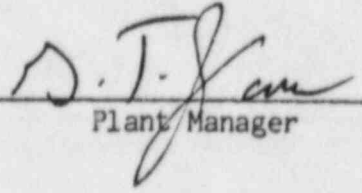


TENNESSEE VALLEY AUTHORITY  
DIVISION OF NUCLEAR POWER  
BROWNS FERRY NUCLEAR PLANT

MONTHLY OPERATING REPORT TO NRC  
October 1, 1984 - October 31, 1984

DOCKET NUMBERS 50-259, 50-260, AND 50-296  
LICENSE NUMBERS DPR-33, DPR-52, AND DPR-68

Submitted by:

  
Plant Manager

8412120200 841031  
PDR ADOCK 05000259  
R PDR

IE 24  
1/1

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## Operations Summary

October 1984

The following summary describes the significant operation activities during the reporting period. In support of this summary, a chronological log of significant events is included in this report.

There were five reportable occurrences and no revisions to previous reportable occurrences reported to the NRC during the month of October.

### Unit 1

There were no scrams on the unit during the month.

### Unit 2

The unit was in cold shutdown the entire month for the unit's end-of-cycle 5 refueling outage.

### Unit 3

The unit was in cold shutdown the entire month for the unit's end-of-cycle 5 refueling outage.

Prepared principally by B. L. Porter.

Operations Summary (Continued)

October 1984

Fatigue Usage Evaluation

The cumulative usage factors for the reactor vessel are as follows:

| <u>Location</u>     | <u>Usage Factor</u> |               |               |
|---------------------|---------------------|---------------|---------------|
|                     | <u>Unit 1</u>       | <u>Unit 2</u> | <u>Unit 3</u> |
| Shell at water line | 0.00611             | 0.00492       | 0.00406       |
| Feedwater nozzle    | 0.29402             | 0.21319       | 0.15444       |
| Closure studs       | 0.23744             | 0.17229       | 0.13860       |

NOTE: This accumulated monthly information satisfies Technical Specification Section 6.6.A.17.B(3) reporting requirements.

Common System

Approximately 1.35E+06 gallons of waste liquids were discharged containing approximately 6.10E-01 curies of activities.

Operations Summary (Continued)

October 1984

Refueling InformationUnit 1

Unit 1 is scheduled for its sixth refueling approximately March 22, 1985 with a scheduled restart date of October 8, 1985. This refueling will involve loading 8x8R (retrofit) fuel assemblies into the core, replacing recirculation piping, work on "A" and "B" low-pressure turbine, upgrade hangers and anchors, and environmentally qualify instrumentations.

There are 764 fuel assemblies in the reactor vessel. The spent fuel storage pool presently contains 252 EOC-5 fuel assemblies, 260 EOC-4 fuel assemblies; 232 EOC-3 fuel assemblies; 156 EOC-2 fuel assemblies; and 168 EOC-1 fuel assemblies. The present fuel pool capacity is 3,471 locations.

Unit 2

Unit 2 was shut down for its fifth refueling outage on September 15, 1984 with a scheduled restart date of January 31, 1985. This refueling outage will involve loading additional 8X8R (retrofit) fuel assemblies into the core, finishing torus modification, turbine inspection, piping inspection, TMI-2 modifications; post-accident sampling facility tie-ins, core spray change-out, and feedwater sparger inspection.

There are no fuel assemblies in the reactor vessel. At month end, there were 764 EOC-5 fuel assemblies, 248 EOC-4 fuel assemblies, 352 EOC-3 fuel assemblies, 156 EOC-2 fuel assemblies, and 132 EOC-1 fuel assemblies in the spent fuel storage pool. The present available capacity of the spent fuel pool is 406 locations. All old racks have been removed from the pool and new HDR's are being installed.

Operations Summary (Continued)

October 1984

Unit 3

Unit 3 shutdown for its fifth refueling outage on September 7, 1983, with a scheduled restart date of November 10, 1984. This refueling involves loading 8X8R (retrofit) assemblies into the core, finishing the torus modifications, postaccident sampling facility tie-in, core spray change-out, TMI-2 modifications, turbine inspection, piping inspections for cracks, and changeout of jet pump hold-down beams.

