

Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609

June 14, 2000

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) - MAY 2000 MONTHLY OPERATING REPORT

The enclosure provides the May 2000 Monthly Operating Report as required by BFN Technical Specifications Section 5.6.4.

If you have any questions concerning this report, please call me at (256) 729-2636.

Sincerely E. Abn Τ. Manager of Licensing and Industry Affairs Enclosure cc: See page



NRR-063

U.S. Nuclear Regulatory Commission Page 2 June 14, 2000

Enclosure cc (Enclosure): Mr. Paul E. Fredrickson, Branch Chief U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, S.W. Suite 23T85 Atlanta, Georgia 30303

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#### ENCLOSURE

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# TENNESSEE VALLEY AUTHORITY BROWNS FERRY NUCLEAR PLANT (BFN)

MONTHLY OPERATING REPORT

MAY 2000

UNIT 1

DOCKET NUMBER 50-259

LICENSE NUMBER DPR-33

UNIT 2

DOCKET NUMBER 50-260

LICENSE NUMBER DPR-52

UNIT 3

DOCKET NUMBER 50-296

LICENSE NUMBER DPR-68

#### OPERATIONAL SUMMARY MAY 2000

#### BROWNS FERRY NUCLEAR PLANT UNIT 1

Unit 1 remains shutdown on administrative hold to resolve various TVA and NRC concerns. Unit 1 has been on administrative hold since June 1, 1985. As a result, TVA considers that accrual of reporting hours is suspended since the unit has a maximum dependable capacity (MDC) of zero MWe. Accordingly, TVA does not report cumulative hours for the period beginning June 1, 1985, when calculating the operating status variables.

#### BROWNS FERRY NUCLEAR PLANT UNIT 2

For the month of May, Unit 2 generated 849,600 megawatt hours gross electrical power and operated at a net capacity factor of 100.0 percent MDC. As of May 31, 2000, Unit 2 has operated continuously for 256 days.

#### BROWNS FERRY NUCLEAR PLANT UNIT 3

For the month of May, Unit 3 generated 680,710 megawatt hours gross electrical power with a net capacity factor of 79.9 percent MDC.

As the month of May began, Unit 3 was in its Cycle 9 refueling outage which began on April 15, 2000. On May 3, 2000, Unit 3 was restarted and power ascension began.

On May 24, 2000, at 1354 hours, Unit 3 scrammed due to indicated reactor low-water level during surveillance testing. The root cause for the scram was an inadequate procedure because the procedure did not contain the specific valving sequence to reduce the risk of inducing perturbations into a reactor instrument sensing line. The corrective action to preclude a recurrence of this event is to revise the instrument procedure to include specific valve sequencing steps. On May 25, 2000, at 2344 hours, the unit was tied to the grid and has operated continuously for six days.

# AVERAGE DAILY UNIT POWER LEVEL

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| DOCKET NO.  | 50-259  | UNIT NO. | ONE DATE: | JUNE 5, 2000 |  |
|-------------|---------|----------|-----------|--------------|--|
| COMPLETED B | Y: J.E. | Wallace  | TELEPHONE | 256-729-7874 |  |
| MONTH MAY   | 2000    |          |           |              |  |

AVERAGE DAILY POWER LEVEL AVERAGE DAILY POWER LEVEL

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

# AVERAGE DAILY UNIT POWER LEVEL

| DOCKET NO. | 50-260    | UNIT NO. | TWO DATE: | JUNE 5, 2000 |
|------------|-----------|----------|-----------|--------------|
| COMPLETED  | BY: J. E. | Wallace  | TELEPHONE | 256-729-7874 |
| MONTH M2   | AY 2000   |          |           |              |

AVERAGE DAILY POWER LEVEL AVERAGE DAILY POWER LEVEL

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| DAY | (MWe-Net) | DAY | (MWe-Net) |
|-----|-----------|-----|-----------|
| 1.  | 1130      | 17. | 1112      |
| 2.  | 1123      | 18. | 1109      |
| 3.  | 1112      | 19. | 1115      |
| 4.  | 1096      | 20. | 1117      |
| 5.  | 1129      | 21. | 1118      |
| 6.  | 1133      | 22. | 1115      |
| 7.  | 1035      | 23. | 1118      |
| 8.  | 1130      | 24. | 1119      |
| 9.  | 1132      | 25. | 1119      |
| 10. | 1129      | 26. | 1115      |
| 11. | 1126      | 27. | 1120      |
| 12  | 1129      | 28. | 1120      |
| 13. | 1127      | 29. | 1118      |
| 14. | 1127      | 30. | 1118      |
| 15. | 1119      | 31. | 1122      |
| 16. | 1118      |     |           |

