



Tennessee Valley Authority, P.O. Office Box 2000, Decatur, Alabama 35600

JAN 13 1992

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

| | | |
|----------------------------|---|--------------------|
| In the Matter of |) | Docket Nos. 50-259 |
| Tennessee Valley Authority |) | 50-260 |
| | | 50-296 |

BROWNS FERRY NUCLEAR PLANT (BFN) - MONTHLY OPERATING REPORT FOR THE MONTH OF DECEMBER 1991

In accordance with the requirements of the BFN Technical Specifications (TS) section 6.9.1.3, the Monthly Operating Report for the month of December 1991 is provided in Enclosure 1.

If you have any questions, please telephone me at (205) 729-7566.

Sincerely,

R. R. Baron, Manager
of Site Licensing

Enclosures
cc: See page 2

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PDR ADOCK 05000239
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U.S. Nuclear Regulatory Commission

JAN 13 1992

Enclosures

cc (Enclosures):

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MONTHLY OPERATING REPORT

BROWNS FERRY NUCLEAR PLANT

TENNESSEE VALLEY AUTHORITY

DECEMBER 1991

DOCKET NUMBERS 50-259, 50-260, AND 50-296

LICENSE NUMBERS DPR-33, DPR-52, AND DPR-68

OPERATIONAL SUMMARY
DECEMBER 1991

UNIT 1

Unit remains on administrative hold to resolve various TVA and NRC concerns.

UNIT 2

Unit 2 generated 733,340 MWhs (gross) electrical power and was on line approximately 94 percent of the reporting period. The outage time was due to a failed fuse in the generator protection system.

UNIT 3

Unit remains on administrative hold to resolve various TVA and NRC concerns.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-259

Unit One

PREPARED BY S. A. Ratliff

TELEPHONE (205) 729-2937

MONTH DECEMBER 1991

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|----------------------------------------|-----|----------------------------------------|
| 1 | <u>0</u> | 17 | <u>0</u> |
| 2 | <u>0</u> | 18 | <u>0</u> |
| 3 | <u>0</u> | 19 | <u>0</u> |
| 4 | <u>0</u> | 20 | <u>0</u> |
| 5 | <u>0</u> | 21 | <u>0</u> |
| 6 | <u>0</u> | 22 | <u>0</u> |
| 7 | <u>0</u> | 23 | <u>0</u> |
| 8 | <u>0</u> | 24 | <u>0</u> |
| 9 | <u>0</u> | 25 | <u>0</u> |
| 10 | <u>0</u> | 26 | <u>0</u> |
| 11 | <u>0</u> | 27 | <u>0</u> |
| 12 | <u>0</u> | 28 | <u>0</u> |
| 13 | <u>0</u> | 29 | <u>0</u> |
| 14 | <u>0</u> | 30 | <u>0</u> |
| 15 | <u>0</u> | 31 | <u>0</u> |
| 16 | <u>0</u> | | |

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-260
 Unit Two
 PREPARED BY S. A. Ratliff
 TELEPHONE (205) 729-2937

MONTH DECEMBER 1991

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|----------------------------------------|-----|----------------------------------------|
| 1 | <u>1093</u> | 17 | <u>1095</u> |
| 2 | <u>1110</u> | 18 | <u>1095</u> |
| 3 | <u>1078</u> | 19 | <u>1098</u> |
| 4 | <u>1056</u> | 20 | <u>1102</u> |
| 5 | <u>1102</u> | | <u>1084</u> |
| 6 | <u>1018</u> | 22 | <u>1093</u> |
| 7 | <u>676</u> | 23 | <u>1098</u> |
| 8 | <u>803</u> | 24 | <u>1100</u> |
| 9 | <u>0</u> | 25 | <u>1093</u> |
| 10 | <u>0</u> | 26 | <u>1095</u> |
| 11 | <u>588</u> | 27 | <u>1101</u> |
| 12 | <u>860</u> | 28 | <u>1091</u> |
| 13 | <u>915</u> | 29 | <u>1096</u> |
| 14 | <u>898</u> | 30 | <u>1095</u> |
| 15 | <u>1094</u> | 31 | <u>1106</u> |
| 16 | <u>1090</u> | | |

NOTE: Net generation values are based on manual readings from an integrating watt hour meter. Small differences in the time of day of manual recording may cause the values to vary slightly.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-296

