

50-269/270/287

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FILE NUMBER

MONTHLY REPORT

TO:
N. R. C.

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

DATE OF DOCUMENT
7/11/77

DATE RECEIVED
7/15/77

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DESCRIPTION

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(1-P)

ENCLOSURE

Monthly Report for JUNE 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 7/18/77

1 CY ENCL Rec'd

FOR ACTION/INFORMATION

MIPC W/2 CYS FOR ACTION

INTERNAL DISTRIBUTION

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LPDR: WAHALLA, S.C.
TIC
NSIC

WSP
RPT
771990240

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

July 11, 1977

TELEPHONE: AREA 704
373-4083

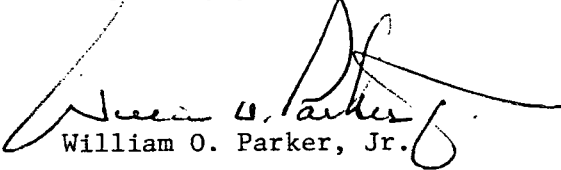
Director
Office of Management Information
and Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

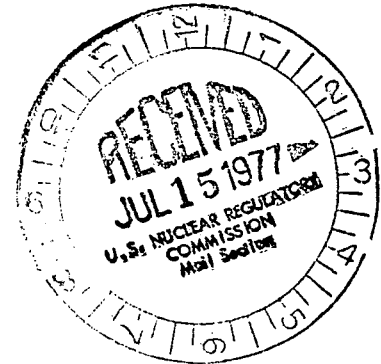
Please find attached information concerning the performance and operating status of the Oconee Nuclear Station for the month of June, 1977.

Very truly yours,


William O. Parker, Jr.

JWS:ge
Attachment

cc: Mr. Norman C. Moseley



771990240

UNIT Oconee Unit 1
DATE 7/8/77
DOCKET NO. 50-269
PREPARED BY J. W. Simmons

OPERATING STATUS

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

GROSS HOURS IN REPORTING PERIOD: 720.00

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>718.32</u>	<u>2980.28</u>	<u>25096.08</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>707.11</u>	<u>2933.78</u>	<u>22897.77</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1768565</u>	<u>7136811</u>	<u>53522522</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>602090</u>	<u>2454150</u>	<u>18577580</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>573889</u>	<u>2327328</u>	<u>17559861</u>
12. REACTOR SERVICE FACTOR	<u>99.77</u>	<u>68.62</u>	<u>72.31</u>
13. REACTOR AVAILABILITY FACTOR	<u>100.00</u>	<u>70.56</u>	<u>68.54</u>
14. UNIT SERVICE FACTOR	<u>98.21</u>	<u>67.55</u>	<u>65.98</u>
15. UNIT AVAILABILITY FACTOR	<u>98.21</u>	<u>67.55</u>	<u>66.07</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>92.68</u>	<u>62.31</u>	<u>58.84</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>89.86</u>	<u>60.41</u>	<u>57.05</u>
18. UNIT FORCED OUTAGE RATE	<u>1.79</u>	<u>32.45</u>	<u>19.95</u>

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

Refueling - July 30 - 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. 50-269
 UNIT Oconee Unit 1
 DATE 7/8/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH June, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	763	17	853
2	765	18	853
3	767	19	853
4	793	20	850
5	812	21	849
6	271	22	848
7	370	23	851
8	702	24	851
9	804	25	850
10	846	26	847
11	848	27	847
12	853	28	852
13	853	29	851
14	853	30	850
15	852	31	
16	855		

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 7/8/77

REPORT MONTH June, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
11	77-06-06	F	12.16	H	3	Turbine shaft oil pump trip caused by technician error.
12	77-06-06	F	.73	A	3	Turbine trip. Investigation could show no reason for 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:

No major outage this month.

UNIT Oconee Unit 2
 DATE 7/8/77
 DOCKET NO. 50-270
 PREPARED BY J. W. Simmons

OPERATING STATUS

1. REPORTING PERIOD: June 1 THROUGH June 30, 1977
 GROSS HOURS IN REPORTING PERIOD: 720.00
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
6. REACTOR RESERVE SHUTDOWN HOURS
7. HOURS GENERATOR ON-LINE
8. UNIT RESERVE SHUTDOWN HOURS
9. GROSS THERMAL ENERGY GENERATED (MWH)
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)
11. NET ELECTRICAL ENERGY GENERATED (MWH)
12. REACTOR SERVICE FACTOR
13. REACTOR AVAILABILITY FACTOR
14. UNIT SERVICE FACTOR
15. UNIT AVAILABILITY FACTOR
16. UNIT CAPACITY FACTOR (Using Net Capability)
17. UNIT CAPACITY FACTOR (Using Design Mwe)
18. UNIT FORCED OUTAGE RATE
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
20. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
July 26, 1977