There are 764 fuel assemblies presently in the reactor vessel. There are 248 EOC-5 fuel assemblies, 280 EOC-4 fuel assemblies, 124 EOC-3 fuel assemblies, 144 EOC-2 fuel assemblies, and 208 EOC-1 fuel assemblies in the spent fuel storage pool. The present available capacity of the spent fuel pool is 914 locations.



Significant Operational Events

| <u>Date</u> | <u>Time</u> | <u>Event</u>   |
|-------------|-------------|--|
|             |             | Unit 1   |
| 10/01       | 0001        | Reactor thermal power at 100-percent (%), maximum flow, rod limited.                       |
| 10/02       | 1400        | Commenced reducing thermal power due to condensate demineralizer problems.                 |
|             | 1415        | Reactor thermal power at 80% due to condensate demineralizer problems.                     |
|             | 1420        | Commenced power ascension from 80% thermal power.  |
|             | 1445        | Reactor thermal power at 96%, holding up on PCIOMR until TIP run is complete.              |
|             | 1830        | Commenced PCIOMR from 96% thermal power.   |
|             | 1939        | Reactor thermal power at 100%, maximum flow, rod limited.                                  |
| 10/06       | 0004        | Commenced reducing thermal power for SI 4.3.A.2 (Control Rod Drive (CRD) Exercise).        |
|             | 0014        | Reactor thermal power at 96% for CRD exercise.   |
|             | 0230        | Commenced PCIOMR from 96% thermal power.   |
|             | 0400        | Reactor thermal power at 98% "R" factor out-of-limits.                                     |
|             | 2330        | Commenced PCIOMR from 98% thermal power.   |
| 10/07       | 0100        | Reactor thermal power at 100%, maximum flow, rod limited.                                  |
| 10/13       | 0145        | Commenced reducing thermal power for SI 4.3.A.2 (Control Rod Exercise).                    |
|             | 0200        | Reactor thermal power at 95% for SI 4.3.A.2.   |
|             | 0320        | SI 4.3.A.2 (Control Rod Exercise) complete, commenced power ascension.                     |
|             | 1500        | Reactor thermal power at 100% maximum flow, rod limited.                                   |
| 10/19       | 1955        | Commenced reducing thermal power for control rod pattern adjustment.                       |
|             | 2400        | Reactor thermal power at 62% for control rod pattern adjustment, increasing thermal power. |
| 10/20       | 0925        | Control rod pattern adjustment complete, commenced power ascension from 77% thermal power. |
|             | 1030        | Commenced PCIOMR from 80% thermal power.   |
| 10/21       | 0630        | Reactor thermal power at 100%, maximum flow, rod limited.                                  |
|             | 1800        | Reactor thermal power at 99%, maximum flow, rod limited.                                   |
|             | 2110        | Commenced power ascension from 99% thermal power.  |
|             | 2200        | Reactor thermal power at 100% maximum flow, rod limited.                                   |

Significant Operational Events

| <u>Date</u>        | <u>Time</u>                              | <u>Event</u>  |
|--------------------|--|---|
| Unit 1 (Continued) |  |   |
| 10/22              | 2300                                     | Reactor thermal power at 99% maximum flow, rod limited.   |
| 10/23              | 0030<br>0100                             | Commenced power ascension from 99% thermal power.<br>Reactor thermal power at 100%, maximum flow, rod limited.  |
| 10/26              | 2202<br><br>2400                         | Commenced reducing thermal power for SI 4.3.A.2 (CRD Exercise).<br>Reactor thermal power at 76% thermal power for SI 4.3.A.2.   |
| 10/27              | 0340<br>0430                             | SI 4.3.A.2 complete, commenced power ascension.<br>Commenced PCIOMR from 78% thermal power.   |
| 10/28              | 0800<br>0830<br><br>1000                 | Reactor thermal power at 100% maximum flow, rod limited.<br>Reactor thermal power at 99% due to Xenon burn-out.<br>Commenced PCIOMR.<br>Reactor thermal power at 100%, maximum flow, rod limited.   |
| 10/29              | 0600<br><br>1002<br>1300<br>1345<br>2200 | Commenced reducing thermal power for removal of "A" reactor feed water pump (RFP) from service for maintenance.<br>Reactor thermal power at 75%, "A" RFP out-of-service for maintenance.<br>Reactor thermal power at 69% for maintenance on "A" RFP.<br>Maintenance complete on "A" RFP, and pump back in service, commenced power ascension.<br>Reactor thermal power at 100% maximum flow, rod limited. |
| 10/31              | 2400                                     | Reactor thermal power at 100% maximum flow, rod limited.  |



