

# CP&L

Carolina Power & Light Company

Brunswick Nuclear Project  
P. O. Box 10429  
Southport, NC 28461-0429

November 4, 1990

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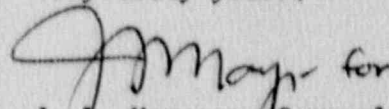
U.S. Nuclear Regulatory Commission  
Washington, DC 20555  
Attn: Document Control Desk

BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2  
DOCKET NOS. 50-325 AND 50-324  
LICENSE NOS. DPR-71 AND DPR-62  
MONTHLY OPERATING REPORT

Gentlemen:

In accordance with Technical Specification 6.9.1.11 for the Brunswick Steam Electric Plant, Units 1 and 2, Carolina Power & Light Company herewith submits the report of operating statistics and shutdown experience for the month of October 1990.

Very truly yours,



J. L. Harness, General Manager  
Brunswick Nuclear Project

RDR/ah  
90-0041.MSC

Enclosures

cc: Ms. D. M. Aslett  
Mr. T. C. Bell  
Mr. R. M. Coats  
Mr. S. D. Ebnetter  
Mr. M. D. Hill  
Mr. N. B. Le  
Mr. W. R. Murray  
Mr. R. G. Oehl  
Mr. R. L. Prevatte  
Mr. R. B. Starkey  
INPO

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RUN DATE 11/06/90  
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PLANT PERFORMANCE DATA SYSTEM  
APPENDIX B - AVERAGE DAILY POWER LEVEL  
BRUNSWICK UNIT 1

PAGE 1  
RPD.59-000

DOCKET NO. 050-0325  
COMPLETED BY RONALD RUMPLE  
TELEPHONE (919)457-2752

OCTOBER 1990

DAY	AVG. DAILY POWER LEVEL (MWE-NET)	DAY	AVG. DAILY POWER LEVEL (MWE-NET)
1	-9	17	-4
2	-9	18	-5
3	-9	19	-5
4	-9	20	-5
5	-7	21	-5
6	-5	22	-5
7	-5	23	-5
8	-5	24	-5
9	-5	25	-5
10	-5	26	-5
11	-4	27	-5
12	-5	28	-5
13	-4	29	-4
14	-5	30	-4
15	-4	31	-4
16	-4		

CP&L CO  
 RUN DATE 11/06/90  
 RUN TIME 14:22:22

PLANT PERFORMANCE DATA SYSTEM  
 OPERATING DATA REPORT  
 BRUNSWICK UNIT 1

PAGE 1  
 KPD36-000

DOCKET NO. 050-0325  
 COMPLETED BY RONALD RUMPLE  
 TELEPHONE (919)457-2752

OPERATING STATUS

- |   | NOTES |
|---|-------|
| 1. UNIT NAME: BRUNSWICK UNIT 1  |       |
| 2. REPORTING PERIOD: OCTOBER 90   |       |
| 3. LICENSED THERMAL POWER (MWT): 2436   |       |
| 4. NAMEPLATE RATING (GROSS MWE): 867.0  |       |
| 5. DESIGN ELECTRICAL RATING (NET MWE): 821.0  |       |
| 6. MAX DEPENDABLE CAPACITY (GROSS MWE): 815.0   |       |
| 7. MAX DEPENDABLE CAPACITY (NET MWE): 790.0   |       |
| 8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THRU 7) SINCE LAST REPORT, GIVE REASONS: |       |

9. POWER LEVEL TO WHICH RESTRICTED IF ANY (NET MWE):  
 10. REASONS FOR RESTRICTION IF ANY:

	THIS MONTH	YR TO DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	745.00	7296.00	119424.00
12. NUMBER OF HOURS REACTOR CRITICAL	.00	5948.25	79302.16
13. REACTOR RESERVE SHUTDOWN HRS	.00	.00	1647.10
14. HOURS GENERATOR ON LINE	.00	5910.20	75863.24
15. UNIT RESERVE SHUTDOWN HOURS	.00	.00	.00
16. GROSS THERMAL ENERGY GEN. (MWH)	.00	13728130.62	163197643.18
17. GROSS ELEC. ENERGY GEN. (MWH)	.00	4471445.00	53533475.00
18. NET ELEC. ENERGY GENERATED (MWH)	-3886.00	4326910.00	51508058.00
19. UNIT SERVICE FACTOR	.00	81.01	63.52
20. UNIT AVAILABILITY FACTOR	.00	81.01	63.52
21. UNIT CAP. FACTOR (USING MDC NET)	-.66	75.07	54.60
22. UNIT CAP. FACTOR (USING DER NET)	-.64	72.24	52.53
23. UNIT FORCED OUTAGE RATE	.00	8.47	15.04
24. SHUTDOWNS SCHED. OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP: 02/20/91  
 26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORECAST ACHIEVED

INITIAL CRITICALITY	-----	-----
INITIAL ELECTRICITY	-----	-----
COMMERCIAL OPERATION	-----	-----

DOCKET NO.: 050-0325  
UNIT: Brunswick 1  
DATE: Nov. 1990  
COMPLETED BY: Ronald Rumble

OPERATIONS SUMMARY  
BRUNSWICK UNIT 1

There are no fuel bundles in the reactor core.

