

OPERATING DATA REPORT

UNIT NO. 79-1324

DATE 11/01/79

COMPLETED BY J. L. L. L.

TELEPHONE 714-457-5531

OPERATING STATUS

1. UNIT NAME: BRUNSWICK UNIT 2
2. REPORTING PERIOD: OCTOBER 79
3. LICENSED THERMAL POWER (MW): 2435
4. NAMEPLATE RATING (GROSS MWE): 367.0
5. DESIGN ELECTRICAL RATING (NET MWE): 321.0
6. MAX DEPENDABLE CAPACITY (GROSS MWE): 315.0
7. MAX DEPENDABLE CAPACITY (NET MWE): 290.0
8. IF CHANGES OCCUR IN CAPACITY RATINGS (ITEMS 3 THRU 7) SINCE LAST REPORT, GIVE REASONS:

1. NOTES

9. POWER LEVEL TO WHICH RESTRICTED IF ANY (NET MWE): NONE
10. REASONS FOR RESTRICTION IF ANY:

POOR
ORIGINAL

	UNIT	DATE	STATUS
11. HOURS IN REPORTING PERIOD	745.0	729.0	46017.0
12. NUMBER OF HOURS REACTOR WAS CRITICAL	745.0	474.6	24031.6
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
14. HOURS GENERATOR ON LINE	745.0	447.2	22625.0
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MMBtu)	1561066.0	6618717.5	40446551.4
17. GROSS ELECTRICAL ENERGY GENERATED (MMBtu)	531770.0	237245.0	1344772.0
18. NET ELECTRICAL ENERGY GENERATED (MMBtu)	515495.0	275545.0	1311307.0
19. UNIT SERVICE FACTOR	100.0	61.4	64.6
20. UNIT AVAILABILITY FACTOR	100.0	61.4	64.6
21. UNIT CAPACITY FACTOR (USING MDC NET)	67.6	47.0	47.6
22. UNIT CAPACITY FACTOR (USING DER NET)	64.3	44.0	45.7
23. UNIT FORCED OUTAGE RATE	0.0	0.0	13.4
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			

Relief Valve Modification 79 12 26 120 hours

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP: 01/01/80
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): NONE ACHIEVED

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

1.15 - 2

1329 292

79111140 269

POOR
ORIGINAL

APPENDIX B
AVERAGE DAILY POWER LEVEL

PROJECT NO. 3-2-2834
UNIT NO. 3-2-2834
PAGE 11/21/7
DEVELOPER: J. E. L. S. WILLIS
TELEPHONE NO. 41-437-2521

TOTALS: 79

DAY AVG. DAILY POWER LEVEL
(DB-REF)

1	733.
2	737.
3	737.
4	581.
5	719.
6	740.
7	714.
8	724.
9	746.
10	730.
11	745.
12	750.
13	739.
14	594.
15	722.
16	747.

DAY AVG. DAILY POWER LEVEL
(DB-REF)

17	749.
18	589.
19	567.
20	737.
21	735.
22	735.
23	734.
24	701.
25	710.
26	475.
27	515.
28	53.
29	52.
30	700.
31	730.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1979

DOCKET NO. 050-0324
 UNIT NAME Brunswick Unit No. 2
 DATE November, 1979
 COMPLETED BY Eulis A. Willis
 TELEPHONE 919-457-9521

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
020	791018	1	4.25	A	1	N/A	CF	Htexch	Reduced reactor power in preparation for placing the reactor in hot shutdown. The "B" Residual Heat Removal Exchanger had previously been taken out of service due to a leak in a weld joint in the service water supply line. A lengthy temporary repair was required. While the repair was being made, the time permitted by Technical Specifications for the system being out of service expired, requiring that the unit be placed in hot shutdown. Before the unit was removed from service, the repair was completed. The leak was stopped with a temporary weld repair. Permanent repairs will be completed during the 1980 refueling outage. Overtime was worked.

