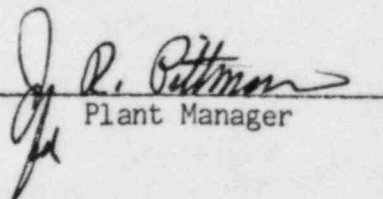


TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
BROWNS FERRY NUCLEAR PLANT

MONTHLY OPERATING REPORT TO NRC
September 1, 1984 - September 30, 1984

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

Submitted by:


Plant Manager

8411150296 840930
PDR ADOCK 05000259
R PDR

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Operations Summary

September 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 three reportable occurrences and one revision to previous reportable occurrences reported to the NRC during the month of September.

Unit 1

There were no scrams on the unit during the month.

Unit 2

There were no scrams on the unit during the month; however, on September 15, the unit was shut down by a controlled shutdown to start its' fifth 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)

September 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	0.17335	0.13566

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

Common System

Approximately 1.07E+06 gallons of waste liquids were discharged containing approximately 5.19E-01 curies of activities.

Operations Summary (Continued)

September 1984

Refueling InformationUnit 1

Unit 1 is scheduled for its sixth refueling beginning on or about 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 the torus modification, turbine inspection, finishing piping inspection, finishing TMI-2 modifications; post-accident sampling facility tie-ins, core spray change-out, and feedwater sparger inspection.

There are 764 fuel assemblies in the reactor vessel. At the end of the month there were 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 1170 locations. All old racks have been removed from the pool and new HDR's are being installed.

Operations Summary (Continued)

September 1984

Unit 3

Unit 3 shutdown for its fifth refueling outage on September 7, 1983, with a scheduled restart date of October 15, 1984. This refueling involves loading 8X8R (retrofit) assemblies into the core, finishing the torus modifications, postaccident sampling facility tie-in, core spray change-out, finishing 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
9/01	0001	Startup in progress.
	0916	Rolled turbine/generator (T/G).
	0940	Synchronized generator, commenced power ascension.
9/02	0010	Holding up on startup, at 57-percent (%) power, to run a TIP set.
	0015	TIP set in progress, "B" TIP machine inoperable, holding up startup for repair of "B" TIP machine.
	1500	Reactor power at 55%, holding for repair of "B" TIP machine.
	2300	Reactor power at 54%, holding for repair of "B" TIP machine.
9/03	1555	"B" TIP machine repaired, started running a set of TIPs.
	1902	TIP run complete, commenced power ascension from 54%.
9/04	0400	Commenced PCIOMR from 80% thermal power.
9/05	0630	Reactor thermal power at 96%, maximum flow, rod limited.
	1100	Commenced PCIOMR from 96% thermal power.
	1230	Reactor thermal power at 98%, maximum flow, rod limited.
	1900	Reactor thermal power at 97%, maximum flow, rod limited.
9/06	0200	Reactor thermal power at 96%, maximum flow, rod limited.
9/07	2200	Commenced reducing thermal power for control rod pattern adjustment.
	2300	Reactor thermal power at 75% for control rod pattern adjustment, increasing power.
9/08	0230	Control rod pattern adjustment complete, commenced PCIOMR from 81% thermal power.
9/09	0220	Reducing thermal power from 95% due to core limits ("R" factor).
	0330	Reactor power at 93%, holding due to core limits.
	1030	Commenced PCIOMR from 93% thermal power.
	1325	Reactor thermal power at 97%, commenced reducing power to remove "A" Condenser Cooling Water (CCW) pump from service for backflush (Milfoil)
	1330	"A" CCW pump out-of-service for backflush, reactor power at 91%.

