

50-259/270/287

FILE NUMBER

MONTHLY REPORT

FROM:

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

DATE OF DOCUMENT
8/10/77

DATE RECEIVED
8/15/77

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ENCLOSURE

Monthly Report for JULY 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 8/15/77

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DUKE POWER COMPANY

Regulatory

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POWER BUILDING

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

August 10, 1977

TELEPHONE: AREA 704
373-4083

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

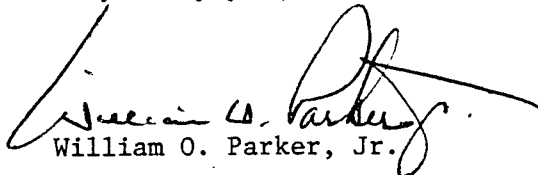
RE: Oconee Nuclear Station
Docket Nos. 50-269, 270, 287



Dear Sir:

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

Very truly yours,


William O. Parker, Jr.

JAR:ge
Attachment

cc: Mr. Norman C. Moseley

772270099

UNIT Oconee Unit 1
 DATE 8/10/77
 DOCKET NO. 50-269
 PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: July 1 THROUGH July 31, 1977
 GROSS HOURS IN REPORTING PERIOD: 744
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

	This Month	Year to Date	Cumulative
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	733.78	3667.56	23631.55
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1511447	8648258	55033969
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	531540	2985690	19109120
11. NET ELECTRICAL ENERGY GENERATED (MWH)	502892	2830220	18062753
12. REACTOR SERVICE FACTOR	100.00	73.21	72.90
13. REACTOR AVAILABILITY FACTOR	98.63	74.67	69.17
14. UNIT SERVICE FACTOR	98.63	72.10	66.67
15. UNIT AVAILABILITY FACTOR	98.63	72.10	66.75
16. UNIT CAPACITY FACTOR (Using Net Capability)	78.60	64.69	59.25
17. UNIT CAPACITY FACTOR (Using Design Mwe)	76.20	62.72	57.45
18. UNIT FORCED OUTAGE RATE	1.37	27.90	19.48
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
 Refueling - August 6, 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 8/10/77**AVERAGE DAILY UNIT POWER LEVEL**MONTH July, 1977**DAY** **AVERAGE DAILY POWER LEVEL**
 (MWe-net)

1	849
2	854
3	853
4	853
5	188
6	419
7	448
8	448
9	448
10	450
11	458
12	643
13	705
14	726
15	726
16	729

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

17	728
18	727
19	727
20	727
21	739
22	756
23	757
24	758
25	757
26	755
27	754
28	755
29	755
30	742
31	720

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 8/10/77

REPORT MONTH July, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
13	77-07-05	F	10.22	A	N/A	Unit taken off-line to repair leaking coolant storage valve on bleed transfer pump.
<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.

UNIT Oconee Unit 2
 DATE 8/10/77
 DOCKET NO. 50-270
 PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: July 1 THROUGH July 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>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
7. HOURS GENERATOR ON-LINE	<u>-0-</u>	<u>3539.47</u>	<u>17305.01</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>-</u>	<u>-</u>	<u>-</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>-0-</u>	<u>8864517</u>	<u>41625779</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>-0-</u>	<u>3007570</u>	<u>14163176</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>(2901)</u>	<u>2874142</u>	<u>13458265</u>
12. REACTOR SERVICE FACTOR	<u>-0-</u>	<u>69.76</u>	<u>70.07</u>
13. REACTOR AVAILABILITY FACTOR	<u>-0-</u>	<u>69.72</u>	<u>68.66</u>
14. UNIT SERVICE FACTOR	<u>-0-</u>	<u>69.58</u>	<u>68.22</u>
15. UNIT AVAILABILITY FACTOR	<u>-0-</u>	<u>69.58</u>	<u>68.22</u>
16. UNIT CAPACITY FACTOR (Using Net Capability)	<u>-0-</u>	<u>65.70</u>	<u>61.69</u>
17. UNIT CAPACITY FACTOR (Using Design Mwe)	<u>-0-</u>	<u>63.70</u>	<u>59.81</u>
18. UNIT FORCED OUTAGE RATE	<u>-0-</u>	<u>2.31</u>	<u>21.59</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:
August 11, 1977

