u>	30	<u>872</u>
15	<u>872</u>	31	<u>871</u>
16	<u>870</u>		

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 SHUTDOWNS

DOCKET NO. 50-287

UNIT NAME Oconee Unit 3

DATE 2/10/77

REPORT MONTH January, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>(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)</p> </div> <div style="width: 45%;"> <p>(2) METHOD 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM 4-Other</p> </div> </div>						

SUMMARY:

No outages this month.