There are 1490 BWR and 160 PWR spent fuel bundles in the fuel pool.

There are 112 new fuel bundles in the new fuel storage vault.

Unit 1 shut down on September 27, 1990, for a Refuel/Maintenance outage.

DOCKET NO. 050-0325  
 UNIT NAME Brunswick 1  
 DATE Nov. 1990  
 COMPLETED BY Ronald Rumble  
 TELEPHONE 919-457-2752

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH October 1990

NO.	DATE	TYPE 1	DURATION (HOURS)	REASON 2	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE 4	COMPONENT CODE 5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
90-069	900927	S	745.0 (in progress)	C	4		RC	Fuel XX	Refuel/Maintenance Outage

1: F - Forced  
 S - Scheduled

2: REASON  
 A - Equipment failure (explain)  
 B - Maintenance or test  
 C - Refueling  
 D - Regulatory restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational error (explain)  
 H - Other (explain)

3: METHOD  
 1 - Manual  
 2 - Manual scram  
 3 - Automatic scram  
 4 - Continuations  
 5 - Load reductions  
 6 - Other

4: EXHIBIT G -  
 Instructions for preparation of data entry sheets for Licensee Event Report (LER) file (NUREG-0161)

5: EXHIBIT I -  
 Same source

CP&L CO  
RUN DATE 11/06/90  
RUN TIME 14:22:20

PLANT PERFORMANCE DATA SYSTEM  
APPENDIX B - AVERAGE DAILY POWER LEVEL  
BRUNSWICK UNIT 2

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RPD39-006

DOCKET NO. 050-0324  
COMPLETED BY RONALD RUMPLE  
TELEPHONE (919)457-2752

OCTOBER 1990

DAY	AVG. DAILY POWER LEVEL (MWE-NET)	DAY	AVG. DAILY POWER LEVEL (MWE-NET)
1	-8	17	-16
2	534	18	-17
3	756	19	122
4	762	20	704
5	761	21	608
6	764	22	765
7	711	23	765
8	585	24	765
9	760	25	762
10	762	26	769
11	762	27	770
12	439	28	752
13	-17	29	771
14	-16	30	772
15	-16	31	771
16	-15		

CP&L CO  
 RUN DATE 11/06/90  
 RUN TIME 14:22:22

PLANT PERFORMANCE DATA SYSTEM  
 OPERATING DATA REPORT  
 BRUNSWICK UNIT 2

PAGE 2  
 RFD36-000

DOCKET NO. 050-0324  
 COMPLETED BY RONALD RUMPLE  
 TELEPHONE (919)457-2752

OPERATING STATUS

- |   | NOTES |
|---|-------|
| 1. UNIT NAME: BRUNSWICK UNIT 2  |       |
| 2. REPORTING PERIOD: OCTOBER 90   |       |
| 3. LICENSED THERMAL POWER (MWT): 2436   |       |
| 4. NAMEPLATE RATING (GROSS MWE): 867.0  |       |
| 5. DESIGN ELECTRICAL RATING (NET MWE): 821.0  |       |
| 6. MAX DEPENDABLE CAPACITY (GROSS MWE): 815.0   |       |
| 7. MAX DEPENDABLE CAPACITY (NET MWE): 790.0   |       |
| 8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THRU 7) SINCE LAST REPORT, GIVE REASONS: |       |

9. POWER LEVEL TO WHICH RESTRICTED IF ANY (NET MWE):  
 10. REASONS FOR RESTRICTION IF ANY:

	THIS MONTH	YR TO DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	745.00	7296.00	131448.00
12. NUMBER OF HOURS REACTOR CRITICAL	612.33	4462.70	83012.81
13. REACTOR RESERVE SHUTDOWN HRS	.00	.00	.00
14. HOURS GENERATOR ON LINE	553.40	4154.92	78528.26
15. UNIT RESERVE SHUTDOWN HOURS	.00	.00	.00
16. GROSS THERMAL ENERGY GEN. (MWH)	1280209.59	9525457.67	164612852.03
17. GROSS ELEC. ENERGY GEN. (MWH)	414881.00	3058368.00	53240524.00
18. NET ELEC. ENERGY GENERATED (MWH)	398905.00	2935445.00	51034850.00
19. UNIT SERVICE FACTOR	74.28	56.95	59.74
20. UNIT AVAILABILITY FACTOR	74.28	56.95	59.74
21. UNIT CAP. FACTOR (USING MDC NET)	67.78	50.93	49.15
22. UNIT CAP. FACTOR (USING DER NET)	65.22	49.01	47.29
23. UNIT FORCED OUTAGE RATE	25.72	22.93	13.24
24. SHUTDOWNS SCHED. OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP:  
 26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORECAST ACHIEVED

INITIAL CRITICALITY	-----	-----
INITIAL ELECTRICITY	-----	-----
COMMERCIAL OPERATION	-----	-----

DOCKET NO.: 050-0324  
UNIT: Brunswick 2  
DATE: Nov. 1990  
COMPLETED BY: Ronald Rumble

OPERATIONS SUMMARY  
BRUNSWICK UNIT 2

There are 560 fuel bundles in the reactor core.

