

APPENDIX

DOCKET NO: 050-0325  
UNIT: Brunswick No. 1  
DATE: August 1981  
COMPLETED BY: Frances Harrison

OPERATIONS SUMMARY  
BRUNSWICK UNIT NO. 1

Brunswick Unit No. 1 was off the line for the entire month of July for a planned maintenance outage.

There are 476 BWR and 160 PWR spent fuel bundles in the Brunswick Unit No. 1 fuel pool.

APPENDIX B  
AVERAGE DAILY POWER LEVEL

DOCKET NO. 050-0325  
UNIT BRUNSWICK UNIT 1  
DATE 08/03/81  
COMPLETED BY FRANCES HARRISON  
TELEPHONE 919-457-9521

JULY 81

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

# OPERATING DATA REPORT

DOCKET NO. 050-0325  
DATE 08/03/81  
COMPLETED BY FRANCES HARRISON  
TELEPHONE 919-457-952

## OPERATING STATUS

|   |   |       |   |
|---|---|-------|---|
| 1. UNIT NAME: BRUNSWICK UNIT 1  | I | NOTES | I |
| 2. REPORTING PERIOD: JULY 81  | I |       | I |
| 3. LICENSED THERMAL POWER (MWT): 2436   | I |       | I |
| 4. NAMEPLATE RATING (GROSS MWE): 867.0  | I |       | I |
| 5. DESIGN ELECTRICAL RATING (NET MWE): 821.0  | I |       | I |
| 6. MAX DEPENDABLE CAPACITY (GROSS MWE): 915.0   | I |       | I |
| 7. MAX DEPENDABLE CAPACITY (NET MWE): 790.0   | I |       | I |
| 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:

|  | THIS<br>MONTH | YR TO<br>DATE | CUMUL<br>ATIVE |
|--|---------------|---------------|----------------|
| 11. HOURS IN REPORTING PERIOD  | 744.0         | 5087.0        | 38328.0        |
| 12. NUMBER OF HOURS REACTOR WAS CRITICAL                                       | 39.3          | 2173.6        | 25975.7        |
| 13. REACTOR RESERVE SHUTDOWN HOURS   | 0.0           | 0.0           | 1647.1         |
| 14. HOURS GENERATOR ON LINE  | 0.0           | 2056.8        | 24438.7        |
| 15. UNIT RESERVE SHUTDOWN HOURS  | 0.0           | 0.0           | 0.0            |
| 16. GROSS THERMAL ENERGY GENERATED (MWH)                                       | 0.0           | 3841575.6     | 49965308.5     |
| 17. GROSS ELECTRICAL ENERGY GENERATED (MWH)                                    | 0.0           | 1256185.0     | 16581779.0     |
| 18. NET ELECTRICAL ENERGY GENERATED (MWH)                                      | -7182.0       | 1192167.0     | 15939601.0     |
| 19. UNIT SERVICE FACTOR  | 0.0           | 40.4          | 63.8           |
| 20. UNIT AVAILABILITY FACTOR   | 0.0           | 40.4          | 63.8           |
| 21. UNIT CAPACITY FACTOR (USING MDC NET)                                       | -1.2          | 29.7          | 52.6           |
| 22. UNIT CAPACITY FACTOR (USING DER NET)                                       | -1.2          | 28.5          | 50.7           |
| 23. UNIT FORCED OUTAGE RATE  | 0.0           | 8.3           | 17.4           |
| 24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): |               |               |                |

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP: 9/25/81  
26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORCAST ACHIEVED

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

# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: July 1981

DOCKET NO. 050-0325  
 UNIT NAME Brunswick 1  
 DATE August 1981  
 COMPLETED BY Frances Harrison  
 TELEPHONE (919) 457-9521

| No. | Date | Type <sup>1</sup> | Duration<br>(Hours) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down Reactor <sup>3</sup> | Licensee<br>Event<br>Report # | System<br>Code <sup>4</sup> | Component<br>Code <sup>5</sup> | Cause & Corrective<br>Action to<br>Prevent Recurrence |
|-----|------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
|     |      | S                 | 744                 | B                   | 1  | N/A                           |                             |                                | Maintenance Outage                                    |