Significant Operational Events

| <u>Date</u> | <u>Time</u> | <u>Event</u>                            |
|-------------|-------------|---|
|             |             | Unit 2                                  |
| 10/01       | 0001        | End-of-cycle 5 refuel outage continues. |
| 10/31       | 2400        | End-of-cycle 5 refuel outage continues. |

Significant Operational Events

| <u>Date</u> | <u>Time</u> | <u>Event</u>   |
|-------------|-------------|--|
|             |             | Unit 3   |
| 10/25       | 2147        | End-of-cycle 5 refuel outage complete. Unit startup on hold due to NRC concerns. |
| 10/31       | 2400        | Unit startup on hold due to NRC concerns.  |

## AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-259UNIT Browns Ferry 1DATE 11-01-84COMPLETED BY T. ThomTELEPHONE (205) 729-3834MONTH October 1984DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

|    |      |
|----|------|
| 1  | 1052 |
| 2  | 1051 |
| 3  | 1061 |
| 4  | 1065 |
| 5  | 1050 |
| 6  | 1035 |
| 7  | 1062 |
| 8  | 1062 |
| 9  | 1053 |
| 10 | 1068 |
| 11 | 1050 |
| 12 | 1064 |
| 13 | 1048 |
| 14 | 1053 |
| 15 | 1056 |
| 16 | 1060 |

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

|    |      |
|----|------|
| 17 | 1051 |
| 18 | 1058 |
| 19 | 995  |
| 20 | 832  |
| 21 | 1043 |
| 22 | 1060 |
| 23 | 1055 |
| 24 | 1072 |
| 25 | 1051 |
| 26 | 1036 |
| 27 | 893  |
| 28 | 1034 |
| 29 | 997  |
| 30 | 1073 |
| 31 | 1061 |

## INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

## AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-260UNIT Browns Ferry 2DATE 11-01-84COMPLETED BY T. ThomTELEPHONE (205) 729-3834MONTH October 1984DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

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

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

|    |    |
|----|----|
| 17 | -6 |
| 18 | -6 |
| 19 | -8 |
| 20 | -7 |
| 21 | -8 |
| 22 | -8 |
| 23 | -8 |
| 24 | -7 |
| 25 | -8 |
| 26 | -7 |
| 27 | -8 |
| 28 | -8 |
| 29 | -8 |
| 30 | -7 |
| 31 | -8 |

## INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

11  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-296

UNIT Browns Ferry 3

DATE 11-01-84

COMPLETED BY T. Thom

TELEPHONE (205) 729-3834

MONTH October

DAY      AVERAGE DAILY POWER LEVEL  
            (MWe-Net)

|    |            |
|----|------------|
| 1  | <u>-11</u> |
| 2  | <u>-12</u> |
| 3  | <u>-12</u> |
| 4  | <u>-10</u> |
| 5  | <u>-10</u> |
| 6  | <u>-11</u> |
| 7  | <u>-11</u> |
| 8  | <u>-11</u> |
| 9  | <u>-11</u> |
| 10 | <u>-10</u> |
| 11 | <u>-10</u> |
| 12 | <u>-10</u> |
| 13 | <u>-10</u> |
| 14 | <u>-10</u> |
| 15 | <u>-10</u> |
| 16 | <u>-11</u> |

