

50-261/324

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TO: Mr Lovelace

FROM: Carolina Power & Light Co  
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## DESCRIPTION

Ltr re our 8-4-76 ltr...trans the following:

PLANT NAME:

Robinson &amp; Brunswick #2

## ENCLOSURE

Corrections for monthly operating reports  
as listed in transmittal letter.....

DO NOT REMOVE

ACKNOWLEDGED

## SAFETY

## FOR ACTION/INFORMATION

ENVIRO 9-21-76 ehf

ASSIGNED AD:

BRANCH CHIEF:

PROJECT MANAGER:

LIC. ASST.:

ASSIGNED AD:

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PROJECT MANAGER:

LIC. ASST.:

MIPC (4) For Action

## INTERNAL DISTRIBUTION

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OELD		LAINAS	
GOSSICK & STAFF	ENGINEERING	IPPOLITO	ENVIRO TECH.
MIPC	MACCARRY	KIRKWOOD	ERNST
CASE	KNIGHT		BALLARD
HANAUER	SIHWEIL	OPERATING REACTORS	SPANGLER
HARLESS	PAWLICKI	STELLO	
			SITE TECH.
PROJECT MANAGEMENT	REACTOR SAFETY	OPERATING TECH.	GAMMILL
BOYD	ROSS	EISENHUT	STEEP
P. COLLINS	NOVAK	SHAO	HULMAN
HOUSTON	ROSZTOCZY	BAER	
PETERSON	CHECK	BUTLER	SITE ANALYSIS
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ASLB:	CONSULTANTS	
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Carolina Power &amp; Light Company

September 17, 1976

FILE: NG-3513 (B&amp;R)

SERIAL: NG-76-1218

U. S. Nuclear Regulatory Commission  
Office of Management Information and  
Program Control  
Regulatory Information Systems Division  
Plans Branch  
Washington, D.C. 20555

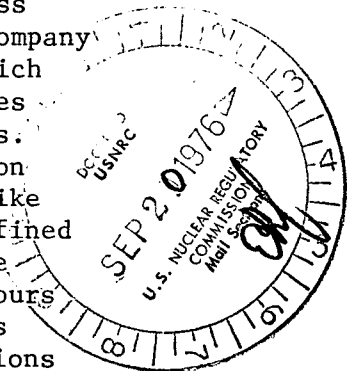
Attention: W. H. Lovelace, Chief

H. B. ROBINSON AND BRUNSWICK, UNIT 2  
DOCKETS 50-261 and 50-324  
LICENSES DPR-21 and DPR-62  
OPERATING UNITS STATUS REPORT DISCREPANCIES



Attached to this letter you will find replacement pages for H. B. Robinson, Unit 2, Operating Unit Status Reports for January and March, 1976, correcting the discrepancies identified in your letter of August 4, 1976. Also attached are data packages for January through July, 1976, for Brunswick Unit 2, correcting the errors identified in your letter plus additional inconsistencies discovered in our review of the data.

The discrepancies identified for both plants in the gross hours accounting were due to the carry-over of an internal company definition concerning outage durations. This definition, which predated Regulatory Guide 1.16, used reactor criticality times as the determining factor rather than generator-on-line times. Future outage reporting will be consistent with the definition as given in Regulatory Guide 1.16, Revision 4. CP&L would like to point out, however, that the outage duration currently defined in Regulatory Guide 1.16, Rev. 4, seems inconsistent. By the current criteria, the sum of all outage durations plus the hours the generator is on line must equal the total number of hours in the period. This forces one to set power reduction durations to zero, thus eliminating one of the most important pieces of data concerning reductions from the report. The duration of forced power reductions is required data for annual reports indicating that some use for this data is anticipated. Therefore, we suggest that the reporting requirements and format of the Monthly Operating Reports be reviewed for consistency.



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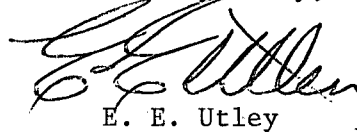
Attention: Mr. W. H. Lovelace,

-2-

September 17, 1976

If we may be of further assistance in resolving these issues to promote the development of a useful, timely, operational data base, please let us know.

