

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
BROWNS FERRY NUCLEAR PLANT

MONTHLY OPERATING REPORT

January 1, 1983 - January 31, 1983

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

Submitted by: JE Swindell
for Plant Superintendent

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Operations Summary

January 1983

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 12 reportable occurrences and three revisions to previous reportable occurrences reported to the NRC during the month of January.

Unit 1

There were three scrams on the unit during the month. On January 23, the reactor scrammed on MSIV closure from main steamline high temperature when a steam line blew out in the steam tunnel. The reactor was manually scrammed on January 25 when a recirculation pump tripped and could not be restarted and the unit entered a 24 hour limiting condition for operation (LCO). On January 28, the reactor scrammed when the turbine tripped on a false high reactor water level indication which was caused by a loss of unit preferred power.

Unit 2

The unit was in its EOC-4 refueling outage the entire month.

Unit 3

There was one scram on the unit during the month. On January 12, the reactor scrammed on reactor low water level when two reactor feedwater pumps tripped from a false high vibration indication caused by maintenance on the out of service reactor feedwater pump.

Operations Summary (Continued)

January 1983

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	0.00577	0.00448	0.00391
Feedwater nozzle	0.28078	0.19544	0.14871
Closure studs	0.21955	0.15641	0.12705

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

Common System

Approximately $8.72\text{E}+05$ gallons of waste liquids were discharged containing approximately $2.70\text{E}+00$ curies of activities.

Operations Summary (Continued)

January 1983

Refueling InformationUnit 1

Unit 1 is scheduled for its fifth refueling beginning on or about April 15, 1983 with a scheduled restart date of August 15, 1983. This refueling will involve loading 8 X 8 R (retrofit) fuel assemblies into the core; finishing the torus modification; turbine inspection; finishing TMI-2 modifications; post-accident sampling facility tie-ins; core spray changeout; and changeout of jet pump hold-down beams.

There are 764 fuel assemblies in the reactor vessel. The spent fuel storage pool presently contains 52 new 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 capacity is 1,148 locations. Modification work and testing are in progress to increase the spent fuel pool capacity to 3,471 assemblies.

Unit 2

Unit 2 began its fourth refueling on July 30, 1982 with a scheduled restart date of March 7, 1983. This refueling outage will involve completing relief valve modifications, torus modifications, "A" low-pressure turbine inspection, generator inspection, MG set installation for LPCI modification, loading additional 8 X 8 R fuel assemblies into the core, TMI-2 modifications, post-accident sampling facility tie-ins, and changeout of jet pump hold-down beams.

Operations Summary (Continued)

January 1983

Refueling InformationUnit 2 (Continued)

There are 325 fuel assemblies in the reactor vessel. At the end of the month there were 248 new fuel assemblies, 439 EOC-4 fuel assemblies, 353 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 422 locations.

Unit 3

Unit 3 is scheduled for its fifth refueling on or about October 1, 1983, with a scheduled restart date of January 31, 1984. This refueling will involve loading 8 X 8 R (retrofit) assemblies into the core, finishing the torus modifications, post-accident sampling facility tie-in, core spray channel, outlet, finishing TMI-2 modifications, turbine inspection, and changeout of jet pump hold-down beams.

There are 764 fuel assemblies presently in the reactor vessel. There are 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 993 locations.

Significant Operational Event

Unit 1

Date	Time	Event
01/01	0001	Reactor thermal power at 99 percent, maximum flow, rod limited.
01/09	0030	Commenced reducing thermal power for turbine control valve test and Surveillance Instructions (SI's).
	0100	Reactor thermal power at 92 percent for turbine control valve test and SI's.
	0105	Turbine control valve test and SI's complete, commenced power ascension.
	0400	Reactor thermal power at 99 percent, maximum flow, rod limited.
	0900	Reactor thermal power at 98 percent, maximum flow, rod limited.
01/11	0700	Reactor thermal power at 97 percent, maximum flow, rod limited.
01/13	2300	Reactor thermal power at 96 percent, maximum flow, rod limited.
01/14	2220	Commenced reducing thermal power for SI 4.6.A.6&7 (Thermal and Pressurization Limitation Startup of Recirculation Pump or Idle Loop).
	2354	Reactor power at 56 percent for SI 4.6.A.6&7. "A" MG set out of service.
01/15	0100	Reactor power at 46 percent. SI 4.6.A.6&7 complete on "A" recirculation loop.
	0133	"B" recirculation MG set out of service for SI 4.6.A.6&7. Reactor power at 46 percent.
	0200	Reactor power at 48 percent. SI 4.6.A.6&7 in progress on "B" recirculation loop.
	0300	Reactor thermal power at 44 percent. SI 4.6.A.6&7 in progress.
	0315	All rods out, rod pattern attained.
	0320	"B" MG set back in service, commenced power ascension.
	0345	Reactor thermal power at 73 percent; holding for turbine control valve test and SI's.
	0513	Turbine control valve test and SI's complete; commenced power ascension.
	0830	Commenced PCIOMR from 77 percent thermal power.
01/16	0300	Reactor thermal power at 99 percent, maximum flow, rod limited.