DAY      AVERAGE DAILY POWER LEVEL  
            (MWe-Net)

|    |            |
|----|------------|
| 17 | <u>-11</u> |
| 18 | <u>-11</u> |
| 19 | <u>-10</u> |
| 20 | <u>-12</u> |
| 21 | <u>-9</u>  |
| 22 | <u>-8</u>  |
| 23 | <u>-9</u>  |
| 24 | <u>-13</u> |
| 25 | <u>-12</u> |
| 26 | <u>-13</u> |
| 27 | <u>-12</u> |
| 28 | <u>-11</u> |
| 29 | <u>-12</u> |
| 30 | <u>-11</u> |
| 31 | <u>-12</u> |

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.



## OPERATING DATA REPORT

DOCKET NO. 50-259  
 DATE 11-01-84  
 COMPLETED BY T. Thom  
 TELEPHONE (205) 729-3834

## OPERATING STATUS

1. Unit Name: Browns Ferry One  
 2. Reporting Period: October 1984  
 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               | <u>745</u>       | <u>7,320</u>      | <u>89,936</u>      |
| 12. Number Of Hours Reactor Was Critical    | <u>745</u>       | <u>6,603.48</u>   | <u>56,409.6</u>    |
| 13. Reactor Reserve Shutdown Hours          | <u>0</u>         | <u>700.20</u>     | <u>6,485.22</u>    |
| 14. Hours Generator On-Line                 | <u>745</u>       | <u>6,458.95</u>   | <u>55,176.59</u>   |
| 15. Unit Reserve Shutdown Hours             | <u>0</u>         | <u>0</u>          | <u>0</u>           |
| 16. Gross Thermal Energy Generated (MWH)    | <u>2,424,554</u> | <u>19,981,494</u> | <u>158,539,173</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>794,160</u>   | <u>6,575,690</u>  | <u>52,221,310</u>  |
| 18. Net Electrical Energy Generated (MWH)   | <u>773,750</u>   | <u>6,401,898</u>  | <u>50,727,225</u>  |
| 19. Unit Service Factor                     | <u>100</u>       | <u>88.2</u>       | <u>61.4</u>        |
| 20. Unit Availability Factor                | <u>100</u>       | <u>88.2</u>       | <u>61.4</u>        |
| 21. Unit Capacity Factor (Using MDC Net)    | <u>97.5</u>      | <u>82.1</u>       | <u>53.0</u>        |
| 22. Unit Capacity Factor (Using DER Net)    | <u>97.5</u>      | <u>82.1</u>       | <u>53.0</u>        |
| 23. Unit Forced Outage Rate                 | <u>0</u>         | <u>11.4</u>       | <u>22.5</u>        |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

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

26. Units In Test Status (Prior to Commercial Operation):

Forecast

Achieved

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

## OPERATING DATA REPORT

DOCKET NO. 50-260  
 DATE 11-01-84  
 COMPLETED BY T. Thom  
 TELEPHONE (205) 729-3834

OPERATING STATUS

1. Unit Name: Browns Ferry Two  
 2. Reporting Period: October 1984  
 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:

Notes

N/A

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  | <u>745</u> | <u>7320</u>       | <u>84,823</u>      |
| 12. Number Of Hours Reactor Was Critical                                       | <u>0</u>   | <u>5,895.85</u>   | <u>55,860.03</u>   |
| 13. Reactor Reserve Shutdown Hours   | <u>0</u>   | <u>300.08</u>     | <u>14,200.44</u>   |
| 14. Hours Generator On-Line  | <u>0</u>   | <u>5,845.52</u>   | <u>54,338.36</u>   |
| 15. Unit Reserve Shutdown Hours  | <u>0</u>   | <u>0</u>          | <u>0</u>           |
| 16. Gross Thermal Energy Generated (MWH)                                       | <u>0</u>   | <u>13,100.122</u> | <u>153,245.167</u> |
| 17. Gross Electrical Energy Generated (MWH)                                    | <u>0</u>   | <u>4,174.510</u>  | <u>50,771.798</u>  |
| 18. Net Electrical Energy Generated (MWH)                                      | <u>0</u>   | <u>4,044.370</u>  | <u>49,302.973</u>  |
| 19. Unit Service Factor  | <u>0</u>   | <u>79.9</u>       | <u>64.1</u>        |
| 20. Unit Availability Factor   | <u>0</u>   | <u>79.9</u>       | <u>64.1</u>        |
| 21. Unit Capacity Factor (Using MDC Net)                                       | <u>0</u>   | <u>51.9</u>       | <u>54.8</u>        |
| 22. Unit Capacity Factor (Using DER Net)                                       | <u>0</u>   | <u>51.9</u>       | <u>54.8</u>        |
| 23. Unit Forced Outage Rate  | <u>0</u>   | <u>4.1</u>        | <u>23.0</u>        |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): |            |                   |                    |

