MONTHLY OPERATING REPORT
BROWNS FERRY NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY

FEBRUARY 1988

"Safety and Quality are Paramount"

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

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

Submitted by:

John Walker

John G. Walker
Plant Manager

IE24
0/1

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OPERATIONAL SUMMARY

SIGNIFICANT OPERATIONAL EVENTS SUMMARY

FEBRUARY 1988

Unit 1

02/01/88	0001	Unit remains on administrative hold to resolve various TVA and NRC concerns, and end of cycle 6 refueling and modifications continues.
02/29/88	2400	Unit remains on administrative hold to resolve various TVA and NRC concerns, and end of cycle 6 refueling and modifications continues.

Unit 2

02/01/88	0001	Unit remains on administrative hold to resolve various TVA and NRC concerns, and end of cycle 5 refueling and modifications continues.
02/29/88	2400	Unit remains on administrative hold to resolve various TVA and NRC concerns, and end of cycle 5 refueling and modifications continues.

Unit 3

02/01/88	0001	Unit remains on administrative hold to resolve various TVA and NRC concerns, and environmental qualifications and modifications continues.
02/29/88	2400	Unit remains on administrative hold to resolve various TVA and NRC concerns, and environmental qualifications and modifications continues.

FUEL PERFORMANCE AND SPENT FUEL STORAGE CAPABILITIES SUMMARY

FEBRUARY 1988

Unit 1

Unit 1 was placed on administrative hold in March 1985 to resolve TVA and NRC concerns. The unit also began its sixth refueling on June 1, 1985, with a scheduled restart date to be determined. The sixth refueling will involve loading 8x8R (retrofit) fuel assemblies into the core. The prior-to-startup unit 1 items are environmental qualification of electrical equipment (10CFR50.49), torus modification (NUREG 0661), containment modifications (NUREG 0737), electrical changes (Appendix R 10CFR50) (all), MSIV modifications, modification of masonry walls (IEB 80-11), evaluation of the vent drain and test connections, VDTC, (LER 82020), valve modification (Appendix J), HPCI concerns, modification of PCIS logic (LER 259 85009), replacement of plant process computers, seismic qualifications of piping (IEB 79-02/14), postaccident evaluation (NUREG 0737), RPS modifications (IE Notice 78-45), H_2O_2 sample line modification (LER 81050), radiation monitors modification (LER 80033), EECW carbon to stainless pipe change out, and all NRC commitment items except Anticipated Transients Without Scram (ATWS) modifications which is scheduled for next outage.

There are 0 assemblies in the reactor vessel. The spent fuel storage pool presently contains 284 new assemblies, 764 EOC-6, 252 EOC-5, 260 EOC-4, 232 EOC-3, 156 EOC-2, and 168 EOC-1 assemblies. The present available capacity of the fuel pool is 1355 locations.

FUEL PERFORMANCE AND SPENT FUEL STORAGE CAPABILITIES SUMMARY (CONT.)

FEBRUARY 1988

Unit 2

Unit 2 was shut down on September 15, 1984, for its fifth refueling outage with a scheduled restart date to be determined. On September 3, 1985, the unit was placed on administrative hold to resolve TVA and NRC safety concerns. The fifth refueling involves loading 8x8R (retrofit) fuel assemblies into the core. The prior-to-startup unit 2 items are CRD SDIV piping modification (IEB 80-17), environmental qualification of electrical equipment (10CFR50.49), torus modifications (NUREG 0661), containment modification (NUREG 0737), electrical changes (Appendix R 10CFR50) (partial), MSIV modifications, modification of masonry walls (IEB 80-11), addition of feedwater nozzle temperature monitoring (NUREG 0619), evaluation of the vent drain and test connections, VDTC, (LER 82020), valve modification (Appendix J) (partial), D/G speed sensor installation (LER 81004), HPCI and RCIC testable check valve change out, modification of PCIS logic (LER 259 85009), HPCI concerns, seismic program review, and EECW carbon to stainless pipe change out.

There are 0 assemblies in the reactor vessel. At month end there were 304 new assemblies, 764 EOC-5, 248 EOC-4, 352 EOC-3, 156 EOC-2, and 132 EOC-1 assemblies in the spent fuel storage pool. The present available capacity of the spent fuel pool is 1481 locations. All HDRs have been installed in the pool with the exception of two.

FUEL PERFORMANCE AND SPENT FUEL STORAGE CAPABILITIES SUMMARY (CONT.)