Significant Operational Events

<u>Date</u>	<u>Time</u>	<u>Event</u>
Unit 1 (Continued)		
9/09 (Cont)	1400	Reduced reactor power to 79% due to high backpressure.
	1405	"A" CCW pump back in service.
	1415	"B" CCW pump out-of-service for backflush (Milfoil).
	1445	"B" CCW pump back in service and "A" CCW pump out-of-service for backflush (Milfoil).
	1615	"A" CCW pump in service and "C" CCW pump out-of-service for backflush, reactor power at 78%, high backpressure.
	1700	Reactor thermal power at 77%, high backpressure.
	1730	Commenced reducing thermal power due to high backpressure.
	1900	Reactor thermal power at 72%, "C" CCW pump back in service and "B" CCW pump out-of-service for backflush (Milfoil).
	1955	Commenced power ascension from 72% thermal power.
	2030	"B" CCW pump in service and "A" CCW pump out for backflush, power ascension in progress.
	2100	Commenced PCIOMR from 79% thermal power.
9/10	0700	Reactor thermal power at 87%, holding, "R" factor out of limits.
	2150	Commenced PCIOMR from 87% thermal power.
9/11	1400	Reactor thermal power at 100%, maximum flow, rod limited.
	1800	Reducing thermal power to backflush "A" CCW pump (Milfoil).
	2115	"A" CCW pump out-of-service for backflush, reactor power at 99%.
	2215	"A" CCW pump in service, increasing thermal power.
	2300	Reactor thermal power at 100%, maximum flow, rod limited.
9/12	0200	"A" CCW pump out-of-service for backflush (Milfoil), reducing thermal power.
	0230	"A" CCW pump in service and "B" CCW pump out-of-service for backflush (Milfoil), reactor power at 99%.
	0255	"B" CCW pump back in service, commenced power ascension.
	0400	Reactor thermal power at 100%, maximum flow, rod limited.
	1100	Reactor thermal power at 99%, maximum flow, rod limited.
	1930	Increasing thermal power from 99%.
	2000	Reactor thermal power at 100%, maximum flow, rod limited.

Significant Operational Events

<u>Date</u>	<u>Time</u>	<u>Event</u>
Unit 1 (Continued)		
9/15	2400	Commenced reducing thermal power for turbine control valve test and SIs.
9/16	0300	Reactor thermal power at 66% for turbine control valve test and SIs.
	0405	Turbine control valve test and SIs complete, commenced power ascension.
	0500	Commenced PCIOMR from 95% thermal power.
	0800	Reactor thermal power at 100%, maximum flow, rod limited.
9/17	1325	Commenced reducing thermal power to repair flange leaks on demineralizer valves.
	1700	Reactor power at 69% to repair flange leaks on demineralizer valves.
	2155	Commenced power ascension from 69% thermal power.
	2205	Commenced PCIOMR from 93% thermal power.
9/18	0200	Reactor thermal power at 98%, holding, due to demineralizer problems.
	0930	Commenced reducing thermal power for removal of "A" CCW pump from service for backflush (Milfoil).
	0950	"A" CCW pump out-of-service for backflush, reactor power at 92%.
	1215	"A" CCW pump back in service and "B" CCW pump out-of-service for backflush, reactor power at 92%.
	1320	"B" CCW pump back in service and "C" CCW pump out-of-service for backflush, reactor power at 91%.
	1400	"C" CCW pump back in service and "A" CCW pump out-of-service for backflush, reactor power at 91%.
	1440	"A" CCW pump back in service, commenced power ascension from 91%.
	1600	Commenced PCIOMR from 96% thermal power.
	2042	Commenced reducing thermal power from 98% for removal of "C" CCW pump from service for backflush (Milfoil problems).
	2100	"C" CCW pump out-of-service for backflush, reactor power at 93%.
	2215	"C" CCW pump back in service and "A" CCW pump out-of-service for backflush.
	2245	"A" CCW pump back in service, commenced power ascension from 93%.

Significant Operational Events

<u>Date</u>	<u>Time</u>	<u>Event</u>
Unit 1 (Continued)		
9/19	0400	Reactor thermal power at 100%, maximum flow, rod limited.
	0958	Commenced reducing thermal power to remove CCW pumps from service for backflush (Milfoil problems).
	1012	Reactor thermal power at 93% for removal of CCW pump from service for backflush (Milfoil problems).
	1445	Commenced power ascension from 93% thermal power.
	1530	Commenced PCIOMR from 97% thermal power.
	1900	Reactor thermal power at 100%, maximum, rod limited.
9/22	0300	Commenced reducing thermal power for CRD exercise.
	0500	Reactor thermal power at 94% for CRD exercise (SI 4.3.A.2).
	0600	CRD exercise complete, commenced power ascension.
	0730	Commenced PCIOMR from 96% thermal power.
	1030	Reactor thermal power at 100%, maximum flow, rod limited.
9/25	2300	Reactor thermal power at 99%, maximum flow, rod limited.
9/28	2230	Commenced reducing thermal power for control rod pattern adjustment.
9/29	0300	Reactor power at 70% for control rod pattern adjustment, increasing thermal power.
	0450	Control rod pattern adjustment complete, commenced power ascension from 75% thermal power.
	0600	Commenced PCIOMR from 77% thermal power.
	2100	Stopped PCIOMR at 91% due to APRM rod blocks.
	2123	Commenced reducing thermal power due to APRM rod blocks.
	2200	Reactor power at 90%, rod block limited.
9/30	0300	Commenced PCIOMR from 90% thermal power.
	2100	Reactor thermal power at 100%, maximum flow, rod limited.
	2400	Reactor thermal power at 100%, maximum flow, rod limited.