25. If Shut Down At End Of Report Period, Estimated Date of Startup: April 13, 1985

26. Units In Test Status (Prior to Commercial Operation):

|                      | Forecast      | Achieved      |
|----------------------|---------------|---------------|
| INITIAL CRITICALITY  | <u>      </u> | <u>      </u> |
| INITIAL ELECTRICITY  | <u>      </u> | <u>      </u> |
| COMMERCIAL OPERATION | <u>      </u> | <u>      </u> |

## OPERATING DATA REPORT

DOCKET NO. 50-296  
 DATE 11-01-84  
 COMPLETED BY T. Thom  
 TELEPHONE (205) 729-3834

OPERATING STATUS

|   |       |
|---|-------|
| 1. Unit Name: <u>Browns Ferry Three</u>   | Notes |
| 2. Reporting Period: <u>October 1984</u>  |       |
| 3. Licensed Thermal Power (MWt): <u>3293</u>  |       |
| 4. Nameplate Rating (Gross MWe): <u>1152</u>  |       |
| 5. Design Electrical Rating (Net MWe): <u>1065</u>  |       |
| 6. Maximum Dependable Capacity (Gross MWe): <u>1098.4</u>   |       |
| 7. Maximum Dependable Capacity (Net MWe): <u>1065</u>   |       |
| 8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:<br><u>N/A</u> |       |
| 9. Power Level To Which Restricted, If Any (Net MWe): <u>N/A</u>  |       |
| 10. Reasons For Restrictions, If Any: <u>N/A</u>  |       |

|  | This Month | Yr.-to-Date  | Cumulative         |
|--|------------|--------------|--------------------|
| 11. Hours In Reporting Period  | <u>745</u> | <u>7,320</u> | <u>67,248</u>      |
| 12. Number Of Hours Reactor Was Critical                                       | <u>0</u>   | <u>0</u>     | <u>43,087.80</u>   |
| 13. Reactor Reserve Shutdown Hours   | <u>0</u>   | <u>0</u>     | <u>3,878.13</u>    |
| 14. Hours Generator On-Line  | <u>0</u>   | <u>0</u>     | <u>42,193.71</u>   |
| 15. Unit Reserve Shutdown Hours  | <u>0</u>   | <u>0</u>     | <u>0</u>           |
| 16. Gross Thermal Energy Generated (MWH)                                       | <u>0</u>   | <u>0</u>     | <u>126,307.711</u> |
| 17. Gross Electrical Energy Generated (MWH)                                    | <u>0</u>   | <u>0</u>     | <u>41,597.620</u>  |
| 18. Net Electrical Energy Generated (MWH)                                      | <u>0</u>   | <u>0</u>     | <u>40,375.256</u>  |
| 19. Unit Service Factor  | <u>0</u>   | <u>0</u>     | <u>62.7</u>        |
| 20. Unit Availability Factor   | <u>0</u>   | <u>0</u>     | <u>62.7</u>        |
| 21. Unit Capacity Factor (Using MDC Net)                                       | <u>0</u>   | <u>0</u>     | <u>56.4</u>        |
| 22. Unit Capacity Factor (Using DER Net)                                       | <u>0</u>   | <u>0</u>     | <u>56.4</u>        |
| 23. Unit Forced Outage Rate  | <u>100</u> | <u>100</u>   | <u>16.7</u>        |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): |            |              |                    |

|  |                   |                   |
|--|-------------------|-------------------|
| 25. If Shut Down At End Of Report Period, Estimated Date of Startup: <u>November</u> |                   |                   |
| 26. Units In Test Status (Prior to Commercial Operation):                            | Forecast          | Achieved          |
| INITIAL CRITICALITY  | <u>          </u> | <u>          </u> |
| INITIAL ELECTRICITY  | <u>          </u> | <u>          </u> |
| COMMERCIAL OPERATION   | <u>          </u> | <u>          </u> |