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 Reason:  
 A-Equipment Failure (Explain)  
 B-Maintenance of Test  
 C-Refueling  
 D-Regulatory Restriction  
 E-Operator Training & License Examination  
 F-Administrative  
 G-Operational Error (Explain)  
 H-Other (Explain)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Continuations  
 5-Load Reductions  
 6-Other

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

<sup>5</sup>  
 Exhibit I - Same Source

# OPERATING DATA REPORT

DOCKET NO. 050-0324

DATE 08/03/81

COMPLETED BY FRANCES HARRISON

TELEPHONE 919-457-9521

## OPERATING STATUS

|   |   |       |   |
|---|---|-------|---|
| 1. UNIT NAME: BRUNSWICK UNIT 2  | I | NOTES | I |
| 2. REPORTING PERIOD: JULY 81  | I |       | I |
| 3. LICENSED THERMAL POWER (MWT): 2436   | I |       | I |
| 4. NAMEPLATE RATING (GROSS MWE): 867.0  | I |       | I |
| 5. DESIGN ELECTRICAL RATING (NET MWE): 821.0  | I |       | I |
| 6. MAX DEPENDABLE CAPACITY (GROSS MWE): 815.0   | I |       | I |
| 7. MAX DEPENDABLE CAPACITY (NET MWE): 790.0   | I |       | I |
| 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:

|  | THIS<br>MONTH | YR TO<br>DATE | CUMUL<br>ATIVE |
|--|---------------|---------------|----------------|
| 11. HOURS IN REPORTING PERIOD  | 744.0         | 5087.0        | 50352.0        |
| 12. NUMBER OF HOURS REACTOR WAS CRITICAL                                       | 505.3         | 2724.4        | 31746.7        |
| 13. REACTOR RESERVE SHUTDOWN HOURS   | 0.0           | 0.0           | 0.0            |
| 14. HOURS GENERATOR ON LINE  | 443.6         | 2447.2        | 29411.5        |
| 15. UNIT RESERVE SHUTDOWN HOURS  | 0.0           | 0.0           | 0.0            |
| 16. GROSS THERMAL ENERGY GENERATED (MWH)                                       | 775438.1      | 4033239.2     | 53644620.1     |
| 17. GROSS ELECTRICAL ENERGY GENERATED (MWH)                                    | 237571.0      | 1364545.0     | 17928991.0     |
| 18. NET ELECTRICAL ENERGY GENERATED (MWH)                                      | 244569.0      | 1290837.0     | 17196266.0     |
| 19. UNIT SERVICE FACTOR  | 59.6          | 48.1          | 58.4           |
| 20. UNIT AVAILABILITY FACTOR   | 59.6          | 48.1          | 58.4           |
| 21. UNIT CAPACITY FACTOR (USING MDC NET)                                       | 41.6          | 32.1          | 43.2           |
| 22. UNIT CAPACITY FACTOR (USING DER NET)                                       | 40.0          | 30.9          | 41.6           |
| 23. UNIT FORCED OUTAGE RATE  | 40.4          | 50.0          | 18.3           |
| 24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): |               |               |                |

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF START UP: 0/ 0/ 0

26. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORCAST ACHEIVED

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

APPENDIX B  
AVERAGE DAILY POWER LEVEL

DOCKET NO. 050-0324  
UNIT BRUNSWICK UNIT 2  
DATE 08/03/81  
COMPLETED BY FRANCES HARFISON  
TELEPHONE 919-457-9521

JULY 81

| DAY | AVG. DAILY POWER LEVEL<br>(MWE-NET) | DAY | AVG. DAILY POWER LEVEL<br>(MWE-NET) |
|-----|-------------------------------------|-----|-------------------------------------|
| 1   | 682.                                | 17  | 623.                                |
| 2   | 46.                                 | 18  | 142.                                |
| 3   | 192.                                | 19  | -15.                                |
| 4   | 534.                                | 20  | -14.                                |
| 5   | 660.                                | 21  | -14.                                |
| 6   | 663.                                | 22  | -13.                                |
| 7   | 674.                                | 23  | -12.                                |
| 8   | 661.                                | 24  | -11.                                |
| 9   | 654.                                | 25  | -12.                                |
| 10  | 670.                                | 26  | -13.                                |
| 11  | 82.                                 | 27  | -11.                                |
| 12  | -4.                                 | 28  | 258.                                |
| 13  | 414.                                | 29  | 353.                                |
| 14  | 608.                                | 30  | 413.                                |
| 15  | 669.                                | 31  | 675.                                |
| 16  | 634.                                |     |                                     |

## APPENDIX

DOCKET NO: 050-0324  
UNIT: Brunswick No. 2  
DATE: August 1981  
COMPLETED BY: Frances Harrison

### OPERATIONS SUMMARY BRUNSWICK UNIT NO. 2

Brunswick Unit No. 2 operated at a 59.6% availability factor for the month of July with 41.6% capacity factor. There were three "off-line" outages this month, they are detailed in Appendix D, the unit shutdowns and power reductions log.