Significant Operational Events

<u>Date</u>	<u>Time</u>	<u>Event</u>
		Unit 2
9/01	0001	Reactor thermal power at 62%, maximum flow, rod limited.
9/02	2300	Reactor thermal power at 61%, maximum flow, rod limited.
9/07	1500	Reactor thermal power at 60%, maximum flow, rod limited.
9/12	2300	Reactor thermal power at 59%, maximum flow, rod limited.
9/14	2220	Commenced reducing thermal power for a controlled shutdown for end-of-cycle 5 refuel outage.
9/15	0456	Tripped main turbine from 11% thermal power, end-of-cycle 5 refuel outage begins.
	1708	All rods inserted, controlled shutdown complete.
9/16	0424	Reactor in cold shutdown
9/30	2400	End-of-cycle 5 refuel outage continues.

Significant Operational Events

<u>Date</u>	<u>Time</u>	<u>Event</u>
		Unit 3
9/01	0001	End-of-cycle 5 refuel outage continues.
9/30	2400	End-of-cycle 5 refuel outage continues.

11
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-259
UNIT Browns Ferry 1
DATE 10-1-84
COMPLETED BY T. Thom
TELEPHONE (205) 729-0834

MONTH September 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>292</u>
2	<u>501</u>
3	<u>527</u>
4	<u>868</u>
5	<u>1015</u>
6	<u>1044</u>
7	<u>954</u>
8	<u>885</u>
9	<u>939</u>
10	<u>884</u>
11	<u>1008</u>
12	<u>1044</u>
13	<u>1046</u>
14	<u>1043</u>
15	<u>1046</u>
16	<u>977</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>948</u>
18	<u>995</u>
19	<u>1032</u>
20	<u>1046</u>
21	<u>1069</u>
22	<u>1016</u>
23	<u>1062</u>
24	<u>1058</u>
25	<u>1033</u>
26	<u>1041</u>
27	<u>1057</u>
28	<u>1034</u>
29	<u>888</u>
30	<u>988</u>
31	<u></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.

12
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-260
UNIT Browns Ferry 2
DATE 10-1-84
COMPLETED BY T. Thom
TELEPHONE (205) 729-0834

MONTH September 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>601</u>	17	<u>-12</u>
2	<u>605</u>	18	<u>-11</u>
3	<u>601</u>	19	<u>-9</u>
4	<u>605</u>	20	<u>-10</u>
5	<u>596</u>	21	<u>-10</u>
6	<u>600</u>	22	<u>-9</u>
7	<u>596</u>	23	<u>-10</u>
8	<u>589</u>	24	<u>-9</u>
9	<u>588</u>	25	<u>-8</u>
10	<u>583</u>	26	<u>-10</u>
11	<u>578</u>	27	<u>-9</u>
12	<u>572</u>	28	<u>-9</u>
13	<u>567</u>	29	<u>-9</u>
14	<u>554</u>	30	<u>-8</u>
15	<u>28</u>	31	<u></u>
16	<u>-11</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.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-296
 UNIT Browns Ferry 3
 DATE 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

MONTH September 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>-6</u>	17	<u>-11</u>
2	<u>-7</u>	18	<u>-9</u>
3	<u>-7</u>	19	<u>-9</u>
4	<u>-5</u>	20	<u>-9</u>
5	<u>-5</u>	21	<u>-10</u>
6	<u>-4</u>	22	<u>-9</u>
7	<u>-7</u>	23	<u>-10</u>
8	<u>-10</u>	24	<u>-10</u>
9	<u>-10</u>	25	<u>-9</u>
10	<u>-10</u>	26	<u>-10</u>
11	<u>-10</u>	27	<u>-9</u>
12	<u>-12</u>	28	<u>-10</u>
13	<u>-10</u>	29	<u>-11</u>
14	<u>-10</u>	30	<u>-11</u>
15	<u>-11</u>	31	<u></u>
16	<u>-11</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 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