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-259UNIT NAME Browns Ferry 1DATE 11-01-84COMPLETED BY T. ThomTELEPHONE (205) 729-3834REPORT MONTH October 1984

| 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 |
|-----|----------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
| 295 | 10-02-84 | F                 |                     | A                   |  |                               |                             |                                | Derated for condensate demineralizer problems.        |
| 296 | 10-19-84 | S                 |                     | H                   |  |                               |                             |                                | Derated for control rod pattern adjustment.           |
| 297 | 10-26-84 | S                 |                     | H                   |  |                               |                             |                                | Derated for CRD exercise.                             |
| 298 | 10-29-84 | F                 |                     | B                   |  |                               |                             |                                | Derated for "A" RFWP maintenance.                     |

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

<sup>2</sup>  
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)

<sup>3</sup>  
Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Other (Explain)

<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

(9/77)

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October 1984DOCKET NO. 50-260UNIT NAME Browns Ferry 2DATE 11-01-84COMPLETED BY T. ThomTELEPHONE (205) 729-3834

| 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 |
|-----|----------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
| 305 | 10-01-84 | S                 | 745                 | C                   | 4  |                               |                             |                                | EOC-5 Refuel outage<br>(Controlled shutdown 9-15-84)  |

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

<sup>2</sup>  
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)

<sup>3</sup>  
Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Other (Explain)

<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

(9/77)



## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October 1984DOCKET NO. 50-296UNIT NAME Browns Ferry 3DATE 11-01-84COMPLETED BY T. ThomTELEPHONE (205) 729-3834

| 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           |
|-----|----------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|---|
| 140 | 10-01-84 | S                 | 745                 | C                   | 4  |                               |                             |                                | EOC-5 Refuel outage continues.<br>(Controlled shutdown 9-07-83) |
| 141 | 10/25/84 | F                 | 122.22              | D                   |  |                               |                             |                                | Unit startup on HOLD due to NRC<br>concerns.                    |

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

<sup>2</sup>  
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)

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Method:  
1-Manual  
2-Manual Scram.  
3-Automatic Scram.  
4-Other (Explain)

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

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

(9/77)

BROWNS FERRY NUCLEAR PLANT UNIT 3

CSSC EQUIPMENT

MECHANICAL MAINTENANCE SUMMARY

For the Month of October 19 84

| DATE    | SYSTEM | COMPONENT              | NATURE OF<br>MAINTENANCE        | EFFECT ON SAFE<br>OPERATION OF<br>THE REACTOR | CAUSE OF<br>MALFUNCTION | RESULTS OF<br>MALFUNCTION          | ACTION TAKEN<br>TO PRECLUDE<br>RECURRENCE  |
|---------|--------|------------------------|---------------------------------|---|-------------------------|------------------------------------|--|
| 1/17/84 | 82     | 3A Diesel<br>Generator | Repair Unit 3A<br>Diesel Engine | None  | Unknown                 | Diesel generator<br>was inoperable | Replaced<br>turbocharger on<br>MR A-260433 |