FEBRUARY 1988

Unit 3

Unit 3 was shut down on March 9, 1985, and placed on administrative hold to resolve various TVA and NRC concerns with a scheduled restart date to be determined. The sixth refueling outage has been scheduled for September 21, 1988, and involves loading 8X8R (retrofit) assemblies into the core and ATWS modifications. The prior-to-startup unit 3 items are environmental qualification of electrical equipment (10CFR50.49), containment modifications (NUREG 0737), electrical changes (Appendix R 10CFR50) (all), MSIV modifications, modification of masonry walls (IEB 80-11), evaluation of the vent drain and test connections, VDTC, (LER 82020), valve modifications (Appendix J), HPCI concerns, replacement of plant process computer, seismic qualifications of piping (IEB 79-02/14), postaccident evaluation (NUREG 0737), addition of redundant drywell control air supply, RPS modification (IE Notice 78-45), H_2O_2 sample line modification (LER 81050), radiation monitor modification (LER 80033), replacement of jet pump holddown beam assemblies (IEB 80-07), change out of switches in SBGT (LER 83018), EECW carbon to stainless pipe change out, and plant design upgrade to seismic qualification.

There are 0 assemblies in the reactor vessel. There are 764 assemblies to finish EOC-6, 248 EOC-5, 280 EOC-4, 124 EOC-3, 144 EOC-2, and 208 EOC-1 assemblies in the spent fuel storage pool. The present available capacity of the fuel pool is 585 locations. All high density racks (HDR) have been installed in the pool with the exception of six.

MSRVs (MAIN STEAM RELIEF VALVE) SUMMARY

FEBRUARY 1988

No MSRVs were challenged during the month.

ISSUANCE OF SPECIAL REPORTS

The following special report was submitted to the NRC in February 1988.

87-46-03 During a Nuclear Regulatory Commission (NRC) inspection conducted on December 1-31, 1987, a violation of NRC requirements was identified. The violation involved failure to properly test the Standby Gas Treatment System following the fire in the Unit 2 drywell on November 2, 1987.

The following licensee event reports (LERs) were reported to the Nuclear Regulatory Commission in February 1988.

LER	Description of Event
1-85-026 Rev. 3	Cable Tray Loading On July 1, 1985, field inspections and subsequent structural evaluations determined various cable tray sections and their supports not seismically qualified in accordance with the plant's original design criteria. In addition, a number of cable tray sections were determined to have excessive fire retardant coating applied, raising a concern on cable ampacity. The essential cable trays and their supports in unit 2 and in other areas essential to operation of unit 2, were subjected to an evaluation by United Engineers and Constructors (UE&C). This evaluation specified modifications to ensure structural integrity of the cable tray supports. These modifications will be completed prior to unit 2 startup. A design standard has been written to derate cable based upon excessive depth. Cables determined to be unsatisfactory will be replaced.
1-88-001	Unplanned Reactor Water Cleanup Isolation due to Loose Connection On January 17, 1988, at 0810 hours, with the unit defueled, the temperature switch monitoring the discharge of the unit 1 reactor water cleanup (RWCU) nonregenerative heat exchanger initiated a spurious isolation of the RWCU system through the primary containment isolation system. This was an unplanned actuation of an engineered safety feature. An investigation was initiated to determine the cause of the isolation. The water temperature was verified to be well below the isolation setpoint. During troubleshooting the relay controlled by the temperature switch reset to the normal position allowing the operator to reset the isolation logic. A loose solder connection that initiated the isolation was found in the temperature switch.

Description of Event
(Continued)

LER

The connection was repaired and the switch recalibrated. The system was returned to service the following day at 0945 hours. A brush recorder was temporarily connected to monitor switch behavior. No abnormalities were observed during the thirty hours the recorder was attached. No further actions are planned.

1-88-002

Engineered Safety Feature Actuation due to Personnel Error During Switch Calibration.

On January 6, 1988, at 1954 hours, with all three units defueled, four emergency equipment cooling water (EECW) pumps are inadvertently started due to a personnel error associated with the calibration of a raw cooling water (RCW) pressure switch. Low RCW pressure is a designed start signal for the EECW pumps. While returning a wire to its normal position it was allowed to momentarily contact an adjacent terminal position. This simulated a low RCW pressure and thereby completed the start logic for the EECW pumps. This was an unplanned actuation of an engineered safety feature.

