

50-269/270/287

FILE NUMBER
MONTHLY REPORT

FROM: DUKE POWER CO.
W.O. PARKER, JR.
CHARLOTTE, N.C.

10-9-76

DATE RECEIVED
10-14-76

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DESCRIPTION LETTER TRANS THE FOLLOWING:

ENCLOSURE
MONTHLY REPORT FOR SEPTEMBER 1976
PLANT & COMPONENT OPERABILITY &
AVAILABILITY. THIS REPORT TO BE USED IN
PREPARING GRAY BOOK BY PLANS & OPERATIONS

DO NOT REMOVE

ACKNOWLEDGED

PLANT NAME: OCONEE #1, 2, & 3

SAFETY

FOR ACTION/INFORMATION

ENVIRO

~~SAB 10-14-76~~

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DUKE POWER COMPANY

POWER BUILDING

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

Regulatory

File Cy.

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

October 9, 1976

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 September, 1976.

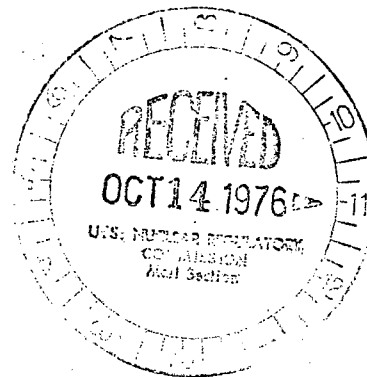
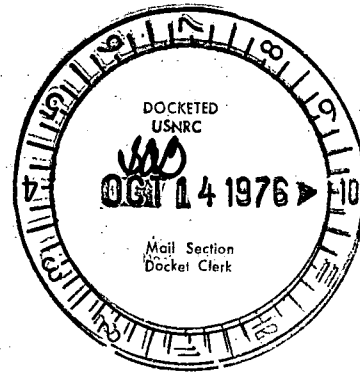
Very truly yours,

William O. Parker, Jr.

William O. Parker, Jr. *PJB*

LJB:ge
Attachment

cc: Mr. Norman C. Moseley



10420

UNIT Osonee Unit 1
DATE 9/9/76
DOCKET NO. 50-269
PREPARED BY L. J. Bare

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1976
GROSS HOURS IN REPORTING PERIOD: 720.00
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY
(MWe-Net): 871
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 | 703.8 | 4227.3 | 20999.4 |
| 6. REACTOR RESERVE SHUTDOWN HOURS | | | |
| 7. HOURS GENERATOR ON-LINE | 688.5 | 3963.3 | 18894.1 |
| 8. UNIT RESERVE SHUTDOWN HOURS | | | |
| 9. GROSS THERMAL ENERGY GENERATED (MWH) | 1715845 | 9545654 | 43769796 |
| 10. GROSS ELECTRICAL ENERGY GENERATED (MWH) | 594740 | 3333300 | 15228020 |
| 11. NET ELECTRICAL ENERGY GENERATED (MWH) | 565492 | 3152802 | 14392451 |
| 12. REACTOR SERVICE FACTOR | 97.7 | 64.3 | 74.6 |
| 13. REACTOR AVAILABILITY FACTOR | 95.6 | 61.6 | 68.3 |
| 14. UNIT SERVICE FACTOR | 95.6 | 60.3 | 67.1 |
| 15. UNIT AVAILABILITY FACTOR | 95.6 | 60.3 | 67.2 |
| 16. UNIT CAPACITY FACTOR (Using Net Capability) | 90.2 | 55.1 | 58.7 |
| 17. UNIT CAPACITY FACTOR (Using Design Mwe) | 88.6 | 54.1 | 57.6 |
| 18. UNIT FORCED OUTAGE RATE | .7 | 3.8 | 14.3 |
| 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. 50-269
UNIT Oconee Unit 1
DATE 10/9/76

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1976

DAY AVERAGE DAILY POWER LEVEL
(MWe-net)

1	<u>465</u>
2	<u>797</u>
3	<u>843</u>
4	<u>650</u>
5	<u>-</u>
6	<u>738</u>
7	<u>820</u>
8	<u>841</u>
9	<u>834</u>
10	<u>818</u>
11	<u>841</u>
12	<u>842</u>
13	<u>841</u>
14	<u>840</u>
15	<u>840</u>
16	<u>837</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-net)

17	<u>835</u>
18	<u>835</u>
19	<u>834</u>
20	<u>834</u>
21	<u>830</u>
22	<u>839</u>
23	<u>842</u>
24	<u>840</u>
25	<u>841</u>
26	<u>832</u>
27	<u>841</u>
28	<u>842</u>
29	<u>841</u>
30	<u>840</u>
31	<u></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. 50-269
 UNIT NAME Ocone Unit 1
 DATE 10/9/76

REPORT MONTH September, 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
11	76-09-01	F	5.06	B	3	Continuation of previous outage
12	76-09-04	S	26.40	H	1	Control rod repatch
						<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> <p>(2) METHOD 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM</p>

SUMMARY:

Control rod drive power supply malfunction corrected during first monthly outage.