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of October 1984

Appendix B  
9/29/82

| Date         | System                   | Component    | Nature of Maintenance    | Effect on Safe Operation of The Reactor | Cause of Malfunction      | Results of Malfunction              | Action Taken To Prevent Recurrence                           |
|--------------|--------------------------|--------------|--------------------------|---|---------------------------|-------------------------------------|--|
| 1984<br>10/5 | Standby diesel generator | 1-ANN-82-C   | Replace power supply PCB | None                                    | Shorted power supply PCB  | Annunciators will not test          | Replaced bad PCB<br>MR 318869                                |
| 10/10        | Containment inerting     | 1-IL-76-49-4 | Replace sample pump      | None                                    | Leaking pump              | Sample pumps leaking<br>1 psi/3 sec | Replaced bad pump<br>MR 252015                               |
| 10/25        | Air-conditioning system  | 1-AHU-31-1A  | Replaced timer           | None                                    | Dirty contacts, bad timer | Low flow rate                       | Replaced bad recycle timer and cleaned contacts<br>MR 317936 |

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

Appendix B

9/29/82

For the Month of October 19 84

| Date         | System          | Component     | Nature of Maintenance | Effect on Safe Operation of The Reactor | Cause of Malfunction | Results of Malfunction       | Action Taken To Prevent Recurrence |
|--------------|-----------------|---------------|-----------------------|---|----------------------|------------------------------|------------------------------------|
| 1984<br>10/4 | Cranes & hoists | Refuel bridge | Replace brake coil    | None                                    | Burnt brake coil     | Refuel bridge will not drive | Replaced brake coil<br>MR 064126   |
| 10/9         | Fire protection | 2-ANN-39-000  | Replace PCB           | None                                    | Bad card             | Spurious alarms              | Replaced bad PCB<br>MR 320799      |

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

HF LMSII  
Appendix B  
9/29/82

Month of October 1984

| DATE         | EQUIPMENT                                 | DESCRIPTION     | REPAIRS                     | OPERATIONAL | CAUSE OF MALFUNCTION            | REPAIRS                            | REPAIRS                                       |
|--------------|---|-----------------|-----------------------------|-------------|---------------------------------|------------------------------------|---|
| 1984<br>10/5 | Containment inerting system               | 3-HS-76-69      | Replaced switch             | None        | Bad switch                      | Key lock bypass switch inoperative | Replaced switch<br>MR 168938                  |
| 10/5         | Containment inerting system               | 3-PMP-76-A      | Install pump motor assembly | None        | Defective from manufacturer     | Returned to manufacturer           | Replaced motor/pump assembly<br>MR 141115     |
| 10/13        | Annunciator & sequential events recording | 3-XA-55-8D      | Replace cards               | None        | Power supply cards bad          | Annunciator will not test          | Replaced cards<br>MR 320548                   |
| 10/15        | 48V dc power system                       | 3-CHRG-251-B    | Replaced fuses and contacts | None        | Blown fuses and pitted contacts | Voltage dropped to 46 volts        | Replaced fuses and contacts<br>MR 319460      |
| 10/17        | Annunciator & sequential events recording | 3-ANN-55-3      | Replaced inverter           | None        | Bad inverter                    | Annunciator will not test          | Replaced inverter<br>MR 319480                |
| 10/23        | Containment inerting system               | 3-IL-076-0049-4 | Replaced pump               | None        | Bad pump                        | Sample pump not running            | Replaced pump<br>MR 303506                    |
| 10/28        | Standby diesel generator                  | 3-MTR-82-B      | Installed motor             | None        | Bad compressor                  | Compressor "B" not running         | Replaced motor on "A" compressor<br>MR 308864 |



BROWN'S FERRY NUCLEAR PLANT UNIT 3CSSC EQUIPMENT

## ELECTRICAL MAINTENANCE SUMMARY

For the Month of October 1984Page 3  
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Appendix B  
9/29/82