Yours very truly,

A handwritten signature in dark ink, appearing to read "E. E. Utley", written in a cursive style.

E. E. Utley  
Vice President  
Bulk Power Supply

CSB:jfc

Attachment

**APPENDIX E  
UNIT SHUTDOWNS**

DOCKET NO. DPR-23  
UNIT NAME H. B. Robinson  
DATE 2/3/76  
COMPLETED BY M. L. Watford

REPORT MONTH January, 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
	1/9/76	F	4.50	A	3	Loss of Instrument Buses No. 3 and No. 8
	1/13/76	F	111.66	A	1	"A" RCP Seal Failure
						<div> <div> (1) REASON  A - EQUIPMENT FAILURE (EXPLAIN)  B - MAINT. OR TEST  C - REFUELING  D - REGULATORY RESTRICTION  E - OPERATOR TRAINING AND        LICENS. EXAMINATION  F - ADMINISTRATIVE  G - OPERATIONAL ERROR        (EXPLAIN)  H - OTHER (EXPLAIN) </div> <div> (2) METHOD  1 - MANUAL  2 - MANUAL        SCRAM  3 - AUTOMATIC        SCRAM </div> </div>

**SUMMARY:**

The unit was on the line for 627.84 hours during the month.  
The unit experienced two forced outages during the report period.

APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. DPR-23UNIT NAME H. B. Robinson 2DATE 4/5/76COMPLETED BY M. L. WatfordREPORT MONTH March, 1976

TELEPHONE \_\_\_\_\_

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
302	3/23/76	F	2.20	A	2	Loss of instrument bus 3, resulting in continuous runback.
303	3/23/76	F	2.30	A	3	Turbine trip-trip from high water level in steam generator 3.
304	3/31/76	F	4.55	A	3	Loss of instrument bus 3 and 8, steam flow > feedwater flow with steam generator low water level.
						<div> <div>(1) Reason</div> <div> A. Equipment Failure (Explain) B. Maint. or Test C. Refueling D. Reg. Restriction E. Operator Training and License Exam. F. Administrative G. Operational Error (Explain) H. Other (Explain) </div> </div> <div> <div>(2) Method</div> <div> 1. Manual 2. Manual Scram 3. Automatic Scram </div> </div>

SUMMARY: The unit was on the line 734.95 hours during the month with 9.05 hours credit to forced outage hours. Three shutdowns were experienced during the month.

APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE February 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 Ext. 273

MONTH January 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>575</u>
2	<u>575</u>
3	<u>423</u>
4	<u>384</u>
5	<u>381</u>
6	<u>387</u>
7	<u>387</u>
8	<u>389</u>
9	<u>389</u>
10	<u>405</u>
11	<u>427</u>
12	<u>424</u>
13	<u>426</u>
14	<u>425</u>
15	<u>498</u>
16	<u>567</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>584</u>
18	<u>647</u>
19	<u>220</u>
20	<u>0</u>
21	<u>145</u>
22	<u>178</u>
23	<u>173</u>
24	<u>181</u>
25	<u>174</u>
26	<u>280</u>
27	<u>517</u>
28	<u>604</u>
29	<u>685</u>
30	<u>742</u>
31	<u>776</u>

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 when maximum dependable capacity is used 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.

# APPENDIX C OPERATING DATA REPORT

DOCKET NO. 050-0324  
UNIT Brunswick No. 2  
DATE February 1, 1976  
COMPLETED BY M. C. Yovanovich  
TELEPHONE (919) 457-6701 Ext. 275