OPERATING STATUS

1. Unit Name: Browns Ferry One
2. Reporting Period: September 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
9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

Notes

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>720</u>	<u>6,575</u>	<u>89,191</u>
12. Number Of Hours Reactor Was Critical	<u>720</u>	<u>5,858.48</u>	<u>55,664.6</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>700.20</u>	<u>6,485.22</u>
14. Hours Generator On-Line	<u>710.33</u>	<u>5,713.95</u>	<u>54,431.59</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,150,282</u>	<u>17,556,940</u>	<u>156,114,619</u>
17. Gross Electrical Energy Generated (MWH)	<u>698,310</u>	<u>5,781,530</u>	<u>51,427,150</u>
18. Net Electrical Energy Generated (MWH)	<u>680,140</u>	<u>5,628,148</u>	<u>49,953,475</u>
19. Unit Service Factor	<u>98.7</u>	<u>86.9</u>	<u>61.1</u>
20. Unit Availability Factor	<u>98.7</u>	<u>86.9</u>	<u>61.1</u>
21. Unit Capacity Factor (Using MDC Net)	<u>88.7</u>	<u>80.4</u>	<u>52.6</u>
22. Unit Capacity Factor (Using DER Net)	<u>88.7</u>	<u>80.4</u>	<u>52.6</u>
23. Unit Forced Outage Rate	<u>1.3</u>	<u>12.7</u>	<u>22.8</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 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

OPERATING STATUS

- 1. Unit Name: Browns Ferry Two
- 2. Reporting Period: September 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>720</u>	<u>6,575</u>	<u>84,078</u>
12. Number Of Hours Reactor Was Critical	<u>340.93</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>340.93</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>665,357</u>	<u>13,100,122</u>	<u>153,245,167</u>
17. Gross Electrical Energy Generated (MWH)	<u>206,930</u>	<u>4,174,510</u>	<u>50,771,798</u>
18. Net Electrical Energy Generated (MWH)	<u>194,862</u>	<u>4,044,370</u>	<u>49,302,973</u>
19. Unit Service Factor	<u>47.4</u>	<u>88.9</u>	<u>64.6</u>
20. Unit Availability Factor	<u>47.4</u>	<u>88.9</u>	<u>64.6</u>
21. Unit Capacity Factor (Using MDC Net)	<u>25.4</u>	<u>57.8</u>	<u>55.1</u>
22. Unit Capacity Factor (Using DER Net)	<u>25.4</u>	<u>57.8</u>	<u>55.1</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: _____

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

	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

OPERATING DATA REPORT

DOCKET NO. 50-296
 DATE 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

OPERATING STATUS

1. Unit Name: Browns Ferry Three
2. Reporting Period: September 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	720	6,275	66,503
12. Number Of Hours Reactor Was Critical	0	0	43,087.80
13. Reactor Reserve Shutdown Hours	0	0	3,878.13
14. Hours Generator On-Line	0	0	42,193.71
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	0	126,307,711
17. Gross Electrical Energy Generated (MWH)	0	0	41,597,620
18. Net Electrical Energy Generated (MWH)	0	0	40,375,256
19. Unit Service Factor	0	0	63.4
20. Unit Availability Factor	0	0	63.4
21. Unit Capacity Factor (Using MDC Net)	0	0	57.0
22. Unit Capacity Factor (Using DER Net)	0	0	57.0
23. Unit Forced Outage Rate	0	0	16.4

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>October 15, 1984</u>	
26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September 1984

DOCKET NO. 50-259
 UNIT NAME Browns Ferry 1
 DATE 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
289	9/1/84	F	9.67	B					Reactor manually Scrammed to test check valve FCV-75-26 for proper sealing
290	9/7/84	S		H					Derated for control rod pattern adjustment
291	9/9/84	F		F					Derated due to high back pressure
292	9/15/84	S		H					Derated for Turbine CV Tests and SIs
293	9/17/84	F		B					Derated to repair flange leaks on demineralizer valves
294	9/28/84	S		H					Derated for control rod pattern adjustment