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-Other (Explain)

⁴ Exhibit G - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File (NUREG-
 0161)

⁵ Exhibit I - Same Source

(9/77)

729 294

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324
 UNIT NAME Brunswick Unit No. 2
 DATE November, 1979
 COMPLETED BY Ellis A. Willis
 TELEPHONE 919-457-9521

REPORT MONTH October, 1979

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
021	791025	F	79.25	B	1	N/A	HC	Htexch	<p>Reduced power to repair leaks in A-South, B-North, and B-South waterboxes.</p> <p>Waterboxes were inspected for leaks using the helium leak detection method. A total of 50 leaking tubes were plugged. A leak at the tube sheet joint in the 2B-North waterbox could not be immediately repaired; but it is currently being controlled such that the box can remain in service. It will be re-scheduled for repair when materials arrive on site. Overtime was worked.</p>

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 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 - Other (Explain)

4
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5
 Exhibit I - Same Source

(9/77)

567 602 1709 295

APPENDIX

DOCKET NO: 050-0324

UNIT UNIT: Brunswick Unit No. 2

DATE: November, 1979

COMPLETED BY: Eulis A. Willis

OPERATIONS SUMMARY

BRUNSWICK NO. 2

Brunswick Unit No. 2 had an availability factor of 100% for the month of October, with a capacity factor of 87.6%. Two major power reductions prevented a higher capacity factor for the month:

October 18 - Power was reduced in preparation to take the unit off line because of required maintenance to "B" residual heat removal heat exchanger. Repairs were completed before the unit was separated from the grid.

October 25 - Power was reduced to repair a leak in the condenser water-boxes.

Power was also limited in order to enhance an even fuel burn throughout the core cycle.

There are 132 BWR spent fuel assemblies and 91 PWR spent fuel assemblies stored in the BSEP #2 spent fuel pool.

1329 296

POOR ORIGINAL

OPERATING DATA REPORT

REPORT NO. 001-0320

DATE 11/01/74

COMPLETED BY: ELLIS, ILLIN

TELEPHONE 910-457-4301

OPERATING STATUS

1. UNIT NAME: BRUNSWICK UNIT 1
2. REPORTING PERIOD: OCTOBER 79
3. LICENSED THERMAL POWER (MW): 2435
4. NAMEPLATE RATING (GROSS MWE): 3367.0
5. DESIGN ELECTRICAL RATING (NET MWE): 3011.0
6. MAX DEPENDABLE CAPACITY (GROSS MWE): 3115.0
7. MAX DEPENDABLE CAPACITY (NET MWE): 2790.0
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): NONE
10. REASONS FOR RESTRICTION IF ANY:

1329 297

	THIS MONTH	YTD TO DATE	CUMULATIVE
11. HOURS IN REPORTING PERIOD	740.0	729.0	740.0
12. NUMBER OF HOURS REACTOR WAS CRITICAL	407.0	4810.4	1531.0
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	1517.1
14. HOURS GENERATOR ON LINE	586.3	4097.0	15346.2
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MMB)	1230429.0	946785.3	32105049.0
17. GROSS ELECTRICAL ENERGY GENERATED (MMB)	422936.0	253062.0	10751478.0
18. NET ELECTRICAL ENERGY GENERATED (MMB)	405978.0	271712.0	10356721.0
19. UNIT SERVICE FACTOR	78.7	54.2	54.1
20. UNIT AVAILABILITY FACTOR	78.7	54.2	54.1
21. UNIT CAPACITY FACTOR (USING MDC NET)	49.0	47.1	37.0
22. UNIT CAPACITY FACTOR (USING DER NET)	66.4	45.4	54.9
23. UNIT FORCED OUTAGE RATE	21.3	7.9	20.0
24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):			
Relief Valve Modification	79 12 08	120 hours	
REFUELING	80-03 15	672 hours	
25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP:	01/01/80		
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST		

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

POOR
ORIGINAL

APPENDIX B
AVERAGE DAILY POWER LEVEL

JOURNAL NO. 612-0373
UNIT NO. 100-1111
DATE 11/21/77
COMPILED BY ELIZABETH MILLER
TELEPHONE 914-667-6671

OCTOBER 77

JAY AVG. DAILY POWER LEVEL
(100-100)

JAY AVG. DAILY POWER LEVEL
(100-100)

1	768.
2	766.
3	767.
4	763.
5	762.
6	764.
7	629.
8	281.
9	341.
10	651.
11	639.
12	764.
13	773.
14	772.
15	767.
16	764.