## OPERATING STATUS

1. REPORTING PERIOD: January 1976 GROSS HOURS IN REPORTING PERIOD: 744  
2. CURRENTLY AUTHORIZED POWER LEVEL (MWe): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 808  
DESIGN ELECTRICAL RATING (MWe-Net): 821  
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None  
4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	<u>708</u>	<u>708</u>	<u>5080</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>700</u>	<u>700</u>	<u>3956</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>946,428</u>	<u>946,428</u>	<u>5,665,126</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>321,622</u>	<u>321,622</u>	<u>1,827,483</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>310,589</u>	<u>310,589</u>	<u>1,715,955</u>
12. REACTOR SERVICE FACTOR	<u>95.16</u>	<u>95.16</u>	<u>95.33</u>
13. REACTOR AVAILABILITY FACTOR	<u>95.09</u>	<u>95.09</u>	<u>95.52</u>
14. UNIT SERVICE FACTOR	<u>94.09</u>	<u>94.09</u>	<u>93.62</u>
15. UNIT AVAILABILITY FACTOR	<u>94.09</u>	<u>94.09</u>	<u>93.67</u>
16. UNIT CAPACITY FACTOR (Using MDC)	<u>51.67</u>	<u>51.67</u>	<u>59.39</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)	<u>50.85</u>	<u>50.85</u>	<u>57.11</u>
18. UNIT FORCED OUTAGE RATE	<u>4.96</u>	<u>4.96</u>	<u>5.85</u>

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): Correct design deficiencies (LPRM Vibration) - 3 weeks, starting 2/16/76.  
20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: ---

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY	<u>---</u>	<u>03-20-75</u>
INITIAL ELECTRICITY	<u>---</u>	<u>04-29-75</u>
COMMERCIAL OPERATION	<u>---</u>	<u>11-03-75</u>

## APPENDIX D

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 950-0324

UNIT NAME Brunswick No. 2

DATE February 1, 1976

COMPLETED BY M. C. Yovanovich

REPORT MONTH January 1976

TELEPHONE (919) 457-6701  
Ext. 275

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
001	760103	E	--	A	--	Main Steam By-Pass Valves No. 2,4,6,8, &10, failed to function properly. This resulted in a self-imposed reduction to 50% power. (Reduction from 575 MWE to 408 MWE)
002	760110	F	44.0	A	2	A rapid increase was detected by the stack Off-Gas Radiation Monitor. Within moments, an explosion was heard in the stack-house. The reactor was manually scrammed to reduce levels. Cause was determined to be a faulty loop seal. Damage was minimal.
						<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> <p>(2) METHOD</p> <p>1: MANUAL</p> <p>2: MANUAL SCRAM.</p> <p>3: AUTOMATIC SCRAM</p> <p>4: OTHER (EXPLAIN)</p>

SUMMARY:

1.6-13



APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE March 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701  
Ext. 275

MONTH February, 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	781
2	418
3	0
4	71
5	117
6	476
7	409
8	374
9	616
10	696
11	0
12	0
13	0
14	0
15	0
16	0

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	0
18	0
19	220
20	530
21	647
22	718
23	771
24	736
25	724
26	769
27	769
28	734
29	387
30	-
31	-

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 when maximum dependable capacity is used 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.

# APPENDIX C OPERATING DATA REPORT

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE March 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 Ext. 275

## OPERATING STATUS

1. REPORTING PERIOD: February 1976 GROSS HOURS IN REPORTING PERIOD: 696

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 790  
DESIGN ELECTRICAL RATING (MWe-Net): 821

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None

4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL .....	<u>474</u>	<u>1181</u>	<u>5553</u>
6. REACTOR RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE .....	<u>419.4</u>	<u>1119</u>	<u>4375</u>
8. UNIT RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH) .....	<u>817,172</u>	<u>1,763,600</u>	<u>6,482,298</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH) .....	<u>271,951</u>	<u>593,573</u>	<u>2,099,434</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH) .....	<u>260,807</u>	<u>571,396</u>	<u>1,976,762</u>
12. REACTOR SERVICE FACTOR .....	<u>68.16</u>	<u>82.03</u>	<u>88.63</u>
13. REACTOR AVAILABILITY FACTOR .....	<u>68.16</u>	<u>82.03</u>	<u>88.63</u>
14. UNIT SERVICE FACTOR .....	<u>60.29</u>	<u>77.71</u>	<u>85.26</u>
15. UNIT AVAILABILITY FACTOR .....	<u>60.29</u>	<u>77.71</u>	<u>85.26</u>
16. UNIT CAPACITY FACTOR (Using MDC) .....	<u>47.50</u>	<u>50.23</u>	<u>55.05</u>
17. UNIT CAPACITY FACTOR (Using Design MWe) .....	<u>45.71</u>	<u>48.33</u>	<u>52.97</u>
18. UNIT FORCED OUTAGE RATE .....	<u>34.56</u>	<u>18.78</u>	<u>11.77</u>

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): Correct Design Deficiencies (LPRM Vibration) - 3 to 4 weeks - starting 3-20-76.