There are 264 BWR and 144 PWR spent fuel bundles in the Brunswick Unit No. 2 fuel pool.



# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH July 1981

DOCKET NO. 050-0325  
 UNIT NAME Brunswick 2  
 DATE August 1981  
 COMPLETED BY Frances Harrison  
 TELEPHONE (919)457-9521

| No.    | Date     | Type <sup>1</sup> | Duration (Hours) | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence   |
|--------|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|---|
| 81-019 | 81/07/03 | F                 | 32.8             | B                   | 3  | N/A                     | CD                       | VALVOP                      | <p>Failure of 2-B21-F022C MSIV (inboard) disk separated from stem. Outage was extended because of loss of feedwater control.</p> <p>Shut 2-B21-F028C, hung Shift Foreman's clearance on both F022 &amp; F028C. Repressurizing to reactor pressure prior to valving.</p> |

<sup>1</sup> F: Forced  
S: Scheduled

<sup>2</sup> Reason:  
 A-Equipment Failure (Explain)  
 B-Maintenance of Test  
 C-Refueling  
 D-Regulatory Restriction  
 E-Operator Training & License Examination  
 F-Administrative  
 G-Operational Error (Explain)  
 H-Other (Explain)

<sup>3</sup> Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Continuations  
 5-Load Reductions  
 6-Other

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

<sup>5</sup> Exhibit I - Same Source



# UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH July 1981

DOCKET NO. 050-0325  
 UNIT NAME Brunswick 2  
 DATE August 1981  
 COMPLETED BY Frances Harrison  
 TELEPHONE (919)457-9521

| No.    | Date     | Type <sup>1</sup> | Duration (Hours) | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence |
|--------|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|---|
| 81-020 | 81/07/11 | 1                 | 40.2             | A                   | 3  | N/A                     |                          |                             | Outage cause being investigated by Engineering  |

<sup>1</sup> F: Forced  
S: Scheduled

<sup>2</sup> Reason:  
A-Equipment Failure (Explain)  
B-Maintenance of Test  
C-Refueling  
D-Regulatory Restriction  
E-Operator Training & License Examination  
F-Administrative  
G-Operational Error (Explain)  
H-Other (Explain)

<sup>3</sup> Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Continuations  
5-Load Reductions  
6-Other

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

<sup>5</sup> Exhibit I - Same Source

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH July 1981DOCKET NO. 050-0325UNIT NAME Brunswick 2DATE August 1981COMPLETED BY Frances HarrisonTELEPHONE (919)457-9521

| No.    | Date    | Type <sup>1</sup> | Duration<br>(Hours) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down Reactor <sup>3</sup> | Licensee<br>Event<br>Report # | System<br>Code <sup>4</sup> | Component<br>Code <sup>5</sup> | Cause & Corrective<br>Action to<br>Prevent Recurrence  |
|--------|---------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|--|
| 81-021 | 8/07/81 | F                 | 227.4               | A                   | 1  | N/A                           | CD                          | VALVOP                         | MSIV Repairs<br>Removed and repaired stem disc<br>assembly and ensured stem and<br>disc were pinned properly |

<sup>1</sup>  
F: Forced  
S: Scheduled

<sup>2</sup>  
Reason:  
A-Equipment Failure (Explain)  
B-Maintenance of Test  
C-Refueling  
D-Regulatory Restriction  
E-Operator Training & License Examination  
F-Administrative  
G-Operational Error (Explain)  
H-Other (Explain)

<sup>3</sup>  
Method:  
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for Preparation of Data  
Entry Sheets for Licensee  
Event Report (LER) File (NUREG-  
0161)

<sup>5</sup>  
Exhibit I - Same Source