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

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

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

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

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

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

DOCKET NO. 50-270

UNIT Oconee Unit 2

DATE 8/10/77

AVERAGE DAILY UNIT POWER LEVEL

MONTH July, 1977

DAY	AVERAGE DAILY POWER LEVEL (MWe-net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-net)
1	-	17	-
2	-	18	-
3	-	19	-
4	-	20	-
5	-	21	-
6	-	22	-
7	-	23	-
8	-	24	-
9	-	25	-
10	-	26	-
11	-	27	-
12	-	28	-
13	-	29	-
14	-	30	-
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. 50-270

UNIT NAME Ocone Unit 2

DATE 8/10/77

REPORT MONTH July, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
2	77-07-01	S	384	C	1	Refueling
3	77-07-17	S	360	B		Maintenance on once-through steam generator.
						<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:

Refueling completed this month.

UNIT Oconee Unit 3
DATE 8/10/77
DOCKET NO. 50-287
PREPARED BY J. A. Reavis

OPERATING STATUS

1. REPORTING PERIOD: July 1 THROUGH July 31, 1977
GROSS HOURS IN REPORTING PERIOD: 744.00
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

	This Month	Year to Date	Cumulative
6. REACTOR RESERVE SHUTDOWN HOURS	-	-	-
7. HOURS GENERATOR ON-LINE	451.72	4127.43	17150.93
8. UNIT RESERVE SHUTDOWN HOURS	-	-	-
9. GROSS THERMAL ENERGY GENERATED (MWH)	1011241	10266729	40634946
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	349640	3576140	14015584
11. NET ELECTRICAL ENERGY GENERATED (MWH)	329750	3411526	13345168
12. REACTOR SERVICE FACTOR	62.95	81.98	76.35
13. REACTOR AVAILABILITY FACTOR	60.72	81.24	76.67
14. UNIT SERVICE FACTOR	60.72	81.14	74.52
15. UNIT AVAILABILITY FACTOR	60.72	81.14	74.52
16. UNIT CAPACITY FACTOR (Using Net Capability)	51.54	77.98	67.42
17. UNIT CAPACITY FACTOR (Using Design Mwe)	49.97	75.61	65.37
18. UNIT FORCED OUTAGE RATE	39.28	18.86	15.20
19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE & DURATION OF EACH:)
Refueling - October 30, 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 8/10/77**AVERAGE DAILY UNIT POWER LEVEL**MONTH July, 1977**DAY** **AVERAGE DAILY POWER LEVEL**
 (MWe-net)

1	842
2	856
3	851
4	850
5	858
6	858
7	744
8	778
9	806
10	811
11	817
12	825
13	836
14	720
15	-
16	-

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

17	-
18	-
19	-
20	-
21	-
22	-
23	-
24	-
25	-
26	-
27	390
28	468
29	468
30	474
31	606

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 8/10/77

REPORT MONTH July, 1977

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
8	77-07-14	F	292.28	A	1	<p>Tube leak on "3B" once-through steam generator.</p> <div> <div> <p>(1) REASON</p> <p>A-EQUIPMENT FAILURE (EXPLAIN)</p> <p>B-MAINT. OR TEST.</p> <p>C-REFUELING</p> <p>D-REGULATORY RESTRICTION</p> <p>E-OPERATOR TRAINING AND LICENSE EXAMINATION</p> <p>F-ADMINISTRATIVE</p> <p>G-OPERATIONAL ERROR (EXPLAIN)</p> <p>H-OTHER (EXPLAIN)</p> </div> <div> <p>(2) METHOD</p> <p>1-MANUAL</p> <p>2-MANUAL SCRAM</p> <p>3-AUTOMATIC SCRAM</p> <p>4-Other</p> </div> </div>

SUMMARY:

One major outage this month.