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: -

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY	<u>-</u>	<u>03-20-75</u>
INITIAL ELECTRICITY	<u>-</u>	<u>04-29-75</u>
COMMERCIAL OPERATION	<u>-</u>	<u>11-03-75</u>

APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE March 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701  
Ext. 275

REPORT MONTH February, 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
003	760202	F	37.1	A	1	<p>Reactor was orderly shut-down due to excessive leakage in drywell floor drain. (&lt;5GPM) packing leak was discovered.</p> <p>Reactor Scram on Low Reactor Water Level. False instrument reading was determined as cause.</p> <p>Wiring changes were being made to Distribution Panel 2AHG4. During this operation, a cable became disconnected in error from Breaker No. 6 which supplies power to Panel No. 603. This resulted in Reactor Scram.</p> <p>(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)</p> <p>(2) METHOD 1: MANUAL 2: MANUAL SCRAM. 3: AUTOMATIC SCRAM 4: OTHER (EXPLAIN)</p>

SUMMARY:

1.16-13

APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE March 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701  
Ext. 275

REPORT MONTH February 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
004	76020	F	27.3	A	3	Reactor Scram on Low Reactor Water Level. Level recorder was hanging at normal reactor water level. Operator was unaware of this situation.  Reactor Scram during start-up due to APRM B&C upscale. Adjustments were being made on feed-water level.
005	760207	F	11.4	B	3	During Periodic Test No. 1.1.4 (Reactor Low Water Level #1) a field technician erroneously valved out 2B21-N017 which caused Reactor Scram.

- (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 (EXPLAIN)

SUMMARY:

APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE March 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701  
Ext. 275

REPORT MONTH February 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
006	760210	S	200.8	B & A	2	Start-up Test No. 25 - Reactor Scram on main steam isolation valve closure test. Excessive Drywell leakage delayed start-up. Packing leaks were repaired.  Blown control fuse in control logic of discharge valves, caused feedwater transients, resulting high flux in IRM Range, and Reactor Scram.
007	760228	S	---	H	---	Reduction in power from 776 mw to 317 mw during double recirc pump test  (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 (EXPLAIN)

SUMMARY:

1.6-13

APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE April 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 | Ext. 275

MONTH March 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	409
2	246
3	127
4	194
5	380
6	421
7	411
8	491
9	526
10	615
11	685
12	755
13	757
14	453
15	0
16	248

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	414
18	593
19	14
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0

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 when maximum dependable capacity is used 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.

## APPENDIX C

## OPERATING DATA REPORT

DOCKET NO. 050-0324UNIT Brunswick No. 2DATE April 1, 1976COMPLETED BY M. C. YovanovichTELEPHONE (919) 457-6701 Ext. 275

## OPERATING STATUS

1. REPORTING PERIOD: March 1976 GROSS HOURS IN REPORTING PERIOD: 744
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 790  
DESIGN ELECTRICAL RATING (MWe-Net): 821
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None
4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	<u>415</u>	<u>1597</u>	<u>5969</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>385.3</u>	<u>1,504</u>	<u>4,760</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>591,218</u>	<u>2,354,818</u>	<u>7,073,516</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>190,555</u>	<u>784,128</u>	<u>2,289,989</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>181,280</u>	<u>752,676</u>	<u>2,158,042</u>
12. REACTOR SERVICE FACTOR	<u>55.82</u>	<u>73.10</u>	<u>81.85</u>
13. REACTOR AVAILABILITY FACTOR	<u>55.82</u>	<u>73.10</u>	<u>81.85</u>
14. UNIT SERVICE FACTOR	<u>51.79</u>	<u>68.88</u>	<u>78.34</u>
15. UNIT AVAILABILITY FACTOR	<u>51.79</u>	<u>68.88</u>	<u>78.34</u>
16. UNIT CAPACITY FACTOR (Using MDC)	<u>30.84</u>	<u>43.62</u>	<u>50.05</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)	<u>29.68</u>	<u>41.98</u>	<u>48.16</u>
18. UNIT FORCED OUTAGE RATE	<u>46.04</u>	<u>28.09</u>	<u>18.81</u>