UNIT Oconee Unit 2
DATE 9/9/76
DOCKET NO. 50-270
PREPARED BY L. J. Bare

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1976

GROSS HOURS IN REPORTING PERIOD: 720.00

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY
(MWe-Net): 871

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	<u>714.1</u>	<u>3952.4</u>	<u>12511.5</u>
6. REACTOR RESERVE SHUTDOWN HOURS	_____	_____	_____
7. HOURS GENERATOR ON-LINE	<u>704.9</u>	<u>3793.0</u>	<u>12072.5</u>
8. UNIT RESERVE SHUTDOWN HOURS	_____	_____	_____
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1728522</u>	<u>8985952</u>	<u>28658380</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>594910</u>	<u>3058540</u>	<u>9759096</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>567209</u>	<u>2900005</u>	<u>9255156</u>
12. REACTOR SERVICE FACTOR	<u>99.2</u>	<u>60.1</u>	<u>69.2</u>
13. REACTOR AVAILABILITY FACTOR	<u>100.0</u>	<u>58.2</u>	<u>67.4</u>
14. UNIT SERVICE FACTOR	<u>97.9</u>	<u>57.7</u>	<u>66.8</u>
15. UNIT AVAILABILITY FACTOR	<u>97.9</u>	<u>57.7</u>	<u>66.8</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>90.5</u>	<u>50.6</u>	<u>58.8</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>88.8</u>	<u>49.7</u>	<u>58.8</u>
18. UNIT FORCED OUTAGE RATE	<u>2.1</u>	<u>27.0</u>	<u>25.7</u>
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. 50-270
UNIT Oconee Unit 2
DATE 10/9/76

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1976

**AVERAGE DAILY POWER LEVEL
(MWe-net)**

1	<u>814</u>
2	<u>809</u>
3	<u>816</u>
4	<u>815</u>
5	<u>811</u>
6	<u>806</u>
7	<u>758</u>
8	<u>194</u>
9	<u>738</u>
10	<u>807</u>
11	<u>812</u>
12	<u>816</u>
13	<u>818</u>
14	<u>819</u>
15	<u>819</u>
16	<u>819</u>

**AVERAGE DAILY POWER LEVEL
(MWe-net)**

17	<u>817</u>
18	<u>679</u>
19	<u>776</u>
20	<u>817</u>
21	<u>827</u>
22	<u>826</u>
23	<u>832</u>
24	<u>830</u>
25	<u>831</u>
26	<u>824</u>
27	<u>827</u>
28	<u>826</u>
29	<u>825</u>
30	<u>825</u>
31	<u> </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 10/9/76

REPORT MONTH September, 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
12	76-09-07	F	15.14	B	3	Speed amplifier circuit failure during a scheduled turbine trip test.
<div> <div> (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) </div> <div> (2) METHOD 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM </div> </div>						

SUMMARY:

No major outages this month.

UNIT Oconee Unit 3
DATE 10/9/76
DOCKET NO. 50-287
PREPARED BY L. J. Bare

OPERATING STATUS

1. REPORTING PERIOD: September 1 THROUGH September 30, 1976
GROSS HOURS IN REPORTING PERIOD: 720.00

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2568 NET CAPABILITY
(MWe-Net): 871

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	<u>426.8</u>	<u>4986.5</u>	<u>12130.7</u>
6. REACTOR RESERVE SHUTDOWN HOURS	_____	_____	_____
7. HOURS GENERATOR ON-LINE	<u>422.6</u>	<u>4925.9</u>	<u>11874.6</u>
8. UNIT RESERVE SHUTDOWN HOURS	_____	_____	_____
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>824075</u>	<u>11673683</u>	<u>27591733</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>284340</u>	<u>4022770</u>	<u>9467684</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>267723</u>	<u>3834355</u>	<u>9012789</u>
12. REACTOR SERVICE FACTOR	<u>59.3</u>	<u>75.8</u>	<u>77.2</u>
13. REACTOR AVAILABILITY FACTOR	<u>58.7</u>	<u>75.1</u>	<u>78.6</u>
14. UNIT SERVICE FACTOR	<u>58.7</u>	<u>74.9</u>	<u>75.5</u>
15. UNIT AVAILABILITY FACTOR	<u>58.7</u>	<u>74.9</u>	<u>75.5</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>42.7</u>	<u>67.0</u>	<u>65.8</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>41.9</u>	<u>65.8</u>	<u>64.6</u>
18. UNIT FORCED OUTAGE RATE	<u>.7</u>	<u>19.2</u>	<u>14.8</u>
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)	_____	_____	_____

20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
November 3, 1976

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

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

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

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

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

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

DOCKET NO. 50-287UNIT Oconee Unit 3DATE 10/9/76

AVERAGE DAILY UNIT POWER LEVEL

MONTH September, 1976DAY AVERAGE DAILY POWER LEVEL
(MWe-net)

1	852
2	853
3	850
4	852
5	852
6	836
7	852
8	847
9	849
10	615
11	386
12	323
13	338
14	380
15	375
16	401

DAY AVERAGE DAILY POWER LEVEL
(MWe-net)

17	310
18	423
19	-
20	-
21	-
22	-
23	-
24	-
25	-
26	-
27	-
28	-
29	-
30	-
31	-

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 10/9/76

REPORT MONTH September, 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
10	76-09-17	F	2.95	B	3	Reactor trip during maintenance on Power/Load imbalance runback circuit.
11	76-09-18	S	294.41	C	1	Annual Refueling Outage
						<div> <div>(1) REASON</div> <div> 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) </div> </div> <div> <div>(2) METHOD</div> <div> 1-MANUAL 2-MANUAL SCRAM 3-AUTOMATIC SCRAM </div> </div>

SUMMARY:

Refueling outage proceeding on schedule. Estimated startup date is November 3, 1976.