# AVERAGE DAILY UNIT POWER LEVEL

| DOCKET  | NO.  | 50-2 | 296 | -  | UNIT NO. | THREE | DATE:  | JUNE 5, 2000 |
|---------|------|------|-----|----|----------|-------|--------|--------------|
| COMPLET | ED E | BY:  | J.  | Ε. | Wallace  | TELI  | EPHONE | 256-729-7874 |
| MONTH   | MAY  | 2000 | )   |    |          |       |        |              |

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AVERAGE DAILY POWER LEVEL AVERAGE DAILY POWER LEVEL

| DAY | (MWe-Net) | DAY | (MWe-Net) |
|-----|-----------|-----|-----------|
| 1.  | 0         | 17. | 1120      |
| 2.  | 0         | 18. | 1118      |
| 3.  | 49        | 19. | 1118      |
| 4.  | 286       | 20. | 1121      |
| 5.  | 549       | 21. | 1119      |
| 6.  | 933       | 22. | 1119      |
| 7.  | 1050      | 23. | 1117      |
| 8.  | 1127      | 24. | 547       |
| 9.  | 1129      | 25. | 95        |
| 10. | 1128      | 26. | 785       |
| 11. | 1131      | 27. | 1102      |
| 12  | 1122      | 28. | 1098      |
| 13. | 1058      | 29. | 1099      |
| 14. | 1121      | 30. | 1100      |
| 15. | 1123      | 31. | 1099      |
| 16. | 1123      |     |           |

## **OPERATING DATA REPORT**

|    |  | Docket No.<br>Date:<br>Completed By:<br>Telephone: | <u>50-259</u><br>June 5, 2000<br>J. E. Wallace<br>(256) 729-7874 |
|----|--|--|--|
| 1. | Unit Name:                               | <u>BFN Unit 1</u>                                  |  |
| 2. | Reporting Period:                        | <u>MAY 2000</u>                                    |  |
| 3. | Licensed Thermal Power (MWt):            | <u>3293</u>  |  |
| 4. | Nameplate Rating (Gross Mwe):            | 1152   |  |
| 5. | Design Electrical Rating (Net Mwe):      | 1065   |  |
| 6. | Maximum Dependable Capacity (Gross MWe): | <u>0</u>   |  |
| 7. | Maximum Dependable Capacity (Net MWe):   | <u>0</u>   |  |

- 8. If changes Occur in Capacity Rating (Item Numbers 3 Through 7) Since Last Report, Give Reasons: N/A
- 9. Power Level To Which Restricted, If any (net MWe): 0

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10. Reasons for Restrictions, If any: Administrative Hold

|     |                                       | <u>This Month</u> | <u>Yr-To-Date</u> | Cumulative*      |
|-----|---------------------------------------|-------------------|-------------------|------------------|
| 11. | Hours in Reporting Period             | 0                 | 0                 | 95743            |
| 12. | Number of Hours Reactor was Critical  | 0                 | 0                 | 59521            |
| 13. | Reactor Reserve Shutdown Hours        | 0                 | 0                 | <u> </u>         |
| 14. | Hours Generator On-Line               | 0                 | 0                 | <u>58267</u>     |
| 15. | Unit Reserve Shutdown Hours           | 0                 | 0                 | 0                |
| 16. | Gross Thermal Energy Generated (MWh)  | 0                 | 0                 | <u>168066787</u> |
| 17. | Gross Electric Energy Generated (MWh) | 0                 | 0                 | <u>55398130</u>  |
| 18. | Net Electrical Energy Generated (MWh) | 0                 | 0                 | <u>53796427</u>  |
| 19. | Unit Service Factor                   | 0                 | 0                 | <u> </u>         |
| 20. | Unit Availability Factor              | 0                 | 0                 | <u> </u>         |
| 21. | Unit Capacity Factor (Using MDC Net)  | 0                 | 0                 | 52.8             |
| 22. | Unit Capacity Factor (Using DER Net)  | 0                 | 0                 | 52.8             |
| 23. | Unit Forced Outage Rate               | 0                 | 0                 | 25.6             |

- 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): N/A
- 25. If Shutdown at End of Report Period, Estimate Date of Startup: **To Be Determined** 
  - \* Excludes hours under Administrative Hold (June 1, 1985 to present)

## **OPERATING DATA REPORT**

|    |  | Docket No.<br>Date:<br>Completed By:<br>Telephone: | <u>50-260</u><br>June 5, 2000<br>J. E. Wallace<br>(256) 729-7874 |
|----|--|--|--|
| 1. | Unit Name:                               | BFN Unit 2   |  |
| 2. | Reporting Period:                        | <u>MAY 2000</u>                                    |  |
| 3. | Licensed Thermal Power (MWt):            | <u>3458</u>  |  |
| 4. | Nameplate Rating (Gross Mwe):            | <u>1190</u>  |  |
| 5. | Design Electrical Rating (Net Mwe):      | <u>1120</u>  |  |
| 6. | Maximum Dependable Capacity (Gross MWe): | 1155   |  |
| 7. | Maximum Dependable Capacity (Net MWe):   | <u>1118</u>  |  |