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

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: April 20, 1976

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):

	FORECAST	ACHIEVED
INITIAL CRITICALITY	<u>--</u>	<u>03-20-75</u>
INITIAL ELECTRICITY	<u>--</u>	<u>04-29-75</u>
COMMERCIAL OPERATION	<u>--</u>	<u>11-03-75</u>

## APPENDIX D

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324UNIT NAME Brunswick No. 2DATE April 1, 1976COMPLETED BY M. C. YovanovichTELEPHONE (919) 457-6701

Ext. 275

REPORT MONTH March 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
008	760302	F	16.2	H	3	Maintenance Contractor was scrubbing floors when machine jarred instrument rack containing instruments 2-B21-N023A & B, resulting in reactor scram on HI Reactor Pressure.
009	760314	F	33.7	A	1	<p>Orderly shutdown due to HPCI (High Pressure Coolant Injection) being inoperative and problems developing with the TIP System.</p> <p>Reactor scram on Low Reactor Water Level during manual shutdown No. 012.</p> <p>(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)</p> <p>(2) METHOD  1: MANUAL  2: MANUAL SCRAM.  3: AUTOMATIC SCRAM  4: OTHER (EXPLAIN)</p>
SUMMARY:						

11613



APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE April 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701

Ext. 275

REPORT MONTH March 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
010	760318	F	308.8	A	1	<p>Increased leakage in drywell floor drain (&gt;5 GPM) resulted in orderly shut-down.</p> <p>Secured shutdown from drywell leakage (Shutdown NO. 010). Continued outage to allow General Electric to correct design deficiencies (LPRM vibration) length of outage approx. 4 weeks.</p> <p>(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)</p> <p>(2) METHOD 1: MANUAL 2: MANUAL SCRAM. 3: AUTOMATIC SCRAM 4: OTHER (EXPLAIN)</p>
SUMMARY:						

116-13

APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE May 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 Ext. 275

MONTH April 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	-

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 when maximum dependable capacity is used 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.

# APPENDIX C OPERATING DATA REPORT

DOCKET NO. 050-0324

AMENDED

UNIT Brunswick No. 2

DATE May 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 Ext. 275

## OPERATING STATUS

1. REPORTING PERIOD: April, 1976 GROSS HOURS IN REPORTING PERIOD: 719

2. CURRENTLY AUTHORIZED POWER LEVEL (MWe): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 790  
DESIGN ELECTRICAL RATING (MWe-Net): 821

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): NONE

4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	<u>0</u>	<u>1,597</u>	<u>5,969</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>0</u>	<u>1,504</u>	<u>4,760</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>0</u>	<u>2,354,818</u>	<u>7,073,516</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>0</u>	<u>784,128</u>	<u>2,289,989</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>0</u>	<u>752,676</u>	<u>2,158,042</u>
12. REACTOR SERVICE FACTOR	<u>0</u>	<u>54.98</u>	<u>68.21</u>
13. REACTOR AVAILABILITY FACTOR	<u>0</u>	<u>54.98</u>	<u>68.21</u>
14. UNIT SERVICE FACTOR	<u>0</u>	<u>51.80</u>	<u>65.28</u>
15. UNIT AVAILABILITY FACTOR	<u>0</u>	<u>51.80</u>	<u>65.28</u>
16. UNIT CAPACITY FACTOR (Using MDC)	<u>-0.73</u>	<u>32.63</u>	<u>41.58</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)	<u>-0.71</u>	<u>31.39</u>	<u>40.01</u>
18. UNIT FORCED OUTAGE RATE	<u>100.00</u>	<u>46.50</u>	<u>32.75</u>

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

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: May 20, 1976

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):

	FORECAST	ACHIEVED
INITIAL CRITICALITY	<u>---</u>	<u>03-02-75</u>
INITIAL ELECTRICITY	<u>---</u>	<u>04-29-75</u>
COMMERCIAL OPERATION	<u>---</u>	<u>11-03-75</u>

**APPENDIX D**  
**UNIT SHUTDOWNS AND POWER REDUCTIONS**

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE May 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701 Ext. 2

REPORT MONTH April 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
010	760401	S	719.0	B	1	Continuing outage from previous month to allow General Electric to correct design deficiencies. (LPRM Vibration). Also making repairs to recirculation By-pass line piping.

