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MONTHLY REPORT

TO: NRC

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

DATE OF DOCUMENT

2-10-77

DATE RECEIVED

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## DESCRIPTION

LETTER TRANS THE FOLLOWING:

( 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

MIPC

W/4 CYS FOR ACTION

## INTERNAL DISTRIBUTION

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1626 287 MR

DUKE POWER COMPANY

POWER BUILDING

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

Regulatory

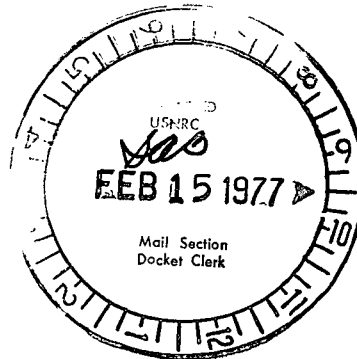
File Cy.

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.

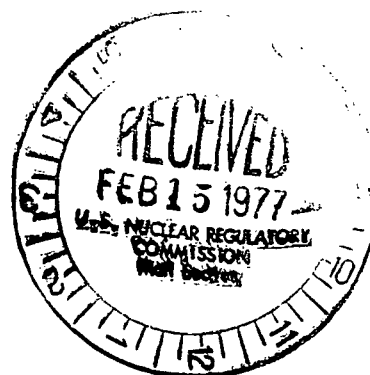
Very truly yours,

*William O. Parker Jr.* WPAH

William O. Parker, Jr.

LJB:ge  
Attachment

cc: Mr. Norman C. Moseley



UNIT Oconee Unit 1  
DATE 2/10/77  
DOCKET NO. 50-269  
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                                 | <u>505.8</u>      | <u>505.8</u>        | <u>22621.6</u>    |
| 6. REACTOR RESERVE SHUTDOWN HOURS   | <u>-</u>          | <u>-</u>            | <u>-</u>          |
| 7. HOURS GENERATOR ON-LINE  | <u>501.1</u>      | <u>501.1</u>        | <u>20465.0</u>    |
| 8. UNIT RESERVE SHUTDOWN HOURS  | <u>-</u>          | <u>-</u>            | <u>-</u>          |
| 9. GROSS THERMAL ENERGY GENERATED (MWH)                                     | <u>1280951</u>    | <u>1280951</u>      | <u>47666662</u>   |
| 10. GROSS ELECTRICAL ENERGY GENERATED (MWH)                                 | <u>436680</u>     | <u>436680</u>       | <u>16560110</u>   |
| 11. NET ELECTRICAL ENERGY GENERATED (MWH)                                   | <u>415314</u>     | <u>415314</u>       | <u>15647847</u>   |
| 12. REACTOR SERVICE FACTOR  | <u>68.0</u>       | <u>68.0</u>         | <u>72.7</u>       |
| 13. REACTOR AVAILABILITY FACTOR   | <u>67.4</u>       | <u>67.4</u>         | <u>68.2</u>       |
| 14. UNIT SERVICE FACTOR   | <u>67.4</u>       | <u>67.4</u>         | <u>65.8</u>       |
| 15. UNIT AVAILABILITY FACTOR  | <u>67.4</u>       | <u>67.4</u>         | <u>65.9</u>       |
| 16. UNIT CAPACITY FACTOR (Using Net Capability)                             | <u>64.9</u>       | <u>64.9</u>         | <u>58.5</u>       |
| 17. UNIT CAPACITY FACTOR (Using Design Mwe)                                 | <u>62.9</u>       | <u>62.9</u>         | <u>56.7</u>       |
| 18. UNIT FORCED OUTAGE RATE   | <u>32.7</u>       | <u>32.7</u>         | <u>18.2</u>       |
| 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:         |                   |                     |                   |

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

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

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

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

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

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

DOCKET NO. 50-269UNIT Oconee Unit 1DATE 2/10/77**AVERAGE DAILY UNIT POWER LEVEL**MONTH January, 1977

AVERAGE DAILY POWER LEVEL (MWe-net)		AVERAGE DAILY POWER LEVEL (MWe-net)	
DAY		DAY	
1	<u>856</u>	17	<u>-</u>
2	<u>852</u>	18	<u>-</u>
3	<u>854</u>	19	<u>-</u>
4	<u>859</u>	20	<u>-</u>
5	<u>861</u>	21	<u>-</u>
6	<u>859</u>	22	<u>-</u>
7	<u>861</u>	23	<u>-</u>
8	<u>867</u>	24	<u>-</u>
9	<u>867</u>	25	<u>-</u>
10	<u>864</u>	26	<u>481</u>
11	<u>866</u>	27	<u>751</u>
12	<u>865</u>	28	<u>845</u>
13	<u>867</u>	29	<u>866</u>
14	<u>863</u>	30	<u>825</u>
15	<u>720</u>	31	<u>859</u>
16	<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 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.
						<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  4-Other </div> </div>

## SUMMARY:

One major outage this month.

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) \_\_\_\_\_

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL	<u>744.0</u>	<u>744.0</u>	<u>14971.0</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>744.0</u>	<u>744.0</u>	<u>14509.54</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1916321</u>	<u>1916321</u>	<u>34682052</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>652990</u>	<u>652990</u>	<u>11808596</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>626360</u>	<u>626360</u>	<u>11210483</u>
12. REACTOR SERVICE FACTOR	<u>100.0</u>	<u>100.0</u>	<u>71.2</u>
13. REACTOR AVAILABILITY FACTOR	<u>100.0</u>	<u>100.0</u>	<u>69.5</u>
14. UNIT SERVICE FACTOR	<u>100.0</u>	<u>100.0</u>	<u>69.0</u>
15. UNIT AVAILABILITY FACTOR	<u>100.0</u>	<u>100.0</u>	<u>69.0</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>97.9</u>	<u>97.9</u>	<u>62.0</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>94.9</u>	<u>94.9</u>	<u>60.1</u>
18. UNIT FORCED OUTAGE RATE	<u>0</u>	<u>0</u>	<u>24.4</u>

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> (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  4-Other </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	<u>744.0</u>	<u>744.0</u>	<u>14146.7</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>744.0</u>	<u>744.0</u>	<u>13767.5</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1940591</u>	<u>1940591</u>	<u>32308808</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>673290</u>	<u>673290</u>	<u>11112734</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>646466</u>	<u>646466</u>	<u>10580108</u>
12. REACTOR SERVICE FACTOR	<u>100.0</u>	<u>100.0</u>	<u>75.8</u>
13. REACTOR AVAILABILITY FACTOR	<u>100.0</u>	<u>100.0</u>	<u>76.4</u>
14. UNIT SERVICE FACTOR	<u>100.0</u>	<u>100.0</u>	<u>73.7</u>
15. UNIT AVAILABILITY FACTOR	<u>100.0</u>	<u>100.0</u>	<u>73.7</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>101.0</u>	<u>101.0</u>	<u>65.9</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>98.0</u>	<u>98.0</u>	<u>63.9</u>
18. UNIT FORCED OUTAGE RATE	<u>0</u>	<u>0</u>	<u>13.3</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. 50-287UNIT Oconee Unit 3DATE 2/10/77**AVERAGE DAILY UNIT POWER LEVEL**MONTH January, 1977

AVERAGE DAILY POWER LEVEL (MWe-net)		AVERAGE DAILY POWER LEVEL (MWe-net)	
DAY		DAY	
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.

DOCKET NO. 50-287

# UNIT SHUTDOWNS

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> <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  4-Other </div> </div>

## SUMMARY:

No outages this month.