- 8. If changes Occur in Capacity Rating (Item Numbers 3 Through 7) Since Last Report, Give Reasons: N/A
- 9. Power Level To Which Restricted, If any (net MWe): N/A
- 10. Reasons for Restrictions, If any: N/A

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|     |                                       | <u>This Month</u> | <u>Yr-To-Date</u> | <u>Cumulative*</u> |
|-----|---------------------------------------|-------------------|-------------------|--------------------|
| 11. | Hours in Reporting Period             | 744.0             | 3647.0            | <u> </u>           |
| 12. | Number of Hours Reactor was Critical  | 744.0             | 3647.0            | 127224             |
| 13. | Reactor Reserve Shutdown Hours        | 0.0               | 0.0               | 14200              |
| 14. | Hours Generator On-Line               | 744.0             | 3647.0            | 124775             |
| 15. | Unit Reserve Shutdown Hours           | 0.0               | 0.0               | 0                  |
| 16. | Gross Thermal Energy Generated (MWh)  | 2568456           | 12575223          | 377673391          |
| 17. | Gross Electric Energy Generated (MWh) | 849600            | 4212350           | 125529538          |
| 18. | Net Electrical Energy Generated (MWh) | 831582            | 4121752           | 122215198          |
| 19. | Unit Service Factor                   | 100.0             | 100.0             | 73.6               |
| 20. | Unit Availability Factor              | 100.0             | 100.0             | 73.6               |
| 21. | Unit Capacity Factor (Using MDC Net)  | 100.0             | 101.1             | 67.5               |
| 22. | Unit Capacity Factor (Using DER Net)  | 99.8              | 100.9             | 67.5               |
| 23. | Unit Forced Outage Rate               | 0.0               | 0.0               | 12.2               |

- 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): In accordance with Generic Letter 97-02, this information is no longer required by NRC.
- 25. If Shutdown at End of Report Period, Estimate Date of Startup: N/A
  - \* Excludes hours under Administrative Hold (June 1, 1985 to May 24, 1991)

# **OPERATING DATA REPORT**

|    |  | Docket No.      | <u>50-296</u>         |
|----|--|-----------------|-----------------------|
|    |  | Date:           | June 5, 2000          |
|    |  | Completed By:   | J. E. Wallace         |
|    |  | Telephone:      | <u>(256) 729-7874</u> |
| 1. | Unit Name:                               | BFN Unit 3      |                       |
| 2. | Reporting Period:                        | <b>MAY 2000</b> |                       |
| 3. | Licensed Thermal Power (MWt):            | <u>3458</u>     |                       |
| 4. | Nameplate Rating (Gross Mwe):            | <u>1190</u>     |                       |
| 5. | Design Electrical Rating (Net Mwe):      | <u>1120</u>     |                       |
| 6. | Maximum Dependable Capacity (Gross MWe): | <u>1155</u>     |                       |
| 7. | Maximum Dependable Capacity (Net MWe):   | <u>1118</u>     |                       |

- 8. If changes Occur in Capacity Rating (Item Numbers 3 Through 7) Since Last Report, Give Reasons: N/A
- 9. Power Level To Which Restricted, If any (net MWe): N/A
- 10. Reasons for Restrictions, If any: N/A

|     |                                       | <u>This Month</u> | <u>Yr-To-Date</u> | <u>Cumulative*</u> |
|-----|---------------------------------------|-------------------|-------------------|--------------------|
| 11. | Hours in Reporting Period             | 744.0             | 3647.0            | 112764             |
| 12. | Number of Hours Reactor was Critical  | <u> </u>          | <u> </u>          | 82934              |
| 13. | Reactor Reserve Shutdown Hours        | 0.0               | <u> </u>          | 8337               |
| 14. | Hours Generator On-Line               | <u> </u>          | <u> </u>          | <u> </u>           |
| 15. | Unit Reserve Shutdown Hours           | 0.0               | 0.0               | 0.0                |
| 16. | Gross Thermal Energy Generated (MWh)  | 2079300           | <u>10533417</u>   | 252358878          |
| 17. | Gross Electric Energy Generated (MWh) | <u> </u>          | 3494940           | <u>84302990</u>    |
| 18. | Net Electrical Energy Generated (MWh) | <u> </u>          | <u> </u>          | <u>81235778</u>    |
| 19. | Unit Service Factor                   | <u> </u>          | <u> </u>          | 72.3               |
| 20. | Unit Availability Factor              | 86.4              | <u> </u>          | 72.3               |
| 21. | Unit Capacity Factor (Using MDC Net)  | <u> </u>          | 83.7              | <u> </u>           |
| 22. | Unit Capacity Factor (Using DER Net)  | <u> </u>          | 83.6              | <u> </u>           |
| 23. | Unit Forced Outage Rate               | 5.0               | <u> </u>          | 13.2               |