17	751.
18	750.
19	14.
20	0.
21	0.
22	0.
23	0.
24	0.
25	222.
26	510.
27	700.
28	769.
29	720.
30	776.
31	744.

1729 298

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH OCTOBER 1979

DOCKET NO. 050-0325
 UNIT NAME Brunswick #1
 DATE November 1979
 COMPLETED BY Eulis A. Williams
 TELEPHONE (919) 457-9521

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
019	791008	F	18.2	A	3	N/A	ZZ	CKTBRK	<p>The Reactor scrammed because of a low water level, caused by reduction of feed flow. The steam flow signal to the feed control system was lost, causing the feed pumps to run back. A fuse in steam flow channel "A" was found loose in its holder, apparently causing a loss of the steam flow signal.</p> <p>The fuse was inserted securely. Fuses in other steam flow instruments were checked on both units. Personnel working in the area were cautioned about bumping panels containing steam flow instrumentation. Permanent signs are being made to place on the panels cautioning personnel of the problems which can occur when they are bumped. Overtime was worked.</p>

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 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

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 4-Other (Explain)

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5
 Exhibit I - Same Source

(9/77)

1379 299

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH OCTOBER 1979

DOCKET NO. 050-0325
 UNIT NAME Brunswick #1
 DATE November 1979
 COMPLETED BY Ellis A. Willis
 TELEPHONE (919) 457-9521

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
020	791019	F	140.5	A	3	N/A	CG	VALVEX	<p>Reactor SCRAM on main steam line high radiation signal Channels A & B. The radiation source was identified as an increase in Nitrogen-16 carryover from the reactor water, caused by an injection of filter demineralizer resin into the reactor vessel during the return of the Reactor Water Cleanup (RWCU) System to service following maintenance. NRC concerns required Atlanta meeting, which delayed the startup from 1600 on 10/21/79 to 0407 on 10/24/79.</p> <p>The following corrective actions have been taken: (1) Procedure Modification to OP-14 "RWCU" operating procedure, precaution.</p>

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003 602 729 300

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH OCTOBER 1979

DOCKET NO. 050-0325
 UNIT NAME Brunswick #1
 DATE November 1979
 COMPLETED BY Euilis A. Willis
 TELEPHONE (919) 457-9521

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
020	(cont'd)								<p>and changes to prevent recurrence.</p> <p>(2) Temporary modification to GP-1, "General Startup Procedure", to include holdpoints for equipment and chemistry checks on return to power.</p> <p>(3) Modifications to EI-21 "Main Steam Line High Radiation", to identify possibility of resin intrusion.</p> <p>(4) Modification of "Red Phone Procedure" to set down criteria for NRC notification.</p> <p>(5) Wrote and carried out Control Rod Drive Evaluation Program to assure no resin plugging.</p> <p>(6) Development of a new Emergency Instruction EI-47 for actions to be taken in the event of resin intrusion.</p> <p>(7) Modification of RC&T Procedures 3240 and 1300 to provide better methods of determining pH. Overtime was worked.</p>

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(9/77)

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APPENDIX

DOCKET NO: 050-0325
UNIT: Brunswick No. 1
DATE: November 1979
COMPLETED BY: Eulis A. Willis

OPERATIONS SUMMARY

BRUNSWICK NO. 1

Brunswick Unit No. 1 operated at a 69% capacity factor the month of October with two shutdowns preventing higher output:

October 8 - The reactor scrammed because of low water level.
"Down Time" was 18 hours and 13 minutes.

October 19- Reactor scrammed on main steam line high radiation signal. "Down Time" was 140 hours and 33 minutes.

Monthly availability factor was 78.7%. More detailed information on these outages is provided in the Unit Shutdown and Power Reductions Log (Appendix D), included as a part of this report.

There are 320 BWR spent fuel assemblies and 154 PWR spent fuel assemblies stored in the BSEP #1 spent fuel pool.

1329 302