17

¹
 F: Forced
 S: Scheduled

²
 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)

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

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

⁵
 Exhibit I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September 1984

DOCKET NO. 50-260
 UNIT NAME Browns Ferry 2
 DATE 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
305	9/15/84	S	379.07	C	4				EOC-5 Refuel Outage (Controlled Shutdown 9/15/84)

¹ F: Forced
S: Scheduled

² 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)

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

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

⁵ Exhibit I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September 1984

DOCKET NO. 50-296
 UNIT NAME Browns Ferry 3
 DATE 10-1-84
 COMPLETED BY T. Thom
 TELEPHONE (205) 729-0834

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
140	9/1/84	S	720	C	4				EOC-5 Refuel Outage Continues (Controlled Shutdown 9/7/83)

¹
 F: Forced
 S: Scheduled

²
 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)

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

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

⁵
 Exhibit I - Same Source

(9/77)

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of September 1984

ite	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
84 7	480V Reactor MOV Bds	2-MG-268-2DA	Repair motor generator	None	Defective material	Loose coil clamp material found. Removed from service to be repaired by Power Service Shop	Repaired motor on MR 314906; repaired generator on MR 322605
17	Cranes & Hoists	Refuel Bridge	Replace brake coil	None	Burnt coil	Bridge will not drive	Replaced burnt coil MR 252095
22	Cranes & Hoists	Refuel Bridge	Replace brake coil	None	Burnt coil	Bridge will not drive	Replaced burnt coil MR 271101
23	Cranes & Hoists	Refuel Bridge	Replace brake coil	None	Burnt coil	Bridge will not drive	Replaced burnt coil MR 320776
26	Radiation Monitoring	2-PNL-90-229	Replace connector	None	Bent ring	Connector will not plug into receptacle	Replaced bent connector MR 318784
74	Cranes & Hoists	Refuel Bridge	Replace brake coil	None	Burnt coil	Bridge will not drive	Replaced burnt coil MR 064126

MR 214257
 9/29/84

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of September 1984

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1983 12/21	480V Shut-down Bds	1-BRK-231-1B	Replace Coil	None	Burnt-out closing coil	Breaker blows fuses when closing	Replaced burnt coil MR 214257
1984 9/7	CO ₂ Storage Fire Protection	1-PNL-39-25-286	Replaced batteries	None	Natural end of life	Batteries failed routine testing	Replaced bad batteries MR 271062
9/12	Reactor Building Ventilation	1-FSV-64-44	Replaced relay	None	Burnt-out relay	Damper will not open automatically	Replaced bad relay MR 321609

CSSC EQUIPMENT

BEARINGS PERIODIC MAINTENANCE UNIT 3

ELECTRICAL MAINTENANCE SUMMARY

File #
 BF 11511 31
 Appendix B
 9/29/84

For the Month of September 1984

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1984 6/17	Air Con- ditioning System	3-CHR-31-943 & 951	Replace expan- sion valve	None	Bad expansion valve	Chillers will not start	Replaced bad valve MR 253110
9/6	Unit Pre- ferred 120VAC	3-MG-252-003	Replaced bear- ings	None	Bad bearings	Vibration of motor	Replaced bad bear- ings on MR 209504
9/7	Sequential Events Recorder	3-XA-55-1-30	Replace card	None	Bad card	Alarm will not clear	Replaced bad card MR 321935
9/8	Core Spray Cooling	3-MVOP-75-22	Replace spare terminal block	None	Broken terminal block	None	Replaced broken terminal block MR 271076
9/10	Fire Pro- tection & CO ₂ Storage	3-BAT-39-25-305	Replace battery	None	Bad battery	Would not pass routine testing	Replaced bad batter- y MR 322822
9/10	Unit Preferred	3-MG-57-1	Replace bad diodes	None	Bad diodes	MG set will not trans- fer to DC	Replaced bad diodes MR 305655
9/14	Standby Diesel Generator	3-MTR-82-3C	Replaced bad bearings	None	Bad bearings	Lube oil pump motor making loud noise	Replaced bad bear- ings MR 322070
9/15	Air Con- tioning System	3-AHU-31-110	Replaced timer	None	Bad timer	Will not start	Replaced bad timer MR 320209
9/18	Standby Diesel Generator	3-RLY-82-TDDO	Replaced relay	None	Bad relay	Diesel exhaust fans 3A & 3B will not start	Replaced bad relay MR 322158 TACF 3-84-193-82