The craft personnel performing the calibration returned the circuit to the normal configuration in accordance with the procedure. Operations personnel surveyed the panel for blown fuses or damage and found none. Four EECW pumps were returned to standby readiness by 2100 hours. The craft personnel involved were cautioned to exercise extreme care when working with energized circuits. All instrument maintenance personnel will be provided with a description of the event.

1-88-003

Inadequate Procedure Causes Inadvertent Start of Emergency Equipment Cooling Water Pumps.

On January 12, 1988, at 0043 hours, with all three units defueled, four emergency equipment cooing water (EECW) pumps were inadvertently started due to a procedure deficiency. While attempting to put a raw cooling water (RCW) pump into service and take another pump out of service, the RCW header pressure dropped below the low pressure setpoint. This is a designed start signal for the EECW pumps. This was an unplanned actuation of an engineered safety feature.

Description of Event
(Continued)

LER

The assistant unit operator and the assistant shift engineer restarted the required RCW pumps and returned four EECW pumps to standby readiness.

The operating instructions for the RCW system will be revised to provide instructions for alternating pumps in and out of service. A review of this event will be provided to current operations personnel.

1-88-005

Diesel Generator and Emergency Equipment Cooling Water Pump Actuations Due to Personnel Error.

On January 22, 1988, at 1019 hours, a potential transformer fuse compartment was opened for inspection. This action resulted in the deenergization of a 4Kv shutdown board and the start of a diesel generator (DG) and an emergency equipment cooling water (EECW) pump. Units, 1, 2, and 3 were defueled when this event occurred. Operations restored normal power to the shutdown board and returned the DG and EECW pump to standby readiness by 1045 hours. These engineered safety feature actuations were a result of personnel error caused by a failure to observe posted warnings, inadequate communication, and inexperience. The personnel involved have been counseled on the event. Additionally the walkdown coordinator has reviewed the event with engineering and contract personnel to address the extent to which they can direct craft effort during a walkdown. A description of this event will be provided to maintenance, modifications, operations, and engineering groups. The walkdown procedure will be upgraded to include a planning review by a person with integrated plant knowledge when physical work is required.

Description of Event
(Continued)

LER

1-88-007

Residual Heat Removal Service Water Pump Flow Not Demonstrated In Accordance With Technical Specifications Due to Calibration Prior.

On January 27, 1988, at 1300 hours, with all units defueled, a calibration error was discovered in the four residual heat removal service water (RHRSW) pump flow instruments. An indicated flow of 4500 gpm corresponds to an actual flow of approximately 3400 gpm. It was caused by an error on the flow transmitter data sheet and failure to verify the NSSS supplied data sheet against the vendor flow orifice calculations for the flow element. All RHRSW pumps will be demonstrated operable with correctly calibrated flow instruments prior to returning to service. Vendor flow calculation data sheets will be obtained and will be verified for all flow loops with General Electric supplied data sheets.

1-88-008

Standby Gas Treatment Relative Humidity Heaters Have Not Been Tested in Accordance with Technical Specifications Due to Inadequate Procedures.

On January 20, 1988, during a programmatic upgrade of the Browns Ferry surveillance instructions it was discovered that the surveillance instruction which tests the standby gas treatment (SBGT) relative humidity heaters did not fully implement the testing described in the American National Standards Institute (ANSI) standard N510-1975 as required by technical specification (TS) 4.7.B.1.b. All three trains of SBGT were declared inoperable.

ANSI N510-1975 had been incorporated into TSs by August 20, 1976. Since that time the reactors have been operated at power and fuel handling operations have been carried out. Failure to implement a change to the TSs by revising the applicable surveillance instruction allowed operation outside of the TSs.

Description of Event
(Continued)

LER

At the time of discovery all three units were defueled. All three SBGT trains had been previously declared inoperable for other reasons. All fuel handling and operations over the spent fuel pools had been halted.

The surveillance instruction has been revised to fully incorporate the testing described in ANSI N510-1975. The revised surveillance instruction is currently being run on all three trains of SBGT. Any deficiencies identified under the new surveillance instruction will be addressed or corrected prior to declaring the individual trains operable.