- 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): In accordance with Generic Letter 97-02, this information is no longer required by NRC.
- 25. If Shutdown at End of Report Period, Estimate Date of Startup: N/A
  - \* Excludes hours under Administrative Hold (June 1, 1985 to November 19, 1995)

#### UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2000

| DOCKET NO:           | 50-259         |
|----------------------|----------------|
| UNIT NAME:           | BFN-1          |
| DATE:                | June 5, 2000   |
| <b>COMPLETED BY:</b> | J. E. Wallace  |
| <b>TELEPHONE:</b>    | (256) 729-7874 |

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

<sup>3</sup> Method <sup>1</sup> F: Forced <sup>2</sup> Reason: A-Equipment Failure (Explain) 1-Manual S: Scheduled B-Maintenance or Test 2-Manual Scram C-Refueling 3-Automatic Scram **D-Regulatory Restriction** 4-Continuation of Existing E-Operator Training and License Outage Examination 5-Reduction **F-Administrative** 9-Other G-Operational Error (Explain) H-Other (Explain)

<sup>4</sup> Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) (NUREG - 1022)

## UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2000

| <b>DOCKET NO:</b>    | 50-260         |
|----------------------|----------------|
| UNIT NAME:           | BFN-2          |
| DATE:                | June 5, 2000   |
| <b>COMPLETED BY:</b> | J. E. Wallace  |
| <b>TELEPHONE:</b>    | (256) 729-7874 |

| No.                                    | Date | Type  | Duration<br>(Hours) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down<br>Reactor <sup>3</sup> | Licensee<br>Event Report<br>No.  | System<br>Code <sup>4</sup> | Component<br>Code <sup>4</sup>                     | Cause and Corrective Action to<br>Prevent Recurrence                              |
|--|------|---|---------------------|---------------------|---|--|-----------------------------|--|---|
| N/A                                    |      |   |                     |                     |   |  |                             |  |   |
| <sup>1</sup> F: Forced<br>S: Scheduled |      | <ul> <li><sup>2</sup> Reason:         <ul> <li>A-Equipment Failure (Explain)</li> <li>B-Maintenance or Test</li> <li>C-Refueling</li> <li>D-Regulatory Restriction</li> <li>E-Operator Training and License</li> <li>Examination</li> <li>F-Administrative</li> <li>G-Operational Error (Explain)</li> <li>H-Other (Explain)</li> </ul> </li> </ul> |                     |                     |   | <sup>3</sup> Mcthod<br>1-Manual<br>2-Manual Scram<br>3-Automatic Scram<br>4-Continuation of Exis<br>Outage<br>5-Reduction<br>9-Other | sting                       | <sup>4</sup> Instruc<br>Data E<br>Event F<br>(NURE | tions for Preparation of<br>ntry sheets for Licensee<br>Report (LER)<br>G - 1022) |

#### UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2000

| DOCKET NO:           | 50-296         |
|----------------------|----------------|
| UNIT NAME:           | BFN-3          |
| DATE:                | June 5, 2000   |
| <b>COMPLETED BY:</b> | J. E. Wallace  |
| <b>TELEPHONE:</b>    | (256) 729-7874 |

| No. | Date    | Type <sup>1</sup> | Duration<br>(Hours) | Reason <sup>2</sup> | Method of<br>Shutting<br>Down<br>Reactor <sup>3</sup> | Licensee<br>Event Report<br>No. | System<br>Code <sup>4</sup> | Component<br>Code <sup>4</sup> | Cause and Corrective Action to Prevent<br>Recurrence   |
|-----|---------|-------------------|---------------------|---------------------|---|---------------------------------|-----------------------------|--------------------------------|--|
| 4   | 5/24/00 | F                 | 33.83               | В                   | 3   | 296/2000-005                    | JC                          | LT                             | On May 24, 2000, at 1354 hours, Unit 3<br>scrammed due to indicated reactor low-<br>water level during surveillence testing. The<br>root cause for the scram was an inadequate<br>procedure because the procedure did not<br>contain the specific valving sequence to<br>reduce the risk of inducing perturbations<br>into its reactor instrument sensing line. The<br>corrective action to preclude a recurrence is<br>to revise the procedure to include specific<br>valve sequencing steps. On May 25, 2000,<br>at 2344 hours, the unit was tied to the grid. |

<sup>1</sup> F: Forced
 <sup>2</sup> Reason:
 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)

<sup>3</sup> Method
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other  <sup>4</sup> Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) (NUREG - 1022)