BROWNS FERRY NUCLEAR PLANT UNIT 3

CSSC EQUIPMENT

MECHANICAL MAINTENANCE SUMMARY

For the Month of Sept. 19 84

DATE	SYSTEM	COMPONENT	NATURE OF MAINTENANCE	EFFECT ON SAFE OPERATION OF THE REACTOR	CAUSE OF MALFUNCTION	RESULTS OF MALFUNCTION	ACTION TAKEN TO PRECLUDE RECURRENCE
8/30/84	85	Valve 3-85-516A	Replace	None	Valve would not seal	Could not isolate CRD pump with this valve	Replaced valve with a substitute because the original valve is obsolete

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT
SEPTEMBER 1984

I. Work Synopsis

During the September report period, the unit 3 outage progressed through day number 390 of what is currently projected to be a 412-day outage. Unit 2 was brought offline on September 14, 1984, for refueling outage. Major schedule milestones accomplished this month include:

U-3	Core Reload Completed	9/3/84
	Core Verification Completed	9/4/84
	Closed Fuel Pool Gates	9/4/84
	RPV Reassembly Complete	9/10/84
	RPV Hydro Complete	9/14/84
U-2	Controlled Shutdown	9/15/84
	HDFS Racks Set	9/16/84
	RPV Disassembly Complete	9/30/84

Critical path work on unit 3 involved core reload and vessel disassembly. On September 17, 1984, valve 74-68 failed Local Leak Rate Test (LLRT) and required repair. This work became the new critical path. Valve 74-54 was also identified as needing repair. This work will delay the return to service approximately two weeks.

Critical path activities for unit 2 involved the vessel disassembly, preparation for core unload, and turbine maintenance work in preparation for rotor shipment to the Service Shop. Low-pressure "A" and "C" turbine covers and inner cylinders have been removed, with the high-pressure turbine bolting removal being 90-percent complete.

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT
SEPTEMBER 1984

II. Mechanical Summary - Modifications Section

Listed below are some highlights of major mechanical work performed on unit 3:

- A. 64-series and 84-series valves - This work continued with LLRT being performed on all valves. Valves that failed were reworked and retested.
- B. The steam dryer was inspected with no indications being found.
- C. The 79-02 inspections were completed on September 10, 1984.
- D. STEAR 83-06 - LLRT Instrument After Hydro - This work was completed September 25, 1984.
- E. P0392 - Scram Discharge System Modification - Work was conducted on the platform installation and re-installation of heater drain lines.

Listed below are some highlights of major mechanical work performed on unit 2:

- A. Blade guides were transferred from unit 3 to unit 2.
- B. Control rod drive hydrolazing was completed on both system headers.

III. Electrical Summary - Modifications Section

The majority of the efforts by the Modifications Section were directed toward unit 3, and its' completion. The following is a list of major electrical work performed.

- A. TIP tubing installation was completed. The TIP indexer maintenance, however, continues.
- B. P0621 - Work was conducted on the main steam isolation valve limit switch installation.

OUTAGE MAINTENANCE & MAJOR MODIFICATION MANAGEMENT
SEPTEMBER 1984

III. Electrical Summary - Modifications Section (Continued)

- C. P3139 - Fan motor installation on core spray Loop II was completed September 7, 1984.
- D. The storing of rings on the recirculation motor-generator sets was completed on September 24, 1984.
- E. Faulty limit switches were completed on the torus vacuum breakers.
- F. PO126 - ECCS ATU Inverters - This work continues along with PO533, Torus Temperature Monitor modifications.

TENNESSEE VALLEY AUTHORITY

Browns Ferry Nuclear Plant

P. O. Box 2000

Decatur, Alabama 35602

OCT 11 1984

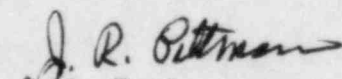
Nuclear Regulatory Commission
Office of Management Information
and Program Control
Washington, DC 20555

Gentlemen:

Enclosed is the September 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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