1-88-501

Safeguards Event

On January 7, 1988, at 2045 hours, with all units defueled, a Nuclear Security Services (NSS) supervisor, while conducting routine supervisory checks, discovered a NSS officer inattentive to his duties while assigned to a compensatory post. The compensatory post had been established earlier that day for the failure of an alarm zone of the perimeter intrusion detection system, due to adverse weather. The NSS supervisor immediately relieved the NSS officer of his duties, reestablished the compensatory post, and conducted of followup search of the area with the assistance of other NSS personnel. The Shift Engineer was notified of the event, and one-hour telephone call was made to NRC pursuant to the requirements of 10 CFR 73.71, Appendix G, I.c.

OFFSITE DOSE CALCULATION MANUAL CHANGES

FEBRUARY 1988

No changes were made to the Browns Ferry offsite dose calculation manual during the month.

RADWATE SUMMARY

FEBRUARY 1988

Common

The radwaste system performed as designed. Approximately 7.43E+05 gallons of waste liquid were discharged containing approximately 1.16E-02 curies of activity.

There were four spent resin shipments and one trash shipment during February. All shipments were to Barnwell, SC.

Solid Radioactive Waste
February 1988

Dewatered Spent Resin Shipments (1)

Volume of condensate/waste resin shipped: 16.31 Cu.M. (576 Cu.Ft.)

Total curies shipped: 17.8504

Volume of reactor cleanup resin shipped: None

Total curies shipped: N/A

Date Shipped	Disposal Facility	Type of Resin
02/ 02/ 88	Barnwell, SC	CWPS
02/ 12/ 88	Barnwell, SC	CWPS
02/ 19/ 88	Barnwell, SC	CWPS
02/ 26/ 88	Barnwell, SC	CWPS

Dry Active Waste (1)

Number of drums shipped: None Volume: N/A

Total curies shipped: N/A

Number of boxes shipped: 10 Volume: 26.59 Cu.M (939.1 Cu.Ft.)

Total curies shipped: 0.3803

Date Shipped	Disposal Facility	Type of Package
02/ 18/ 88	Barnwell, SC	Boxes

(1) All Shipments were by Sole-Use Truck

Solid Radioactive Waste (Continued)
February 1988

Summary

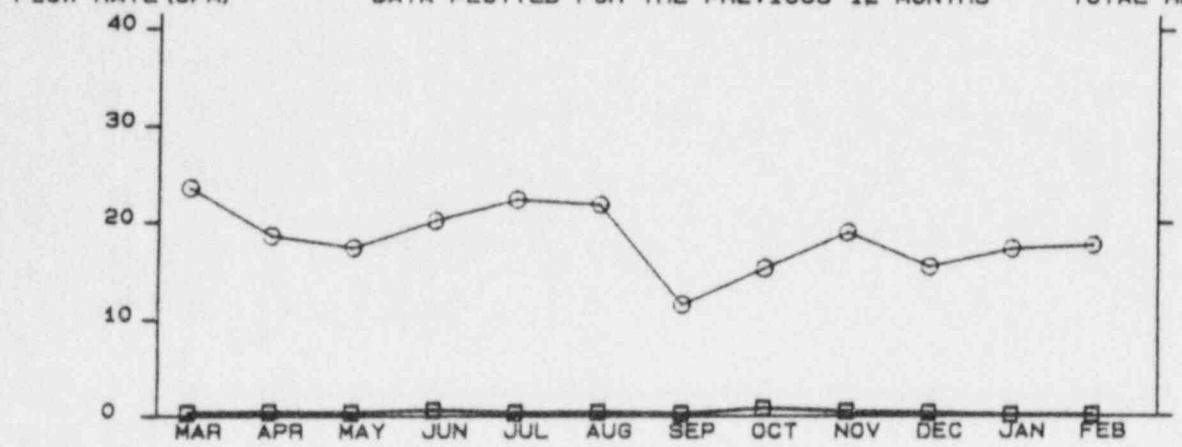
Type of Waste	Shipped to Barnwell During Month	Packaged on Site Awaiting Shipment	Gross Curie Content by Type of Waste	Estimated Generation for Next Month
Compacted Drums	0 Cu.Ft.(2)	165 Cu.Ft.	0.00E+00	240 Cu.Ft.(2)
Boxes	837 Cu.Ft.(2)	465 Cu.Ft.	3.75E-01	700 Cu.Ft.(2)
Uncompacted Drums	0 Cu.Ft.(2)	0 Cu.Ft.	0.00E+00	0 Cu.Ft.(2)
Boxes	102 Cu.Ft.(2)	502 Cu.Ft.	5.35E-03	450 Cu.Ft.(2)
Resins CWPS	720 Cu.Ft.(1)	1694 Cu.Ft.(3)	1.79E+01	400 Cu.Ft.(1)
RWCU	0 Cu.Ft.(1)	500 Cu.Ft.(3)	0.00E+00	30 Cu.Ft.(1)
TOTALS	1793 Cu.Ft.(2)	1132 Cu.Ft.(4)	1.82E+01	1390 Cu.Ft.(4)

Total volume of waste shipped during the month: 1793 Cu.Ft.(2)
Total volume of waste shipped year to date: 3864 Cu.Ft.
Unused 1988 burial volume allocation at Barnwell: 78465 Cu.Ft.