	<u>This Month</u>	<u>Year to Date</u>	<u>Cumulative</u>
5. NUMBER OF HOURS THE REACTOR WAS CRITICAL	- 0 -	3548.67	17775.70
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	- 0 -	3539.47	17305.01
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	- 0 -	8864517	41625779
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	- 0 -	3007570	14163176
11. NET ELECTRICAL ENERGY GENERATED (MWH)	(2065)	2877043	13461166
12. REACTOR SERVICE FACTOR	- 0 -	81.71	72.19
13. REACTOR AVAILABILITY FACTOR	- 0 -	81.67	70.74
14. UNIT SERVICE FACTOR	- 0 -	81.50	70.28
15. UNIT AVAILABILITY FACTOR	- 0 -	81.50	70.28
16. UNIT CAPACITY FACTOR (Using Net Capability)	- 0 -	77.03	63.57
17. UNIT CAPACITY FACTOR (Using Design Mwe)	- 0 -	74.68	61.63
18. UNIT FORCED OUTAGE RATE	- 0 -	2.31	21.59

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

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

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

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

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

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

DOCKET NO. 50-270

UNIT Oconee Unit 2

DATE 7/8/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH June, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	<u>-</u>	17	<u>-</u>
2	<u>-</u>	18	<u>-</u>
3	<u>-</u>	19	<u>-</u>
4	<u>-</u>	20	<u>-</u>
5	<u>-</u>	21	<u>-</u>
6	<u>-</u>	22	<u>-</u>
7	<u>-</u>	23	<u>-</u>
8	<u>-</u>	24	<u>-</u>
9	<u>-</u>	25	<u>-</u>
10	<u>-</u>	26	<u>-</u>
11	<u>-</u>	27	<u>-</u>
12	<u>-</u>	28	<u>-</u>
13	<u>-</u>	29	<u>-</u>
14	<u>-</u>	30	<u>-</u>
15	<u>-</u>	31	<u>-</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. 50-270
 UNIT NAME Oconee Unit 2
 DATE 7/8/77

REPORT MONTH June, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
2	77-06-01	S	720	C	1	Refueling outage continuation. (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:

Refueling

UNIT Oconee Unit 3
 DATE 7/8/77
 DOCKET NO. 50-287
 PREPARED BY J. W. Simmons

OPERATING STATUS

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

GROSS HOURS IN REPORTING PERIOD: 720.00

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>333.30</u>	<u>3702.07</u>	<u>17104.77</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>328.87</u>	<u>3675.71</u>	<u>16699.21</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>772444</u>	<u>9255488</u>	<u>39623705</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>267800</u>	<u>3226500</u>	<u>13665944</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>251187</u>	<u>3081776</u>	<u>13015418</u>
12. REACTOR SERVICE FACTOR	<u>46.29</u>	<u>85.24</u>	<u>76.80</u>
13. REACTOR AVAILABILITY FACTOR	<u>45.68</u>	<u>84.75</u>	<u>77.21</u>
14. UNIT SERVICE FACTOR	<u>45.68</u>	<u>84.64</u>	<u>74.98</u>
15. UNIT AVAILABILITY FACTOR	<u>45.68</u>	<u>84.64</u>	<u>74.98</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>40.57</u>	<u>82.51</u>	<u>67.95</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>39.33</u>	<u>80.00</u>	<u>65.89</u>
18. UNIT FORCED OUTAGE RATE	<u>54.32</u>	<u>15.36</u>	<u>14.28</u>

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
 Refueling - September - 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. 50-287

UNIT Oconee Unit 3

DATE 7/8/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH June, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	841	17	-
2	804	18	-
3	832	19	-
4	833	20	-
5	839	21	-
6	840	22	-
7	837	23	-
8	838	24	-
9	816	25	-
10	677	26	-
11	-	27	299
12	-	28	637
13	-	29	757
14	-	30	771
15	-	31	-
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 SHUTDOWNS

DOCKET NO. 50-287
 UNIT NAME Oconee Unit 3
 DATE 7/8/77

REPORT MONTH June, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
6	77-06-10	F	212.52	A	1	OTSG - "3B" tube leak
7	77-06-19	F	178.61	A	1	Low oil level on reactor coolant pump.

(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.