Significant Operational Event

Unit 1

Date	Time	Event
01/17	1230	Commenced reducing thermal power to scram control rod 10-39.
	1315	Control rod 10-39 scrambled to "00" for maintenance. Reactor power at 88 percent.
	1643	Maintenance complete on control rod 10-39, reducing thermal power to withdraw control rod.
	1700	Reactor thermal power at 85% for withdrawal of control rod 10-39.
	1710	Control rod 10-39 withdrawn to "48" and timed.
	1712	Commenced power ascension from 85 percent thermal power.
	2100	Reactor thermal power at 99 percent maximum flow, rod limited.
01/20	2300	Reactor thermal power at 99 percent maximum flow, rod limited.
01/23	0043	Reactor Scram No. 164 from 99 percent thermal power on MSIV closure from main steam line tunnel high temperature. The cause of the high temperature was a steam leak which developed when the B1 moisture separator drain pump discharge line blew out due to erosion between LCV-6-73A and B2 high-pressure heater.
	0945	Commenced rod withdrawal for startup.
	1345	Stopped pulling rods for maintenance on steam leaks.
	1635	Commenced rod withdrawal for startup.
	1700	Reactor Critical No. 184.
	1805	EHC problems on turbine reset, No. 2 stop valve opens, holding up startup.
01/24	0111	Rolled turbine generator.
	0152	Synchronized generator, commenced power ascension.
	0544	"A" recirculation pump overspeed manually tripped pump and performed SI 4.6.E 6&7. Reactor thermal power at 27 percent.
	0551	SI 4.6.E.6&7 complete.
	0600	Placed "A" recirculation pump in service, pump tripped, received overcurrent alarm. Increasing thermal power, "A" recirculation pump remains out of service for maintenance (speed control problems).
	1200	Reactor thermal power at 43 percent, "A" recirculation pump limited.

Significant Operational Event

Unit 1

Date	Time	Event
01/24	1500	Reactor thermal power at 42 percent, "A" recirculation pump limited.
	2040	Tried to start "A" recirculation pump again, pump tripped, reactor power at 40 percent.
01/25	0300	Manual Scram No. 165, from 40 percent thermal power, for maintenance on "A" recirculation pump MG set. (Pump failed due to a broken "Heim" rod end within the fluid drive which allowed full coupling of the motor and generator).
	2003	Maintenance complete on "A" recirculation pump MG set, commenced rod withdrawal for start-up.
	2146	Reactor Critical No. 185.
01/26	0040	Rolled turbine generator.
	0057	Synchronized generator, commenced power ascension.
	1300	Commenced PCIOMR from 77 percent thermal power.
01/27	0235	Stopped PCIOMR at 90 percent thermal power due to inoperable trend recorder 47-20.
	0400	Recorder back in service, commenced PCIOMR from 90 percent thermal power.
	1300	Reactor thermal power at 95 percent, stopped PCIOMR, "B" recirculation pump upper guide bearing high high temperature.
	1400	Decreasing thermal power due to "B" recirculation pump upper guide bearing high temperature.
	2300	Reactor power at 89 percent, holding due to "B" recirculation pump upper guide bearing high temperature.
01/28	0130	Commenced PCIOMR from 89 percent thermal power.
	0205	Reactor thermal power at 91 percent, maximum flow, rod limited.
	1353	Reactor Scram No. 166 from 90 percent thermal power on loss of unit preferred power.
	1925	Commenced rod withdrawal for startup.
	2231	Stopped rod withdrawal due to problems with sequential events typer.
	2310	Sequential events typer in service, commenced rod withdrawal.
01/29	0018	Reactor Critical No. 186.
	0305	Rolled turbine generator.
	0325	Synchronized generator, commenced power ascension.
	2030	Commenced PCIOMR from 94 percent thermal power.

Significant Operational Event

Unit 1

Date	Time	Event
01/30	0400	Reactor thermal power at 96 percent, maximum flow, rod limited.
	0700	Reactor thermal power at 95 percent, maximum flow, rod limited.
	0900	Reactor thermal power at 94 percent, maximum flow, rod limited.
	1100	Reactor thermal power at 93 percent, maximum flow, rod limited.
	1155	Commenced reducing thermal power for control rod pattern adjustment to pull all rods out.
	1230	Reactor thermal power at 84 percent, control rod pattern adjustment in progress.
	1300	Control rod pattern adjustment complete, all rods are full out, reactor power at 88 percent.
	1440	Reactor power at 87 percent, reducing for PCIOMR envelope.
	1700	Reactor thermal power at 83 percent for PCIOMR envelope.
	1730	Commenced PCIOMR from 83 percent thermal power.
01/31	0530	Reactor thermal power at 99 percent, maximum flow, rod limited.
	1010	Commenced reducing thermal power for maintenance on bus duct fan damper.
	1130	Reactor thermal power at 52 percent, holding for maintenance on bus duct fan damper.
	1540	Reducing thermal power to trip main turbine for maintenance on bus duct fan damper.
	2005	Manually tripped main turbine for maintenance on bus duct fan damper, reactor power at 25 percent.
	2100	Reactor power at 28 percent, generator off line, holding for maintenance on bus duct fan damper.
	2320	Rolled turbine generator.
	2400	Rolled turbine generator for startup.

Significant Operational Event

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
01/01/83	0001	End-of-cycle 4, refuel outage continues.
01/31/83	2400	End-of-cycle 4, refuel outage continues.