- (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 (EXPLAIN)

SUMMARY:

11-16-13

APPENDIX E  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE June 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701

MONTH May 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	51.92
28	0
29	0
30	0
31	114.17

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 when maximum dependable capacity is used 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.

# APPENDIX C OPERATING DATA REPORT

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE June 1, 1976

COMPLETED BY M. C. Yovanovich

TELEPHONE (919) 457-6701

AMENDED

## OPERATING STATUS

1. REPORTING PERIOD: May 1976 GROSS HOURS IN REPORTING PERIOD: 744
2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 790  
DESIGN ELECTRICAL RATING (MWe-Net): 821
3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None
4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL .....	<u>1266</u>	<u>1723</u>	<u>6095</u>
6. REACTOR RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE .....	<u>36.3</u>	<u>1541</u>	<u>4797</u>
8. UNIT RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH) .....	<u>16003</u>	<u>2370821</u>	<u>7089520</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH) .....	<u>4591</u>	<u>788719</u>	<u>2294580</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH) .....	<u>0</u>	<u>752,676</u>	<u>2,158,042</u>
12. REACTOR SERVICE FACTOR .....	<u>17.02</u>	<u>47.23</u>	<u>60.69</u>
13. REACTOR AVAILABILITY FACTOR .....	<u>17.02</u>	<u>47.23</u>	<u>60.69</u>
14. UNIT SERVICE FACTOR .....	<u>4.88</u>	<u>42.23</u>	<u>56.41</u>
15. UNIT AVAILABILITY FACTOR .....	<u>4.88</u>	<u>42.23</u>	<u>56.41</u>
16. UNIT CAPACITY FACTOR (Using MDC) .....	<u>0.23</u>	<u>25.93</u>	<u>35.44</u>
17. UNIT CAPACITY FACTOR (Using Design MWe) .....	<u>0.22</u>	<u>24.95</u>	<u>34.10</u>
18. UNIT FORCED OUTAGE RATE .....	<u>94.94</u>	<u>55.54</u>	<u>41.07</u>

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

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY	<u>--</u>	<u>03-20-75</u>
INITIAL ELECTRICITY	<u>--</u>	<u>04-29-75</u>
COMMERCIAL OPERATION	<u>--</u>	<u>11-03-75</u>

## APPENDIX D

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324UNIT NAME Brunswick No. 2DATE June 1, 1976COMPLETED BY M. C. YovanovichTELEPHONE (919) 457-6701AMENDEDREPORT MONTH May 1976

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
010	760501	S	626.4	B	1	Continued outage from previous month to allow general electric to correct design deficiencies. (LPRM vibration) Also making repairs to recirculation by-pass line piping.
011	760530	F	81.3	A	2	Reactor scram on control valve fast closure trip during PT 40.2.5 2B recirc. pump seal damaged due to a pressure transient.
SUMMARY:						<p>(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)</p> <p>(2) METHOD  1: MANUAL  2: MANUAL SCRAM.  3: AUTOMATIC SCRAM  4: OTHER (EXPLAIN)</p>

116-13

APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-324

UNIT 2

DATE 7-1-76

COMPLETED BY Donald Warren

TELEPHONE 457-6701 Ext. 275

MONTH JUNE 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>136</u>
2	<u>233</u>
3	<u>321</u>
4	<u>385</u>
5	<u>428</u>
6	<u>488</u>
7	<u>529</u>
8	<u>384</u>
9	<u>394</u>
10	<u>402</u>
11	<u>482</u>
12	<u>553</u>
13	<u>583</u>
14	<u>650</u>
15	<u>628</u>
16	<u>724</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>759</u>
18	<u>771</u>
19	<u>766</u>
20	<u>168</u>
21	<u>235</u>
22	<u>299</u>
23	<u>476</u>
24	<u>536</u>
25	<u>604</u>
26	<u>613</u>
27	<u>686</u>
28	<u>743</u>
29	<u>588</u>
30	<u>602</u>
31	<u></u>

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 when maximum dependable capacity is reached 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.