(1) Actual resin volume.
(2) Container burial volume.
(3) Estimated volume in separators
(4) Does not include resins

LIQUID RADWASTE
MONTHLY OPERATING REPORT
FEBRUARY 1988

TOTAL RIVER RELEASE
DATA PLOTTED FOR THE PREVIOUS 12 MONTHS

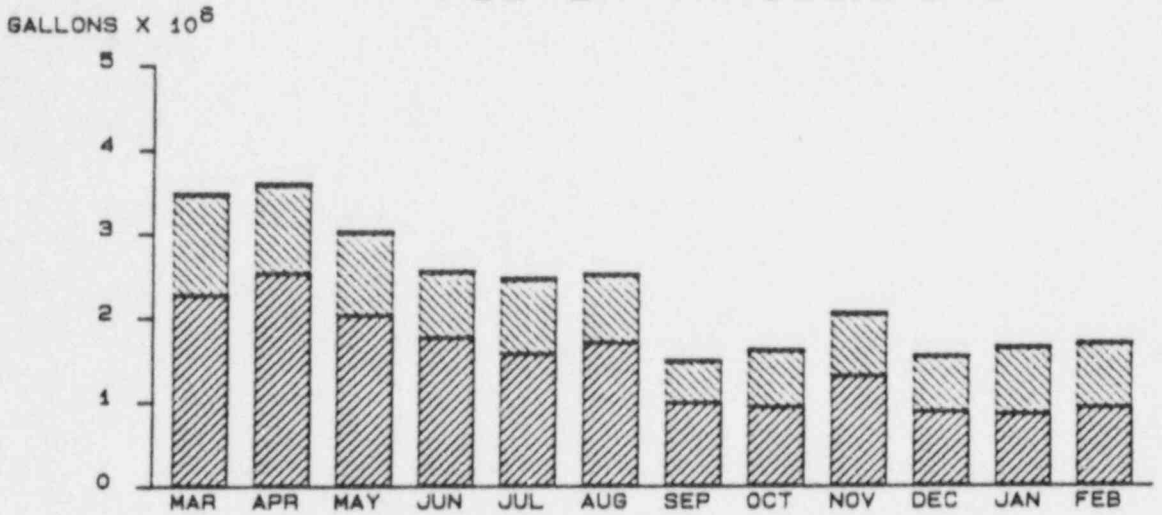


FLOW RATE (GPM)	
HI	23.62
LOW	11.62
AVG	18.42

TOTAL RELEASE (CI)	
HI	0.05
LOW	0.01
AVG	0.03

○ FLOWRATE
□ RELEASE (CI)

FILTER THROUGHPUTS



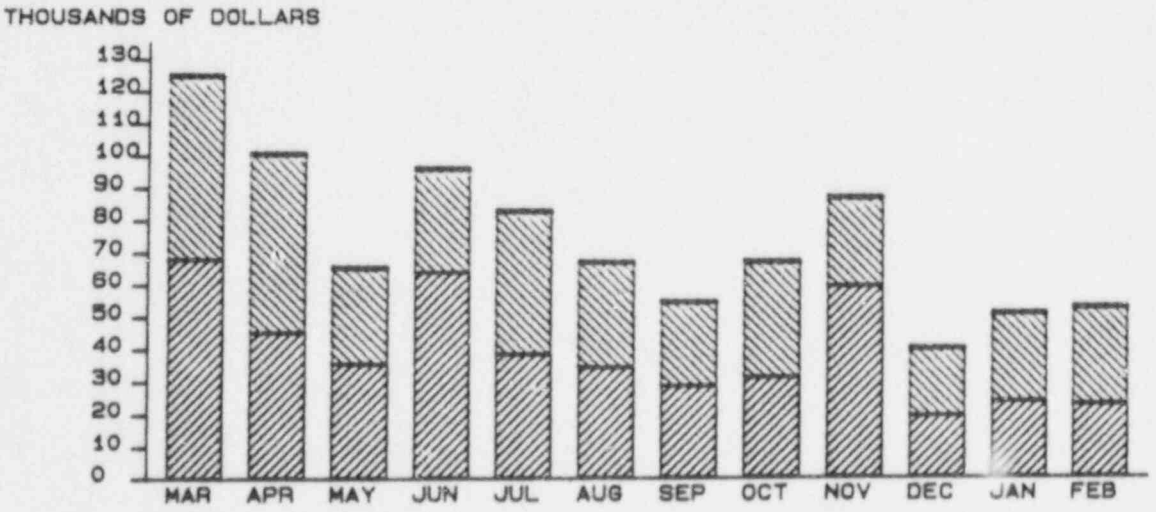
THROUGHPUT (GALS)