UNIT Three

PREPARED BY S. A. Ratliff

TELEPHONE (205) 729-2937

MONTH DECEMBER 1991

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|----------------------------------------|-----|----------------------------------------|
| 1 | <u>0</u> | 17 | <u>0</u> |
| 2 | <u>0</u> | 18 | <u>0</u> |
| 3 | <u>0</u> | 19 | <u>0</u> |
| 4 | <u>0</u> | 20 | <u>0</u> |
| 5 | <u>0</u> | 21 | <u>0</u> |
| 6 | <u>0</u> | 22 | <u>0</u> |
| 7 | <u>0</u> | 23 | <u>0</u> |
| 8 | <u>0</u> | 24 | <u>0</u> |
| 9 | <u>0</u> | 25 | <u>0</u> |
| 10 | <u>0</u> | 26 | <u>0</u> |
| 11 | <u>0</u> | 27 | <u>0</u> |
| 12 | <u>0</u> | 28 | <u>0</u> |
| 13 | <u>0</u> | 29 | <u>0</u> |
| 14 | <u>0</u> | 30 | <u>0</u> |
| 15 | <u>0</u> | 31 | <u>0</u> |
| 16 | <u>0</u> | | |

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OPERATING DATA REPORT

DOCKET NO. 50-259
 PREPARED BY E. A. Ratliff
 TELEPHONE (205) 789-2937

OPERATING STATUS

1. Unit Name: Browns Ferry Unit One
2. Reporting Period: DECEMBER 1991
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1065
6. Maximum Dependable Capacity (Gross MWe): 1098.4
7. Maximum Dependable Capacity (Net MWe): 1065
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A

Notes

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

| | This Month | Yr-to-Date | Cumulative |
|----------------------------------------------------------------------------------------------|------------|------------|------------|
| 11. Hours in Reporting Period | 744 | 8760 | 152744 |
| 12. Number of Hours Reactor Was Critical | 0 | 0 | 59521 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 6997 |
| 14. Hours Generator On-Line | 0 | 0 | 58267 |
| 15. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 0 | 0 | 168066787 |
| 17. Gross Electrical Energy Generated (MWH) | 0 | 0 | 55398130 |
| 18. Net Electrical Energy Generated (MWH) | -2104 | -25980 | 53535490 |
| 19. Unit Service Factor | 0 | 0 | 38.1 |
| 20. Unit Availability Factor | 0 | 0 | 38.1 |
| 21. Unit Capacity Factor (Using MDC Net) | 0 | 0 | 32.9 |
| 22. Unit Capacity Factor (Using DER Net) | 0 | 0 | 32.9 |
| 23. Unit Forced Outage Rate | 100 | 100 | 56.5 |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>N/A</u> | | | |

25. If Shut Down At End Of Report Period, Estimated Date of Startup: To be determined

OPERATING DATA REPORT

DOCKET NO. 50-260
 PREPARED BY S. A. Ratliff
 TELEPHONE (205) 729-2937

OPERATING STATUS

1. Unit Name: Browns Ferry Unit Two
2. Reporting Period: DECEMBER 1991
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1065
6. Maximum Dependable Capacity (Gross MWe): 1098.4
7. Maximum Dependable Capacity (Net MWe): 1065
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A

Notes

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

| | This Month | Yr-to-Date | Cumulative |
|----------------------------------------------------------------------------------------------|------------|------------|------------|
| 11. Hours in Reporting Period | 744.0 | 8760.0 | 147631 |
| 12. Number of Hours Reactor Was Critical | 701.3 | 4646.3 | 60506 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 14200 |
| 14. Hours Generator On-Line | 696.1 | 4128.5 | 58467 |
| 15. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 2145488.7 | 11830688.4 | 165075855 |
| 17. Gross Electrical Energy Generated (MWH) | 733340.0 | 3898010.0 | 54669808 |
| 18. Net Electrical Energy Generated (MWH) | 715130.0 | 3759138.0 | 52810259 |
| 19. Unit Service Factor | 93.6 | 47.1 | 39.6 |
| 20. Unit Availability Factor | 93.6 | 47.1 | 39.6 |
| 21. Unit Capacity Factor (Using MDC Net) | 90.3 | 40.3 | 33.6 |
| 22. Unit Capacity Factor (Using DER Net) | 90.3 | 40.3 | 33.6 |
| 23. Unit Forced Outage Rate | 6.4 | 51.8 | 53.5 |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>N/A</u> | | | |