# APPENDIX C

## OPERATING DATA REPORT

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE July 2, 1976

COMPLETED BY D. J. Warren

TELEPHONE (919) 457-6701 Ext. 275

### OPERATING STATUS

1. REPORTING PERIOD: June 1976 GROSS HOURS IN REPORTING PERIOD: 720

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2436 MAX. DEPEND. CAPACITY (MWe-Net): 790  
DESIGN ELECTRICAL RATING (MWe-Net): 821

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): None

4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	<u>702.9</u>	<u>2426</u>	<u>6798</u>
6. REACTOR RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE	<u>692.5</u>	<u>2233</u>	<u>5489</u>
8. UNIT RESERVE SHUTDOWN HOURS	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH)	<u>1,078,926</u>	<u>3,449,747</u>	<u>8,168,445</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	<u>377,869</u>	<u>1,166,588</u>	<u>2,672,449</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH)	<u>364,034</u>	<u>1,116,710</u>	<u>2,522,076</u>
12. REACTOR SERVICE FACTOR	<u>97.62</u>	<u>55.54</u>	<u>65.28</u>
13. REACTOR AVAILABILITY FACTOR	<u>97.62</u>	<u>55.54</u>	<u>65.28</u>
14. UNIT SERVICE FACTOR	<u>96.18</u>	<u>51.12</u>	<u>61.36</u>
15. UNIT AVAILABILITY FACTOR	<u>96.18</u>	<u>51.12</u>	<u>61.36</u>
16. UNIT CAPACITY FACTOR (Using MDC)	<u>63.99</u>	<u>32.20</u>	<u>38.99</u>
17. UNIT CAPACITY FACTOR (Using Design MWe)	<u>61.58</u>	<u>30.98</u>	<u>37.52</u>
18. UNIT FORCED OUTAGE RATE	<u>2.41</u>	<u>46.51</u>	<u>36.13</u>

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

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION): FORECAST ACHIEVED

INITIAL CRITICALITY	_____	<u>03-20-75</u>
INITIAL ELECTRICITY	_____	<u>04-29-75</u>
COMMERCIAL OPERATION	_____	<u>11-03-75</u>

**APPENDIX D**  
**UNIT SHUTDOWNS AND POWER REDUCTIONS**

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE July 2, 1976

COMPLETED BY D. J. Warren

TELEPHONE (919) 457-6701  
Ext. 275

REPORT MONTH JUNE

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
012	760601	F	2.7	A	4	Tripped. Generator off line to repair leak on E.H.C.
013	760620	F	15.7	A	3	Reactor Scram during turbine trip test while performing PT 1.2.3
014	760621	F	10.2	G	3	Reactor Scram due to I&C error while performing PT 3.1.5. Valve was not valved out causing surge on turbine trip instrument causing scram.
015	760629	F	--	A	--	Airline broke on 5B control valve; recirc pump speed reduced to lower power level.

- (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 (EXPLAIN)

SUMMARY:

11613

APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 050-0324

UNIT Brunswick No. 2

DATE Aug. 3, 1976

COMPLETED BY E. O. Eagle, Jr.

TELEPHONE 457-6701  
Ex. 241

MONTH July 1976

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>694</u>
2	<u>754</u>
3	<u>754</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>98</u>
8	<u>323</u>
9	<u>368</u>
10	<u>545</u>
11	<u>352</u>
12	<u>0</u>
13	<u>183</u>
14	<u>192</u>
15	<u>0</u>
16	<u>0</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>0</u>
18	<u>0</u>
19	<u>227</u>
20	<u>369</u>
21	<u>482</u>
22	<u>469</u>
23	<u>516</u>
24	<u>626</u>
25	<u>634</u>
26	<u>688</u>
27	<u>688</u>
28	<u>539</u>
29	<u>0</u>
30	<u>225</u>
31	<u>423</u>

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 when maximum dependable capacity is reached 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.

# APPENDIX C OPERATING DATA REPORT

DOCKET NO. 050-0324

UNIT Brunswick #2

DATE Aug. 1976

COMPLETED BY E.O. Eagle, Jr.