| Date         | System               | Component        | Nature of Maintenance    | Effect on Safe Operation of the Reactor | Cause of Malfunction | Results of Malfunction                    | Remarks                                      |
|--------------|----------------------|------------------|--------------------------|---|----------------------|---|--|
| 1984<br>7/30 | Control rod drive    | 3-HCU-85-22-11   | Replace level switch     | None                                    | Switch grounded      | Gives false high water level alarm        | Replaced bad level switch<br>MR 314183       |
| 8/26         | Containment inerting | 3-PMP-76-00A     | Replace motor and pump   | None                                    | Bad pump and motor   | To be returned to manufacturer for repair | Replaced bad pump and motor<br>MR 130689     |
| 8/30         | Containment inerting | 3-PMP-76-00B     | Replace motor and pump   | None                                    | Bad pump and motor   | To be returned to manufacturer for repair | Replaced bad pump and motor<br>MR 141431     |
| 9/27         | RCIC                 | 3-TS-71-23       | Replaced flex conduit    | None                                    | None                 | Relocated instruments                     | Replaced flex conduit<br>MR 310974           |
| 9/29         | Fire protection      | 3-PNL-039-25-305 | Replaced battery charger | None                                    | Bad rectifier        | Low voltage and low specific gravity      | Replaced battery charger<br>MR 303115 330000 |

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT  
OCTOBER 1984

I. Unit 3 Work Synopsis

By the close of the October report period, the unit 3 outage had progressed through day number 421. All preparations for startup had been reported complete by October 27, 1984, when the startup was put on hold to resolve procedural questions.

II. Unit 3 Summary of Major Activities

The following major work activities were completed during the month of October in preparation for startup:

- A. Diesel generator 3A turbocharger repairs were completed October 21, 1984
- B. P5099 HPCI temperature switch repositioning modification
- C. P3061 Replace level switches LS-73-56A and 56B
- D. P3106 Replace flow transmitter FT-84-17 and -20 per NRC Report 79-01B
- E. P3087 Replace level switches LS-73-57A and 57B
- F. P533 Torus temperature monitoring system installation (worked in conjunction with P0126)
- G. P0126 Install ECCS ATU inverters (in support of P0533)
- H. P0631 Move radiation monitor element in RHRSW tunnel
- I. P5181 Unistrut supports for drywell instrumentation tubing
- J. P0684 Drywell to torus vacuum breakers
- K. P0691 64-system valve modification to make flange sides testable
- L. 257 work plans that were designated as startup prerequisites were dispositioned this month.

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT  
OCTOBER 1984

III. Unit 2 Work Synopsis

The unit 2 outage which began September 15, 1984, progressed through day number 417 by the end of the October report period.

IV. Unit 2 Summary of Major Activities

The following is a partial listing of significant work activities performed in support of the unit 2 cycle 6 outage effort during the October report period.

- A. Completed unit 2 reactor vessel disassembly for fuel unload (October 1, 1984). In-vessel nozzle flushes were begun.
- B. Completed fuel unload (October 13, 1984). Preparations for fuel sipping have started.
- C. Low-pressure (LP) "A" turbine spindle was shipped to the TVA Power Service Shop on October 14, 1984. General Electric is to inspect the LP "C" spindle on site in early November.
- D. Control blade uncoupling and other preparations for control rod drive changeout work was performed.
- E. Turbine bearing inspections have been reported complete.
- F. Flushes were performed on drywell instrument, vent and drain lines in an effort to reduce radiation exposure. General improvement was noted.
- G. Eddy-current inspections of selected unit 2 heat exchangers was begun during the October report period. The 2D RHR heat exchanger has been checked, plugged and returned to available-for-service status.

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT  
OCTOBER 1984

V. Outage Planning and Scheduling

With the decline in unit 3 outage planning and scheduling requirements, a portion of the emphasis can be shifted to unit 1 cycle 6 efforts. There is a combined effort in progress that is evaluating multiple options on unit 2 cycle 5 outage work in conjunction with variations to the 5-year plan and the resultant effect on unit 1 cycle 6 start date.

TENNESSEE VALLEY AUTHORITY  
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P. O. Box 2000  
Decatur, Alabama 35602

NOV 16 1984

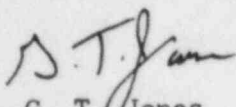
Nuclear Regulatory Commission  
Office of Management Information  
and Program Control  
Washington, DC 20555

Gentlemen:

Enclosed is the October 1984 Monthly Operating Report to NRC for Browns Ferry Nuclear Plant Units 1, 2, and 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
G. T. Jones  
Plant Manager

Enclosures

cc: Director, Region II  
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