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A

OPERATING DATA REPORT

DOCKET NO. 50-296
PREPARED BY S. A. Eatliff
TELEPHONE (205) 729-2937

OPERATING STATUS

1. Unit Name: Browns Ferry Unit Three
2. Reporting Period: DECEMBER 1991
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1065
6. Maximum Dependable Capacity (Gross MWe): 1098.4
7. Maximum Dependable Capacity (Net MWe): 1065
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A

Notes

9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

| | This Month | Yr-to-Date | Cumulative |
|----------------------------------------------------------------------------------------------|------------|------------|------------|
| 11. Hours in Reporting Period | 744 | 8760.0 | 130056 |
| 12. Number of Hours Reactor Was Critical | 0 | 0 | 45306 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 5150 |
| 14. Hours Generator On-Line | 0 | 0 | 44195 |
| 15. Unit Reserve Shut down Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 0 | 0 | 131868267 |
| 17. Gross Electrical Energy Generated (MWH) | 0 | 0 | 43473760 |
| 18. Net Electrical Energy Generated (MWH) | -1629 | -19727.0 | 41952809 |
| 19. Unit Service Factor | 0 | 0 | 34.0 |
| 20. Unit Availability Factor | 0 | 0 | 34.0 |
| 21. Unit Capacity Factor (Using MDC Net) | 0 | 0 | 30.3 |
| 22. Unit Capacity Factor (Using DER Net) | 0 | 0 | 30.3 |
| 23. Unit Forced Outage Rate | 100 | 100 | 61.0 |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>N/A</u> | | | |

25. If Shut Down At End Of Report Period, Estimated Date of Startup: To be determined

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1991DOCKET NO: 50-259UNIT NAME: OnePREPARED BY: S. A. RatliffTELEPHONE: (205) 729 2937

| No. | Date | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | Licensee Event Report No. | System Code ⁴ | Component Code ⁵ | Cause and Corrective Action to Prevent Recurrence |
|-----|----------|-------------------|---------------------|---------------------|----------------------------------------------------|---------------------------------|-----------------------------|--------------------------------|--------------------------------------------------------------------|
| 315 | 06/01/85 | F | 744 | F | 4 | | | | Administrative hold to resolve various TVA and NRC concerns. |

¹F: Forced
S: Scheduled
²Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training and License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Continuation of Existing Outage
 5-Reduction
 9-Other

⁴Exhibit G-Instructions
 for Preparation of Data
 Entry sheets for Licensee
 Event Report (LER) File
 (NUREG-061)

⁵Exhibit I-Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1991DOCKET NO: 50-260UNIT NAME: TwoCOMPLETED BY: S. A. RatliffTELEPHONE: (205) 729-2937

| No. | Date | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | Licensee Event Report No. | System Code ⁴ | Component Code ⁵ | Cause and Corrective Action to Prevent Recurrence |
|-----|---------|-------------------|---------------------|---------------------|----------------------------------------------------|---------------------------------|-----------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------|
| 13 | 12-6-91 | S | 22.7 | B | 5 | | | | Reduced load to 53 percent power to remove "A" high pressure feedwater heater string for maintenance. |
| 14 | 12-8-91 | F | 47.9 | A | 3 | | | | Failed fuse in generator protection system. |

¹F: Forced
S: Scheduled
²Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training and License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Continuation of Existing Outage
 5-Reduction
 9-Other

⁴Exhibit G-Instructions
 for Preparation of Data
 Entry sheets for Licensee
 Event Report (LER) File
 (NUREG-061)

⁵Exhibit I-Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1991DOCKET NO: 50-296UNIT NAME: ThreeCOMPLETED BY: S. A. RatliffTELEPHONE: (205) 729-2937

| No. | Date | Type ¹ | Duration (Hours) | Reason ² | Method of Shutting Down Reactor ³ | Licensee Event Report No. | System Code ⁴ | Component Code ⁵ | Cause and Corrective Action to Prevent Recurrence |
|-----|----------|-------------------|---------------------|---------------------|----------------------------------------------------|---------------------------------|-----------------------------|--------------------------------|--------------------------------------------------------------------|
| 157 | 03/03/85 | F | 744 | F | 4 | | | | Administrative hold to resolve various TVA and NRC concerns. |

¹F: Forced
S: Scheduled

²Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

⁴Exhibit G-Instructions
for Preparation of Data
Entry sheets for Licensee
Event Report (LER) File
(NUREG-061)

⁵Exhibit I-Same Source