WASTE	
HI	0.25E+07
LOW	0.86E+06
AVG	0.15E+07

FLOOR DRAIN	
HI	0.12E+07
LOW	0.49E+06
AVG	0.83E+06

LAUNDRY	
HI	0.11E+05
LOW	0.00E+00
AVG	0.69E+04

COST OF OPERATION



WASTE COLLECTOR SYSTEM
FLOOR DRAIN SYSTEM
LAUNDRY SYSTEM

COST OF OPERATION (DOLLARS)

WASTE	
HI	0.68E+05
LOW	0.19E+05
AVG	0.39E+05

FLOOR DRAIN	
HI	0.57E+05
LOW	0.21E+05
AVG	0.35E+05

LAUNDRY	
HI	0.18E+03
LOW	0.00E+00
AVG	0.43E+02

STARTING 3-87 COSTS INCLUDE RESIN DISPOSAL

OPERATING STATISTICS

OPERATING DATA REPORT

DOCKET NO. 50-259
DATE 03-01-88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

OPERATING STATUS

1. Unit Name: Browns Ferry Unit One
2. Reporting Period: February 1988
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

Notes

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

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	696	1440	119,120
12. Number of Hours Reactor Was Critical	0	0	59,521.38
13. Reactor Reserve Shutdown Hours	0	0	6,997.44
14. Hours Generator On-Line	0	0	58,267.26
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	0	168,066,787
17. Gross Electrical Energy Generated (MWH)	0	0	55,398,130
18. Net Electrical Energy Generated (MWH)	-2003	-2831	53,703,571
19. Unit Service Factor	0	0	48.91
20. Unit Availability Factor	0	0	48.91
21. Unit Capacity Factor (Using MDC Net)	0	0	42.33
22. Unit Capacity Factor (Using DER Net)	0	0	42.33
23. Unit Forced Outage Rate	100	100	41.96

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

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-260
DATE 03-01-88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

OPERATING STATUS

1. Unit Name: Browns Ferry Unit Two
2. Reporting Period: February 1988
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	696	1440	114,007
12. Number of Hours Reactor Was Critical	0	0	55,860.03
13. Reactor Reserve Shutdown Hours	0	0	14,200.44
14. Hours Generator On-Line	0	0	54,338.36
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	0	153,245,167
17. Gross Electrical Energy Generated (MWH)	0	0	50,771,798
18. Net Electrical Energy Generated (MWH)	-1,973	-3,959	49,179,874
19. Unit Service Factor	0	0	47.66
20. Unit Availability Factor	0	0	47.66
21. Unit Capacity Factor (Using MDC Net)	0	0	40.50
22. Unit Capacity Factor (Using DER Net)	0	0	40.50
23. Unit Forced Outage Rate	100	100	41.18

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

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-296
DATE 03-01-88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

OPERATING STATUS

1. Unit Name: Browns Ferry Unit Three
2. Reporting Period: February 1988
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

Notes

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

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	696	1440	96,432
12. Number of Hours Reactor Was Critical	0	0	45,306.08
13. Reactor Reserve Shutdown Hours	0	0	5,149.55
14. Hours Generator On-Line	0	0	44,194.76
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	0	131,868,267
17. Gross Electrical Energy Generated (MWH)	0	0	43,473,760
18. Net Electrical Energy Generated (MWH)	-2,570	-7,228	42,033,920
19. Unit Service Factor	0	0	45.83
20. Unit Availability Factor	0	0	45.83
21. Unit Capacity Factor (Using MDC Net)	0	0	40.93
22. Unit Capacity Factor (Using DER Net)	0	0	40.93
23. Unit Forced Outage Rate	100	100	44.57

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

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-259
Unit One
DATE 03-01-88
COMPLETED BY J.D. Crawford
TELEPHONE (205)729-2507

MONTH FEBRUARY 1988

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

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.