Significant Operational Event

Unit 3

Date	Time	Event
01/01/83	0001	Reactor thermal power at 96 percent, holding for change out of oil filter on "A" reactor feedwater pump and turbine control valve test and SI's.
	0200	Change out of oil filter on "A" reactor feedwater pump and turbine control valve test and SI's complete, commenced PCIOMR from 96 percent thermal power (control cell core).
	0630	Reactor thermal power at 99 percent, maximum flow, rod limited.
	2325	Reduced thermal power to 95 percent for turbine control valve test and SI's.
	2355	Turbine control valve test and SI's complete, commenced power ascension.
	2400	Reactor thermal power at 99 percent, maximum flow, rod limited.
01/09/83	2123	Commenced reducing thermal power for removal of "B" reactor feedwater pump from service for maintenance.
	2400	Reactor thermal power at 78 percent for maintenance on "B" reactor feedwater pump.
01/10/83	0700	Reactor thermal power at 79 percent for maintenance on "B" reactor feedwater pump.
	1100	Reactor thermal power at 80 percent for maintenance on "B" reactor feedwater pump.
01/11/83	2300	Reactor thermal power at 79 percent for maintenance of "B" reactor feedwater pump.
01/12/83	0256	Reactor Scram No. 109 from 78 percent thermal power, when 3A and 3C reactor feedwater pumps tripped on indicated high vibration. The water level dropped to the low-low level setpoint, and the MSIV's closed. Three "B" reactor feedwater pump had been removed from service for maintenance. The vibration probes had been disconnected from the cables. The cables for the six Indikons (two per reactor feedwater pump) run together in a common raceway from the turbine building to the control room. Due to the small signal generated by the probes high impedance, low capacitance coaxial cable (RG62/U) are required in order to eliminate electronic noise. A different type of

Significant Operational Event

Unit 3

Date	Time	Event
01/12/83	0256	(Continued) cable was used when the system was installed (unit 3 only). The disconnected cable grounded on contact with water in the feedpump room which generated an electromagnetic field in the grounded cable and in turn generated noise in the other five cables resulting in indicated high vibration and reactor feedwater pump trips. Unit remains down for maintenance on turbine steam leaks.
	2325	Reactor in cold shutdown for maintenance on turbine steam leaks. Maintenance also continues on reactor feedwater pump Indikon system.
01/13/83	1830	FCV 74-53 tagged for maintenance.
01/14/83	2150	Work on reactor feedpump Indikon system complete.
01/16/83	0010	Leak in "D" residual heat remover (RHR) heat exchanger.
	0014	"D" RHR heat exchanger out of service for maintenance.
01/20/83	1700	Maintenance complete on FCV-74-53. Maintenance continues on "D" RHR heat exchanger leak.
01/29/83	2240	"D" RHR heat exchanger repairs complete, holding unit offline because of inoperable "C" RHR torus suction valve FCV-74-12, and inoperable HPCI valve 73-5.
01/30/83	0420	HPCI valve 73-5 operable, holding unit offline for repairs to FCV-74-12.
	1230	RHR valve 74-12 repaired, RHR Loop I operable.
	1145	Commenced rod withdrawal for startup.
	1438	Reactor Critical No. 123.
	1820	Ultrasonic test (UT) west header monitor equipment malfunction alarm received, stopped rod withdrawal.
	2015	Commenced rod withdrawal.
01/31/83	0100	Holding up on rod withdrawal due to problems with EHC and computer.
	0445	EHC problems resolved, turbine in chest warming, holding due to problems with computer.

Significant Operational Event

Unit 3

<u>Date</u>	<u>Time</u>	<u>Event</u>
01/31/83	1441	Rolled turbine generator.
	1630	Synchronized generator, commenced power ascension.
	1800	Reactor thermal power at 32 percent, holding due to turbine vibration.
	2400	: Reactor thermal power at 32 percent, holding due to turbine vibration.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-259UNIT Browns Ferry 1DATE 2-1-83COMPLETED BY Ted ThomTELEPHONE 205/729-0834MONTH January

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1078
2	1065
3	1065
4	1067
5	1064
6	1063
7	1056
8	1054
9	1046
10	1044
11	1042
12	1039
13	1031
14	1010
15	820
16	1071

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	1027
18	1066
19	1066
20	1065
21	1069
22	1051
23	21
24	301
25	33
26	654
27	929
28	543
29	700
30	961
31	634

INSTRUCTIONS

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-260UNIT Browns Ferry - 2DATE 2-1-83COMPLETED BY Ted ThomTELEPHONE 205/729-0834MONTH January

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-296UNIT Browns Ferry - 3DATE 2-1-83COMPLETED BY Ted ThomTELEPHONE 205/729-0834MONTH January

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1062</u>
2	<u>1065</u>
3	<u>1062</u>
4	<u>1068</u>
5	<u>1061</u>
6	<u>1065</u>
7	<u>1062</u>
8	<u>1063</u>
9	<u>1041</u>
10	<u>826</u>
11	<u>822</u>
12	<u>86</u>
13	<u>-14</u>
14	<u>-12</u>
15	<u>-11</u>
16	<u>-11</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>-12</u>
18	<u>-13</u>
19	<u>-14</u>
20	<u>-13</u>
21	<u>-13</u>
22	<u>-13</u>
23	<u>-13</u>
24	<u>-12</u>
25	<u>-11</u>
26	<u>-11</u>
27	<u>-11</u>
28	<u>-11</u>
29	<u>-11</u>
30	<u>-12</u>
31	<u>65</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 2-1-83
 COMPLETED BY Ted Thom
 TELEPHONE 205/729-0834