TELEPHONE 457-6701 Ex. 241 | 919  
(For Don Warren)

## OPERATING STATUS

1. REPORTING PERIOD: July GROSS HOURS IN REPORTING PERIOD: 744

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt): 2436 MAX. DEPEND. CAPACITY (MW<sub>e</sub>-Net): 790  
DESIGN ELECTRICAL RATING (MW<sub>e</sub>-Net): 821

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MW<sub>e</sub>-Net): None

4. REASONS FOR RESTRICTION (IF ANY):

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL .....	<u>520</u>	<u>2946</u>	<u>7318</u>
6. REACTOR RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
7. HOURS GENERATOR ON LINE .....	<u>477</u>	<u>2710</u>	<u>5966</u>
8. UNIT RESERVE SHUTDOWN HOURS .....	<u>0</u>	<u>0</u>	<u>0</u>
9. GROSS THERMAL ENERGY GENERATED (MWH) .....	<u>788028</u>	<u>4237775</u>	<u>8956473</u>
10. GROSS ELECTRICAL ENERGY GENERATED (MWH) .....	<u>254200</u>	<u>1420788</u>	<u>2926649</u>
11. NET ELECTRICAL ENERGY GENERATED (MWH) .....	<u>240.671</u>	<u>1357318</u>	<u>2762747</u>
12. REACTOR SERVICE FACTOR .....	<u>69.83</u>	<u>57.62</u>	<u>65.80</u>
13. REACTOR AVAILABILITY FACTOR .....	<u>69.83</u>	<u>57.62</u>	<u>65.80</u>
14. UNIT SERVICE FACTOR .....	<u>64.05</u>	<u>53.01</u>	<u>61.67</u>
15. UNIT AVAILABILITY FACTOR .....	<u>64.05</u>	<u>53.01</u>	<u>61.67</u>
16. UNIT CAPACITY FACTOR (Using MDC) .....	<u>40.95</u>	<u>33.47</u>	<u>39.22</u>
17. UNIT CAPACITY FACTOR (Using Design MW <sub>e</sub> ) .....	<u>39.40</u>	<u>32.21</u>	<u>37.74</u>
18. UNIT FORCED OUTAGE RATE .....	<u>32.02</u>	<u>44.43</u>	<u>35.67</u>

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): Repair main Steam Isolation Valve; Date: unknown; length: unknown

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):	FORECAST	ACHIEVED
INITIAL CRITICALITY	_____	<u>3-20-75</u>
INITIAL ELECTRICITY	_____	<u>4-29-75</u>
COMMERCIAL OPERATION	_____	<u>11-3-75</u>

**APPENDIX E**  
**UNIT SHUTDOWNS**

DOCKET NO. 050-0324

UNIT NAME Brunswick #2

DATE Aug. 3, 1976

COMPLETED BY E.O. Eagle, Jr.  
457-6701 Ex. 241  
(For Don Warren)

REPORT MONTH July, 1976

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTIONS/COMMENTS
016	7/3/76	S	84	B	3	Startup Test No. 27 - Turbine Trip Test
017	7/11/76	F	41.6	D	2	High Drywell Leakage through Drywell Floor Drains
018	7/14/76	F	9.7	H	3	Rx scram caused by Turbine trip. Probably caused by laborers bumping relay causing master turbine trip.

SUMMARY:

1.16-E-1

APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 050-0324

UNIT NAME Brunswick No. 2

DATE August 3, 1976

COMPLETED BY E.O. Eagle, Jr.

TELEPHONE 457-6701 ex. 241

REPORT MONTH July, 1976

(For Don Warren)

1.16-13

NO.	DATE	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTIONS/COMMENTS
019	760715	F	95.1	A	2	Safety relief valve F013K lifted due to steam cuts in Actuator Pilot causing low reactor pressure and reactor scram.
020	760715	F	1.6	F	N/A	Generator off line to adjust voltage regulator
021	760728	F	34.3	A	3	An exit valve from condensate deepbed demineralizer failed to open causing booster pumps trip and giving a low reactor water level scram
022	760730	F	0.7	F	4	Generator taken off line due to core monitoring problems (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 (EXPLAIN)

SUMMARY: