

DOCKET NUMBER
50-269/270/287

FILE NUMBER

MONTHLY REPORT

DATE OF DOCUMENT

5/10/77

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TO: N. R. C.

FROM: Duke Power Company
Charlotte, North Carolina
William O. Parker, Jr.

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PROP

INPUT FORM

[illegible]

Letter trans the following:

ENCLOSURE

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

(1-P)

(9-P)

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Oconee Units 1-2-3

RJL

FOR ACTION/INFORMATION

MIPC W/2. CYS FOR ACTION

INTERNAL DISTRIBUTION

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NRC PDR

Branch Chief (L)

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TIC

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CONTROL NUMBER

771340010

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

May 10, 1977

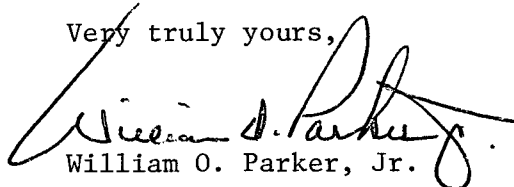
Director
Office of Management Information
and Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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 April, 1977.

Very truly yours,


William O. Parker, Jr.

JAR:vr
Attachment

cc: Mr. Norman C. Moseley



Regulatory

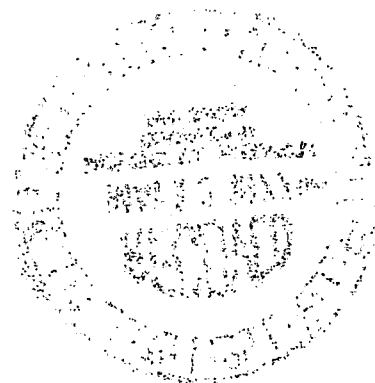
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1977 MAY 13 PM 2 06



UNIT Oconee Unit 1
DATE 5-10-77
DOCKET NO. 50-269
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: April 1 THROUGH April 30, 1977

GROSS HOURS IN REPORTING PERIOD: 719.00

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) _____

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL	<u>645.53</u>	<u>1896.66</u>	<u>24012.46</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>638.36</u>	<u>1868.93</u>	<u>21832.92</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1541075</u>	<u>4606784</u>	<u>50992495</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>533490</u>	<u>1591270</u>	<u>17714700</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>507320</u>	<u>1510016</u>	<u>16742549</u>
12. REACTOR SERVICE FACTOR	<u>89.78</u>	<u>65.88</u>	<u>72.24</u>
13. REACTOR AVAILABILITY FACTOR	<u>99.66</u>	<u>68.87</u>	<u>68.30</u>
14. UNIT SERVICE FACTOR	<u>88.78</u>	<u>64.92</u>	<u>65.68</u>
15. UNIT AVAILABILITY FACTOR	<u>88.78</u>	<u>64.92</u>	<u>65.68</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>82.05</u>	<u>60.99</u>	<u>58.57</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>79.55</u>	<u>59.13</u>	<u>56.79</u>
18. UNIT FORCED OUTAGE RATE	<u>11.22</u>	<u>35.08</u>	<u>19.56</u>

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

Refueling - June 25, 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 5-10-77**AVERAGE DAILY UNIT POWER LEVEL**MONTH April, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	-	17	856
2	-	18	852
3	-	19	852
4	659	20	857
5	822	21	860
6	864	22	859
7	865	23	662
8	864	24	164
9	853	25	406
10	845	26	687
11	849	27	689
12	860	28	832
13	855	29	855
14	862	30	849
15	851	31	
16	849		

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 5-10-77

REPORT MONTH April, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
7	77-04-01	F	66.94	A	1	Continuation of previous outage for repair of turning gear oil pump bearing and inspection of turbine bearing for damage.
8	77-04-03	F	2.46	A	3	Failure in ICS feedwater control module circuitry.
9	77-04-24	F	11.24	A	3	Reheater drain valve failed to open resulting in reheater high level trip.
						<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 major outage this month.

UNIT Oconee Unit 2
DATE 5-10-77
DOCKET NO. 50-270
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: April 1 THROUGH April 30, 1977
GROSS HOURS IN REPORTING PERIOD: 719.00
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) _____
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
7. HOURS GENERATOR ON-LINE	<u>719.00</u>	<u>2876.76</u>	<u>17103.79</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1817333</u>	<u>7177870</u>	<u>39939131</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>615380</u>	<u>2438050</u>	<u>13593656</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>589395</u>	<u>2335557</u>	<u>12919680</u>
12. REACTOR SERVICE FACTOR	<u>100.00</u>	<u>99.92</u>	<u>73.85</u>
13. REACTOR AVAILABILITY FACTOR	<u>100.00</u>	<u>100.00</u>	<u>72.33</u>
14. UNIT SERVICE FACTOR	<u>100.00</u>	<u>99.75</u>	<u>71.84</u>
15. UNIT AVAILABILITY FACTOR	<u>100.00</u>	<u>99.75</u>	<u>71.84</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>95.32</u>	<u>94.33</u>	<u>64.87</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>92.42</u>	<u>91.46</u>	<u>62.89</u>
18. UNIT FORCED OUTAGE RATE	<u>0</u>	<u>00.25</u>	<u>21.99</u>
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
Hydraulic Suppressor Inspection and CRD Stator Repair - May 20, 1977-- 1 week
Refueling - August 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. 50-270
UNIT Oconee Unit 2
DATE 5-10-77

AVERAGE DAILY UNIT POWER LEVEL

MONTH April, 1977

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

1	<u>827</u>
2	<u>825</u>
3	<u>824</u>
4	<u>824</u>
5	<u>822</u>
6	<u>824</u>
7	<u>826</u>
8	<u>831</u>
9	<u>829</u>
10	<u>829</u>
11	<u>827</u>
12	<u>826</u>
13	<u>821</u>
14	<u>822</u>
15	<u>824</u>
16	<u>828</u>

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

17	<u>830</u>
18	<u>830</u>
19	<u>830</u>
20	<u>829</u>
21	<u>829</u>
22	<u>766</u>
23	<u>731</u>
24	<u>756</u>
25	<u>825</u>
26	<u>825</u>
27	<u>827</u>
28	<u>832</u>
29	<u>815</u>
30	<u>827</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 5-10-77

REPORT MONTH April, 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.

UNIT Oconee Unit 3
DATE 5-10-77
DOCKET NO. 50-287
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: April 1 THROUGH April 30, 1977

GROSS HOURS IN REPORTING PERIOD: 719.00

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) _____

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL	<u>713.45</u>	<u>2624.77</u>	<u>16027.47</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>706.79</u>	<u>2602.84</u>	<u>15626.34</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1748484</u>	<u>6558930</u>	<u>36927146</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>613270</u>	<u>2296190</u>	<u>12735634</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>586535</u>	<u>2196985</u>	<u>12130627</u>
12. REACTOR SERVICE FACTOR	<u>99.23</u>	<u>91.17</u>	<u>77.03</u>
13. REACTOR AVAILABILITY FACTOR	<u>98.30</u>	<u>90.59</u>	<u>77.48</u>
14. UNIT SERVICE FACTOR	<u>98.30</u>	<u>90.41</u>	<u>75.10</u>
15. UNIT AVAILABILITY FACTOR	<u>98.30</u>	<u>90.41</u>	<u>75.10</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>94.86</u>	<u>88.73</u>	<u>67.79</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>91.97</u>	<u>86.03</u>	<u>65.73</u>
18. UNIT FORCED OUTAGE RATE	<u>1.70</u>	<u>9.59</u>	<u>13.27</u>

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

Refueling - September 23, 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. 50-287UNIT Oconee Unit 3DATE 5-10-77**AVERAGE DAILY UNIT POWER LEVEL**MONTH April, 1977**DAY** **AVERAGE DAILY POWER LEVEL**
 (MWe-net)

1	<u>865</u>
2	<u>869</u>
3	<u>840</u>
4	<u>864</u>
5	<u>854</u>
6	<u>682</u>
7	<u>589</u>
8	<u>838</u>
9	<u>860</u>
10	<u>849</u>
11	<u>851</u>
12	<u>870</u>
13	<u>442</u>
14	<u>776</u>
15	<u>848</u>
16	<u>843</u>

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

17	<u>863</u>
18	<u>863</u>
19	<u>854</u>
20	<u>831</u>
21	<u>839</u>
22	<u>840</u>
23	<u>838</u>
24	<u>802</u>
25	<u>848</u>
26	<u>835</u>
27	<u>826</u>
28	<u>809</u>
29	<u>817</u>
30	<u>836</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. 50-287

UNIT NAME Oconee Unit 3

DATE 5-10-77

REPORT MONTH April, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
4	77-04-07	F	6.10	A	3	Momentary loss of 125V DC power to the turbine control system. RC pumps tripped during the power supply transfer to the startup source.
5	77-04-14	F	6.11	A	3	Spurious reactor power/flow trip.
						<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 major outages this month.