OPERATING STATUS

1. Unit Name: Browns Ferry - 1
 2. Reporting Period: January 1983
 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>744</u>	<u>9504</u>	<u>74,546</u>
12. Number Of Hours Reactor Was Critical	<u>698.55</u>	<u>8773.29</u>	<u>48,088.09</u>
13. Reactor Reserve Shutdown Hours	<u>45.45</u>	<u>567.56</u>	<u>5,782.76</u>
14. Hours Generator On-Line	<u>679.45</u>	<u>8,649.40</u>	<u>47,079.57</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,066,830</u>	<u>26,964,927</u>	<u>133,839,834</u>
17. Gross Electrical Energy Generated (MWH)	<u>683,790</u>	<u>8,792,060</u>	<u>44,084,510</u>
18. Net Electrical Energy Generated (MWH)	<u>665,447</u>	<u>8,546,317</u>	<u>42,815,226</u>
19. Unit Service Factor	<u>91.3</u>	<u>91.2</u>	<u>63.3</u>
20. Unit Availability Factor	<u>91.3</u>	<u>91.2</u>	<u>63.3</u>
21. Unit Capacity Factor (Using MDC Net)	<u>84.0</u>	<u>84.4</u>	<u>53.9</u>
22. Unit Capacity Factor (Using DER Net)	<u>84.0</u>	<u>84.4</u>	<u>53.9</u>
23. Unit Forced Outage Rate	<u>8.7</u>	<u>8.5</u>	<u>24.1</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 2-1-83
 COMPLETED BY Ted Thom
 TELEPHONE 205/729-0834

OPERATING STATUS

1. Unit Name: Browns Ferry - 2
 2. Reporting Period: January 1983
 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>744</u>	<u>9,504</u>	<u>69,487</u>
12. Number Of Hours Reactor Was Critical	<u>0</u>	<u>4,846.51</u>	<u>43,293.47</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>203.06</u>	<u>13,684.82</u>
14. Hours Generator On-Line	<u>0</u>	<u>4,778.36</u>	<u>41,975.45</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>13,827,550</u>	<u>120,480,340</u>
17. Gross Electrical Energy Generated (MWH)	<u>0</u>	<u>4,592,260</u>	<u>40,024,908</u>
18. Net Electrical Energy Generated (MWH)	<u>0</u>	<u>4,450,929</u>	<u>38,873,075</u>
19. Unit Service Factor	<u>0</u>	<u>50.3</u>	<u>60.4</u>
20. Unit Availability Factor	<u>0</u>	<u>50.3</u>	<u>60.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0</u>	<u>44.0</u>	<u>52.5</u>
22. Unit Capacity Factor (Using DER Net)	<u>0</u>	<u>44.0</u>	<u>52.5</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>5.5</u>	<u>27.1</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 3/7/83
 26. Units In Test Status (Prior to Commercial Operation)

INITIAL CRITICALITY
 INITIAL ELECTRICITY
 COMMERCIAL OPERATION

Forecast	Achieved
_____	_____
_____	_____
_____	_____

OPERATING DATA REPORT

DOCKET NO. 50-296
 DATE 2-1-83
 COMPLETED BY Ted Thom
 TELEPHONE 205/729-0834

OPERATING STATUS

1. Unit Name: Browns Ferry - 3
2. Reporting Period: January 1983
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	9,504	51,912
12. Number Of Hours Reactor Was Critical	300.30	5,445.60	37,912.58
13. Reactor Reserve Shutdown Hours	443.7	1,674.32	3,815.85
14. Hours Generator On-Line	274.43	5,297.71	37,048.49
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	798,838	16,276,322	110,134,942
17. Gross Electrical Energy Generated (MWH)	279,800	5,321,400	36,319,590
18. Net Electrical Energy Generated (MWH)	267,069	5,159,927	35,247,973
19. Unit Service Factor	36.9	55.7	71.4
20. Unit Availability Factor	36.9	55.7	71.4
21. Unit Capacity Factor (Using MDC Net)	33.7	51.0	63.8
22. Unit Capacity Factor (Using DER Net)	33.7	51.0	63.8
23. Unit Forced Outage Rate	63.1	25.0	18.1
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):

INITIAL CRITICALITY _____

INITIAL ELECTRICITY _____

COMMERCIAL OPERATION _____

Forecast _____

Achieved _____

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-259
 UNIT NAME Browns Ferry - 1
 DATE 2-1-83
 COMPLETED BY Ted Thom
 TELEPHONE 205/729-0834

REPORT MONTH January

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
253	1/14/83	S		B					Derated for SI on Thermal and Pressurization Limitation Startup of Recirculation Pump on Idle Loop
254	1/23/83	F	25.15	H	3				Reactor scram due to main steam tunnel high temperature
255	1/25/83	F	21.95	B	2				Reactor scram for maintenance on recirculation pump M-G set.
256	1/28/83	F	13.53	H	3				Reactor scram due to loss of unit preferred power
257	1/31/83	F		B					Derated for maintenance on bus duct fan damper.
258	1/31/83	F	3.92	B	4				Turbine manually tripped for maintenance on bus duct fan damper. No reactor scram.

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 January

DOCKET NO. 50-260
 UNIT NAME Browns Ferry - 2
 DATE 2-1-83
 COMPLETED BY Ted 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
243	1/1/83	S	744	H	2				EOC-4 Refuel Outage Continues

1. Forced
 S. Scheduled

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 January

DOCKET NO. 50-296
 UNIT NAME Browns Ferry - 3
 DATE 2-1-83
 COMPLETED BY Ted 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
122	1/9/83	F		B					Derated for maintenance on B reactor feedpump
123	1/12/83	F	469.57	A					Reactor scram due to false high vibration indication on 3"A" and 3"C" reactor feedpump. Unit remains down for maintenance on 3"B" RFWP Indikon system, turbine system leaks, FCV-74-53, "D" RHR heat exchanger.

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

CSSC EQUIPMENT

MECHANICAL MAINTENANCE SUMMARY

For the Month of January 1983

DATE	SYSTEM	COMPONENT	NATURE OF MAINTENANCE	EFFECT ON SAFE OPERATION OF THE REACTOR	CAUSE OF MALFUNCTION	RESULTS OF MALFUNCTION	ACTION TAKEN TO PRECLUDE RECURRENCE
12-30	Radiation Monitoring	cam 90-256	air leak	none	faulty o'ring & front cover out of adjustment	charcoal holder leaking air	Installed o'rings on holder & straighten front cover TR# 216800
1-17	CRD	directional control valve PSV-85-40A on module 10-39	module non-functional	none	faulty directional control valve	module would not move	replaced directional control valve. TR# 291786
1-21	RHR	valve 74-67	slow leak	none	slightly loose	slow water leakage	tighten packing TR# 340047
1-21	D/G	B air compressor D/G 1C	air compressor malfunction	none	faulty high pressure unloader & head gasket	air compressor blowing air	repaired head pressure unloader & replaced head gasket high pressure TR# 310160
1-21	RHR	FCV-74-52 FCV-74-53 FCV-74-66 FCV-74-67	valve bolts out of adjustment	none	bolt under torque setting	valves not set at proper torque	tightened & torqued to 680 ft.-lbs. TR# 242302
1-20	D/G	air compressor #2 D/G 3D	air leak	none	blown head gasket	leaking head gasket on 2nd stage	replaced head gasket TR# 313350
1-26	RHR	FCV-74-77 FPC pumps	bolts not properly torqued	none	unknown	valve bolts out of specified torque value	torqued per MMI 51 TR# 297005
1-25	RCIC & LPCI	FCV-71-37, 38 & 39 & 8 FCV-74-47	bolts not properly torqued	none	unknown	loose valve bolts out of torque specs.	torqued 71-8, 37, 3 & 39 to 245 ft.-lbs 74-47 to 846.70 ft. lbs. TR# 297281

CSSC EQUIPMENT

MECHANICAL MAINTENANCE SUMMARY

For the Month of January 19 83

DATE	SYSTEM	COMPONENT	NATURE OF MAINTENANCE	EFFECT ON SAFE OPERATION OF THE REACTOR	CAUSE OF MALFUNCTION	RESULTS OF MALFUNCTION	ACTION TAKEN TO PRECLUDE RECURRENCE
1-09	Core Spray	HCV-75-29	valve inoperable	none	keyway on shaft was found to be worn & drive pin broken	valve not functioning properly	repaired drive pin & keyway TR# 311134

CSSC EQUIPMENT

MECHANICAL MAINTENANCE SUMMARY

For the Month of January 19 83

DATE	SYSTEM	COMPONENT	NATURE OF MAINTENANCE	EFFECT ON SAFE OPERATION OF THE REACTOR	CAUSE OF MALFUNCTION	RESULTS OF MALFUNCTION	ACTION TAKEN TO PRECLUDE RECURRENCE
1-03	Radiation Monitoring	CAM 90-256	air leak	none	faulty o'rings	air leaking around particulate filter holder	replaced o'rings TR# 283603
12-11	Reactor Ventilation	3B1 shutdown board room air handling unit	air handling inoperational	none	bad bearings	air handling unit inoperable	replaced both bearings TR# 326806
1-12	HPCI	HPCI gland seal condenser	steam leak	none	head gasket blown	seal gland condenser nonfunctional	replaced gasket TR# 340819
1-07	RHR	FCV-74-74	valve inoperable	none	clutch gear broken	motor runs, stem does not move	replaced clutch gear TR# 275594
1-19	HPCI	FCV-73-3	valve inoperable	none	packing remove for repair of seal ring	valve inoperable	installed new packing TR# 297268
1-05	D/G	thermostatic valve A engine	replace orings & element assemblies	none	faulty valve	valve nonfunctional	replaced thermostatic elements, o'rings & body gasket TR# 297201
1-06	D/G	lube oil circulating pump coupling D/G A	coupling nonfunctional	none	worn flex grammet	spider coupling not supporting pump properly	changed flex grammet TR# 342313
1-21	Core Spray	FCV-75-80	water leak	none	bonnet bolts loose & in need of torqueing	bonnet flange leaking	tightened bonnet bolts to 234 ft.-lb. slowed leak to less than 1 drop per min. TR# 297295

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 19 83

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
12/28/82	Diesel Generator	Central Diesel information center annunciator panel (XA-55-41A) inverter for D/G "A".	Annunciator panel inoperable.	None	Bad annunciator panel (XA-55-41A) inverter.	Annunciator panel inoperable.	Replaced the bad inverter, annunciator panel operated properly. TR #339220
1/1/83	Air Conditioning (Cooling-Heating)	"1A" Control bay chiller purge unit compressor.	"1A" Control bay chiller purge unit inoperable.	None	Bad compressor.	Purge unit inoperable on "1A" control bay chiller.	Replaced the bad compressor, purge unit operated properly. TR #277510 25
1/4/83	Air Conditioning (Cooling-Heating)	"1B" Control bay chiller flow switch FS-31-6.	"1B" Control bay chiller inoperable.	None	Bad flow switch (FS-31-6).	"1B" Control bay chiller inoperable.	Replaced the bad flow switch and performed EMI 60, returned control bay chiller to service. TR #277519

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 1983

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/13/83	High-Pressure Fire-Protection	Diesel fire pump.	During the performance of SI the diesel fire pump failed to start from control room panel 9-20 (HS-26-106A1).	None, the diesel fire pump could be started locally, electric fire pumps were operable.	CB1 and CB2 were in the "off" position and the system needed to be reset.	Diesel fire pump would not start from panel 9-20. The fire pump could be started locally.	Reset circuit breakers and the diesel fire pump "start" circuitry operated properly. TR #340015.
1/20/83	4KV Shutdown Boards and Busses	Contact 2-2C circuitry of transfer relay 81-6 in 4KV shutdown bd. D.	A wire on contact 2-2C of transfer relay 81-6 caught in the compartment door hinge, shorted to ground, and burned into.	None, contact 2-2C of relay 81-6 had no effect on the control function of shutdown bus 1.	See nature of maintenance.	The function of contact 2-2C is to trip normal feeder breaker 1612 to shutdown bus 1. With the damaged wire, contact 2-2C would not have performed its function. NOTE: Breaker 1612 can also be tripped by overcurrent relays.	The wire to contact 2-2C was repaired and the transfer relay 81-6 returned to service. TR #244975

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 19 83

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/26/83	Fire Protection	Supervisory circuit for zone 14 smoke detectors control bay elevation 593.	Received a trouble alarm on XA-39-119A2 panel 25-325.	None	Undetermined, trouble cleared while trouble shooting. However detector XS-39-104BM was found to be loose from base and a probable cause of failure also possibly a loose connector.	Lost power to some of the 16 detectors in zone 14 on control bay elevation 593. Battery room #1, battery board room #1, unit preferred MG set room, and RPS MG set room for unit 1.	A patrolling fire watch was established, trouble shooting began (verifying proper connections) and the problem cleared. Zone 14 was returned to service. A mounting bolt was replaced in detector XS-39-104BM and the detector tightened to base. TR #340088 TR #225268 LER#BFRO-50-259/8305

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 19 83

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/16/83	CRD	Insert solenoid on Hydraulic control unit 30-27.	HCU insert solenoid not operating on insert signal.	None, unit in refueling outage.	Loose connection on (insert) solenoid coil.	Insert solenoid on HCU 30-27 inoperable.	Tightened loose connection, solenoid operated properly. TR #339978
1/29/83	RHR, Automatic Blowdown, HPCI and RCIC	HFA relays, 10AK15B in panel 9-33, 2E-K21 in panel 9-30, 23A-K13 in panel 9-39, 13A-K26 in panel 25-31, and 2E-K9 in panel 9-30.	Relay coil retainer (lexan) spool inspection.	None, the relays were operable.	Failure of lexan coil retainer spools. Ref. HFA Relay Coils Service Advice PSM-721-152.2 FSR 366E8138.	Relay coil retainer spools cracked. NOTE: The relays were found to have cracked coil spools during inspection, relays were still operable.	The listed relays were replaced per SEMI 37 and returned to service. TR #179933 TR #179937 TR #179936 TR #310880 TR #310881

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 1983

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/14/83 31/83	Fire Protection	Annunciator TA-39-113 circuitry.	Annunciator TA-39-113 failed to test.	None, heat detector operability was not affected.	Loose annunciator card.	Annunciator TA-39-113 would not test. Control room annunciation for the affected heat detectors zones was still available and operable via an alternate alarms path through central panel 25-313.	On failure of 1/14/83, the input wire 2M1123 was lifted and reterminated, the annunciator was tested and operated properly. The annunciator failed again on 1/31/83, the annunciator circuitry card was realigned, ²⁹ tightened, tested, and returned to service. TR #339956 MR #A061006
1/15/83 thur 1/20/83	CRD	Hydraulic control unit PS-42-43, LS-34-43, LS-42-43, LS-34-15 and PS-38-07.	N2 leak around PS-42-43, LS-34-43, and LS-42-43. LS-34-15 inoperable and PS-38-07 giving low N ₂ alarm with N ₂ pressure normal.	None, unit in refueling outage.	Bad O-ring seals at PS-42-43, LS-34-43, and LS-42-43. LS-34-15 and PS-38-07 bad.	Loosing nitrogen pressure from HCU-42-43, HCU-34-43, and HCU-42-43. LS-34-15 and PS-38-07 inoperable.	Replaced O-rings for PS-42-43, LS-34-43, and LS-42-43. Replaced LS-34-15 and PS-38-07. TR #339969 TR #339981 TR #310133 TR #310134

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 1983

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/12/83	Main Steam	Relay 16AK2C in panel 9-15	Relay inoperable.	None, unit in refueling outage.	Burned relay coil.	Received false "Steam Tunnel Hi Temp" annunciation on panel 9-5. Computer printout on C1547 "Steam Tunnel Hi Temp". Relay deenergized causing $\frac{1}{2}$ isolation.	Replaced the relay and functionally tested. TR #311092
1/14/83	CRD	Scram accumulator level switch LS-34-11.	Local accumulator monitor panel 25-22 fuse blowing.	None, unit in refueling.	LS-34-11 lead grounded.	Circuitry for set 4 hydraulic control units at accumulator monitor panel 25-22 inoperable.	Cleared ground at level switch 34-11 and replaced fuse, circuitry operated properly. TR #339267
1/14/83	CRD	CRD control switch (HS-85-48).	HS-85-48 was not operating properly.	None	Broken mechanical stop.	Required care to be taken by operator to avoid operating the switch past the desired setting.	Replaced the broken stop, switch operated properly. TR #339921

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 19 83

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken To Preclude Recurrence
1/20/83	RHR	Heat exchanger C discharge valve HCV-3-74-22.	Valve red indicating light on panel 9-3 inoperable.	None	Bad limit switch.	Valve indicating light circuitry inoperable.	Replaced the bad limit switch, light circuitry operated properly. TR #313382
1/29/83	HPCI	Condensate drain pot high level switch (3-LS-73-5).	3-LS-73-5 inoperable.	None	Grounded wire in junction box due to open insulation.	Condensate drain pot drain valve (3-LCV-73-5) was made inoperable.	Pulled slack from wire, cut out damaged portion, relugged and terminated wire. The level switch circuitry operated properly. TR #269417

CSSC EQUIPMENT

ELECTRICAL MAINTENANCE SUMMARY

For the Month of January 19 83

Date	System	Component	Nature of Maintenance	Effect on Safe Operation of The Reactor	Cause of Malfunction	Results of Malfunction	Action Taken to Preclude Recurrence
1/11/83	Core Spray	NW core spray room cooler fan circuitry.	NW core spray room cooler fan failed to start when core spray pump 3C was started.	None, fan would start when any set of core spray pumps were started as required by technical specifications.	Wiring error (internal jumpers missing and wires not lifted from terminals 11 and 12) in breaker compartment.	NW core spray room cooler fan failed to start when core spray pump 3C was started.	A TACF form was issued and the wiring error corrected. The drawings will be corrected by FCR. TR #291783
1/14/83	HPCI	Testable check valve 3-FCV-73-45 position indicating circuitry.	Received a valve "open" indication with valve in closed position.	None	Bad magnetic switch.	Received a false valve position indication.	Replaced the bad switch, position lights operated properly. TR #313325 3
1/15/83	RHR	LPCI MG set 3EA.	MG set tripped on attempted start.	None, unit in cold shutdown, RHR Loop II available.	If the motor doesn't reach rated speed in 45 seconds over-current relays will trip it. The motor generator requires close to 45 seconds to accelerate normally. It appears the motor generator failed to reach rated speed within 45 seconds.	MG set tripped on attempted start.	EMI 71 was performed. The motor generator was successfully started and returned to service. TR #340834

CORE EQUIPMENT

PERIODIC MAINTENANCE SUMMARY
FOR THE MONTH OF January 1983

	SYSTEM	COMPONENT	NATURE OF MAINTENANCE	EFFECT ON SAFE OPERATION OF THE REACTOR	CAUSE OF MALFUNCTION	RESULTS OF MALFUNCTION	ACTION TAKEN TO PREVENT RECURRANCE
-1							
1/10	68	PDI-68-7	Replace	None	End of Life	Instrument Drift	None
1/23	1	PS-1-76	Replace	None	End of Life	Spurious Contact Operation	None
-2							
1/10	75	PI-75-4	Repair	None	Over Ranged	False Indication	None
1/10	75	PI-75-13	Calibration	None	Instrument Drift	False Indication	None
-3							
1/24	3	LR-3-53	Repair	None	Faulty Switch	Invalid Alarm	None
1/24	64	PDIS-64-7	Replace	None	End of Life	Improper Switch Action	None

FIELD SERVICES SUMMARY

January 1983

Major Work Areas

- A. Refuel area - the fuel shuffle in the spent fuel pool was completed in January in preparation for loading fuel into the reactor pressure vessel. Upon completion of the fuel shuffle the jet pump plugs were removed. Other preparations were conducted, Surveillance Instructions (SI's), etc., to support the fuel loading. The fuel pool gates were opened on January 23 and fuel reload was started at 2010 hours January 24. Fuel loading is still in progress.
- B. Turbine - the "B" low pressure turbine assembly was completed in January and successful testing was performed on the two thermocouples which were installed the previous month. Coupling alignment was completed January 24 and oil flush was started. The oil flush was completed January 29. The generator air test was started and is continuing. A stroke check on the turbine bypass valves was performed during January.
- C. Electrical - during January the primary work performed by the electrical group was as follows:
 - 1. Completion of LPCI Loop I tie-ins and post-modification testing.
 - 2. P0392 - all instrumentation was calibrated and the post-modification testing was completed on this modification.

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

C. Electrical (Continued)

3. Completion of all electrical work on the inboard MSIV's in preparation for fuel loading and started electrical work on the outboard MSIV's.
4. Started work on the STEAR for recirculation riser instrumentation installation. Junction boxes were fabricated, installed, and cable is being pulled and checked for continuity. Instruments are being mounted.
5. Work continued during January on L2115E. This work supports installation of the two new MSRV's on the "M" and "N" tailpipes.
6. PO479 emergency lighting - all lights on elevation 565 (reactor building) were completed and operational during the month of January. Forty-eight of the seventy-one lights are 100 percent complete, fifty-four have conduit complete and fifty-two have wiring complete as of January 31.
7. Other electrical work performed this month includes:
 - a. Completion of all electrical work to support PO630, thermocouple modification (turbine), except final calibration and checkout.

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

C. Electrical (Continued)

- b. Installation of conduit and cable for the torus vacuum breakers. Manually actuated vacuum breakers and set limit switches. Awaiting service air to be placed in service before SI can be performed on this modification.
- c. Supported the preparation for ILRT, completed Field Services Group portion of the main transformer 2 "B" work on January 14.
- d. Started spraying flammastic on uncoated cables in unit 2 reactor building elevation 593. Supported the preparation for the unit 1 torus modifications.
- e. Completed all work related to Electrical Maintenance Instruction (EMI) 71 and completed rework of conduit supports on P0590.

- D. Mechanical - the mechanical portion of P0392 was completed during January with the completion of hanger installation and air lines to the vent and drain valves. In addition manometers were installed on the east and west SDIV tanks to support instrumentation calibration. After completion of instrumentation calibration and the post-modification testing, the CRD timing

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

D. Mechanical (Continued)

test was performed. During the timing test various problems were encountered including the star valves leaking, and two drives indicating they were uncoupled. All problems were resolved and no CRD's required changing out. All inboard MSIV's were reassembled after passing LLRT, (in support of ILRT) and turned over to electrical for final assembly. Some mechanical work remains on the outboard MSIV's.

1. Other mechanical work:

- a. Completed plugging last two feedwater heaters and turned them over to Operations.
- b. Completed all MSR/V torquing.
- c. Completed all contractor work on the "M" and "N" tailpipes. Vent header final inspection is in progress.
- d. Completed all mechanical work on PO361M (H_2O_2 modification).
- e. Completed all work on PO384 (change stroke time of containment purge valves) except for an FCR for splicing cable and adding conduit. FCR has been approved.
- f. Completed repairs on dampers and ventilation ducts on "A" and "B" drywell coolers.

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

D. Mechanical (Continued)

1. (Continued)

- g. PO612 MSRV air supply - work on this modification continued with completion of all pipe welding. During flex line installation, problems were encountered which required the rerouting of at least five lines. Two crews have been assigned to this work to support the upcoming IRLT schedule date.
- h. Minor work still remains on the debris screens, and will be complete after painting requirements are resolved.
- i. PO392 - install fence around SDIV tanks (WP 6895). Interference problems have been discovered with the installation of the 2 inch drain line valves. This problem is being reviewed by EN DES. Also, there is a potential problem with delivery of fencing material.
- j. PO392 - install SDIV access platform (WP 6867). EN DES is resolving some problems as identified above. Prefabrication work is underway.

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

D. Mechanical (Continued)

- k. Repaired valve 2-74-85 (30 inch torus suction hand control butterfly valve). This repair required drain down of torus. Also during inspection of 74-85 and other valves, valve 75-29 was found partially closed and parts had to be machined by the machine shop in order to make repairs.
- 1. TIP tubing - some preliminary checks were conducted this month to support the tip tubing installation and the installation was started the end of the month.
- 2. Work performed on unit 3:
 - a. Changed out gasket on floating head and plugged six tubes on 3 "D" RHR heat exchanger. Performed maintenance on valve 3-74-53.

- E. Torus - during the early part of January, work inside the torus consisted of above waterline installation of new hatch, vacuum breaker conduit, rebuild and checkout of vacuum breakers and bolt down of grating. All work was completed during the first half of January, except "D" vacuum breaker due to lack of parts; but by month end work was completed.

FIELD SERVICES SUMMARY (Continued)

January 1983

Major Work Areas (Continued)

E. Torus (Continued)

Outside the torus, lapplate work and ECCS gussets continued throughout January. Torus snubber work consisted of rebuild of 11 units onsite by vendor. Installation of all snubbers was completed by the end of January; however one unit developed seal leaks after installation and had to be returned to vendor for correction. This snubber has been promised back by February 8.

Seismic lug shim rework to new tolerances started in the middle of January. This work progressed to where all shim sized were established and nineteen of thirty-two installed. The machine shop is fabricating the balance.

By the end of the month, two MKII for tiedowns, one torus snubber, one set of ECCS gussets, one set of torus snubber gussets, and nine sets of lapplates required completion.

Sixty-six torus related workplans of eighty-nine were closed.