There are 1072 BWR and 144 PWR spent fuel bundles in the fuel pool.

There are no new fuel bundles in the new fuel storage vault.

Unit 2 had two reportable power reductions and one reactor trip.



DOCKET NO. 050-0324  
 UNIT NAME Brunswick 2  
 DATE Nov. 1990  
 COMPLETED BY Ronald Rumble  
 TELEPHONE 919-457-2752

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH October 1990

NO.	DATE	TYPE 1	DURATION (HOURS)	REASON 2	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE 4	COMPONENT CODE 5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
90-069	900927	F	22.18 (total duration of event was 109.68 hours)	A	4	2-90-15			Reactor scrammed due to instability in the voltage regulator circuitry. The voltage regulator was driven to an unstable region due to distribution system conditions.  Fine tuned the voltage regulator to prevent recurrence.

1: F - Forced  
 S - Scheduled

2: REASON  
 A - Equipment failure (explain)  
 B - Maintenance or test  
 C - Refueling  
 D - Regulatory restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational error (explain)  
 H - Other (explain)

3: METHOD  
 1 - Manual  
 2 - Manual scram  
 3 - Automatic scram  
 4 - Continuations  
 5 - Load reductions  
 6 - Other

4: EXHIBIT G -  
 Instructions for preparation of data entry sheets for Licensee Event Report (LER) file (NUREG-0161)

5: EXHIBIT I -  
 Same source

DOCKET NO. 050-0324  
 UNIT NAME Brunswick 2  
 DATE Nov. 1990  
 COMPLETED BY Ronald Rumble  
 TELEPHONE 919-457-2752

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH October 1990

NO.	DATE	TYPE 1	DURATION (HOURS)	REASON 2	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE 4	COMPONENT CODE 5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
90-075	901008	F		A	5				Diesel Generator #4 failed to start. Replaced defective run-control relay.

1: F - Forced  
 S - Scheduled

2: REASON  
 A - Equipment failure (explain)  
 B - Maintenance or test  
 C - Refueling  
 D - Regulatory restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational error (explain)  
 H - Other (explain)

3: METHOD  
 1 - Manual  
 2 - Manual scram  
 3 - Automatic scram  
 4 - Continuations  
 5 - Load reductions  
 6 - Other

4: EXHIBIT G -  
 Instructions for preparation of data entry sheets for Licensee Event Report (LER) file (WUREG-0161)

5: EXHIBIT I -  
 Same source

DOCKET NO. 050-0324  
 UNIT NAME Brunswick 2  
 DATE Nov. 1990  
 COMPLETED BY Ronald Rumble  
 TELEPHONE 919-457-2752

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH October 1990

NO.	DATE	TYPE 1	DURATION (HOURS)	REASON 2	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE 4	COMPONENT CODE 5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
90-076	901012	F	169.42	A	3	2-90-16			Reactor scrammed due to blown fuse in feedwater level control system.

1: F - Forced  
 S - Scheduled

2: REASON  
 A - Equipment failure (explain)  
 B - Maintenance or test  
 C - Refueling  
 D - Regulatory restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational error (explain)  
 H - Other (explain)

3: METHOD  
 1 - Manual  
 2 - Manual scram  
 3 - Automatic scram  
 4 - Continuations  
 5 - Load reductions  
 6 - Other

4: EXHIBIT G -  
 Instructions for preparation of data entry sheets for Licensee Event Report (LER) file (NUREG-0161)

5: EXHIBIT I -  
 Same source

DOCKET NO. 050-0324  
 UNIT NAME Brunswick 2  
 DATE Nov. 1990  
 COMPLETED BY Ronald Ruple  
 TELEPHONE 919-457-2752

UNIT SHUTDOWNS AND POWER REDUCTIONS  
 REPORT MONTH October 1990

NO.	DATE	TYPE 1	DURATION (HOURS)	REASON 2	NUMBER OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE 4	COMPONENT CODE 5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
90-079	901020	F		A	5				Loss of EMC 125 VDC power transfer relay. Replaced relay.

1: F - Forced  
 S - Scheduled

2: REASON  
 A - Equipment failure (explain)  
 B - Maintenance or test  
 C - Refueling  
 D - Regulatory restriction  
 E - Operator Training & License Examination  
 F - Administrative  
 G - Operational error (explain)  
 H - Other (explain)

3: METHOD  
 1 - Manual  
 2 - Manual scram  
 3 - Automatic scram  
 4 - Continuations  
 5 - Load reductions  
 6 - Other

4: EXHIBIT G -  
 Instructions for preparation of data entry sheets for Licensee Event Report (LER) file (NUREG-7161)

5: EXHIBIT I -  
 Same source