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-260
Unit Two
DATE 03-01-88
COMPLETED BY J.D. Crawford
TELEPHONE (205)729-2507

MONTH FEBRUARY 1988

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

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.

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-296
Unit Three
DATE 03-01-88
COMPLETED BY J.D. Crawford
TELEPHONE (205)729-2507

MONTH FEBRUARY 1988

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

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.

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-259
UNIT NAME One
DATE 03-01-88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

REPORT MONTH February

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
315	02/01/88	F	696	F	4				Administrative hold to resolve various TVA and NRC concerns.

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February

DOCKET NO 50-260
UNIT NAME Two
DATE 03-01-88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

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	02/01/88	F	696	F	4				Administrative hold to resolve various TVA and NRC concerns.

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-296
UNIT NAME Three
DATE 03-01-88
COMPLETED BY J. D. Crawofrd
TELEPHONE (205) 729-2507

REPORT MONTH February

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
157	02-01-88	F	696	F	4				Administrative hold to resolve various TVA and NRC concerns.

[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)

NUCLEAR PLANT OPERATING STATISTICS

Browns Ferry Nuclear Plant

Period Hours 696 Month February 1988

	Item No.	Unit No.	Unit 1	Unit 2	Unit 3	Plant	
Generation	1	Average Hourly Gross Load, kW	0	0	0	0	
	2	Maximum Hour Net Generation, MWh	0	0	0	0	
	3	Core Thermal Energy Gen, GWD (t)[2]	0	0	0	0	
	4	Steam Gen. Thermal Energy Gen., GWD (t)[2]					
	5	Gross Electrical Gen., MWh	0	0	0	0	
	6	Station Use, MWh	2003	1973	2570	6546	
	7	Net Electrical Gen., MWh	-2003	-1973	-2570	-6546	
	8	Station Use, Percent	0	0	0	0	
	9	Accum. Core Avg. Exposure, MWD/Ton[1]	0	0	0	0	
	10	CTEG This Month, 10^6 BTU	0	0	0	0	
	11	SGTEG This Month, 10^6 BTU					
	12						
Factors & Use	13	Hours Reactor Was Critical	0	0	0	0	
	14	Unit Use, Hours-Min.	0	0	0	0	
	15	Capacity Factor, Percent	0	0	0	0	
	16	Turbine Avail. Factor, Percent	0	0	0	0	
	17	Generator Avail. Factor, Percent	0	0	0	0	
	18	Turbogen. Avail. Factor, Percent	0	0	0	0	
	19	Reactor Avail. Factor, Percent	0	0	0	0	
	20	Unit Avail. Factor, Percent	0	0	0	0	
	21	Turbine Startups	0	0	0	0	
	22	Reactor Cold Startups	0	0	0	0	
	23						
Efficiency	24	Gross Heat Rate, Btu/kWh	0	0	0	0	
	25	Net Heat Rate, Btu/kWh	0	0	0	0	
	26						
	27						
Temp & Press	28	Throttle Pressure, psig	0	0	0	0	
	29	Throttle Temperature, °F	0	0	0	0	
	30	Exhaust Pressure, InHg Abs.	0	0	0	0	
	31	Intake Water Temp., °F	0	0	0	0	
	32						
Flows	33	Main Feedwater, M lb/hr					
	34						
	35						
	36						
Misc.	37	Full Power Capacity, EFPD (3)	(4)	(4)	(4)		
	38	Accum. Cycle Full Power Days, EFPD	(4)	(4)	(4)		
	39	Oil Fired for Generation, Gallons				4,340	
	40	Oil Heating Value, Btu/Gal.				139,700	
	41	Diesel Generation, MWh				33.6	
	42						

Station Data		Max. Hour Net Gen.			Max. Day Net Gen.		Load Factor, %
		MWh	Time	Date	MWh	Date	
	43	0			0		0

Remarks: [1]For BFNP this value is MWD/STU and for SQNP and WBNP this value is MWD/MTU.
[2](t) indicates Thermal Energy.
3 Information furnished by Reactor Analysis Group, Chattanooga
4 Adminnistrative hold.

John Walker 3.1.88

Date Submitted Date Revised

TVA 6560C (PP 3-76)

UNIT OUTAGE AND AVAILABILITY

Browns Ferry Nuclear Plant

Licensed Reactor Power 3293 MW(th)

Unit No. One

Generator Rating 1152 MW(e)

Month/Year February 1988

Design Gross Electrical Rating 1098.4 MW

Period Hours 696

Day	Time Unit Available						Time Not Available								Unit				OUTAGE CAUSE	METHOD OF SHUTTING DOWN REACTOR	UNIT STATUS DURING OUTAGE	CORRECTIVE ACTION TAKEN TO PREVENT REPETITION
	Total		Gen.		Not Used		Turbine		Gen.		Reactor		Unit		Time Out		Time In					
	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min				
1							24	00	24	00	24	00	24	00					Administrative hold continues			
2																						
3																						
4																						
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27																						
28																						
29							24	00	24	00	24	00	24	00								
30																						
31																						
Total							696	00	696	00	696	00	696	00								

TVA 6560C (PP 3-76)

UNIT OUTAGE AND AVAILABILITY

Browns Ferry Nuclear Plant

Licensed Reactor Power 3293 MW(th)

Unit No. Two

Generator Rating 1152 MW(e)

Month/Year February 1988

Design Gross Electrical Rating 1098.4 MW

Period Hours 696

Day	Time Unit Available						Time Not Available								Unit									
	Total		Gen.		Not Used		Turbine		Gen.		Reactor		Unit		Time Out		Time In		OUTAGE CAUSE	METHOD OF SHUTTING DOWN REACTOR	UNIT STATUS DURING OUTAGE	CORRECTIVE ACTION TAKEN TO PREVENT REPETITION
	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min				
1							24	00	24	00	24	00	24	00					Administrative hold continues			
2																						
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27																						
28																						
29							24	00	24	00	24	00	24	00								
30																						
31																						
Total							696	00	696	00	696	00	696	00								

TVA 6560C (PP-3-76)

UNIT OUTAGE AND AVAILABILITY

Browns Ferry Nuclear Plant

Licensed Reactor Power 3293 MW(th)

Unit No. Three

Generator Rating 1152 MW(e)

Month/Year February 1988

Design Gross Electrical Rating 1098.4 MW

Period Hours 696

Day	Time Unit Available						Time Not Available								Unit		OUTAGE CAUSE	METHOD OF SHUTTING DOWN REACTOR	UNIT STATUS DURING OUTAGE	CORRECTIVE ACTION TAKEN TO PREVENT REPETITION
	Total		Gen.		Not Used		Turbine		Gen.		Reactor		Unit		Time Out	Time In				
	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs	Min	Hrs Min	Hrs Min				
1							24	00	24	00	24	00	24	00						
2																	Administrative hold continues			
3																				
4																				
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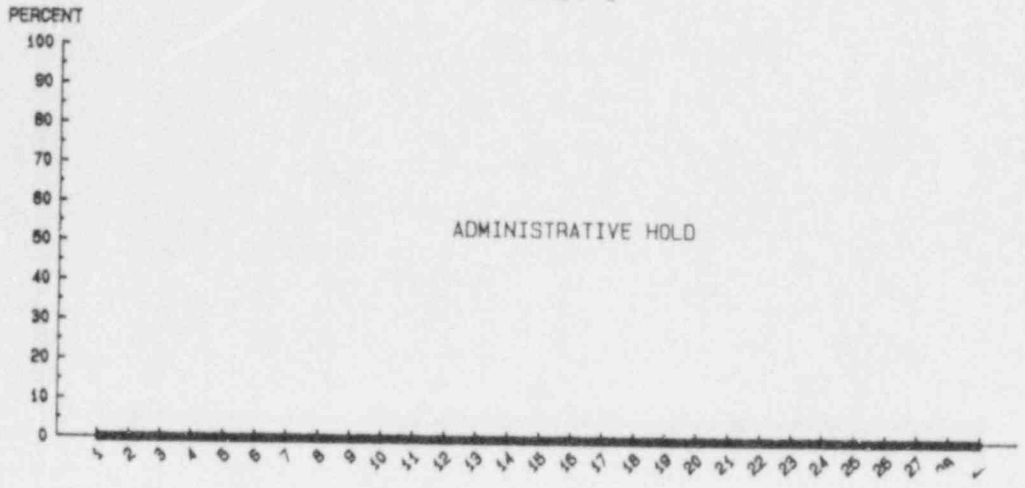
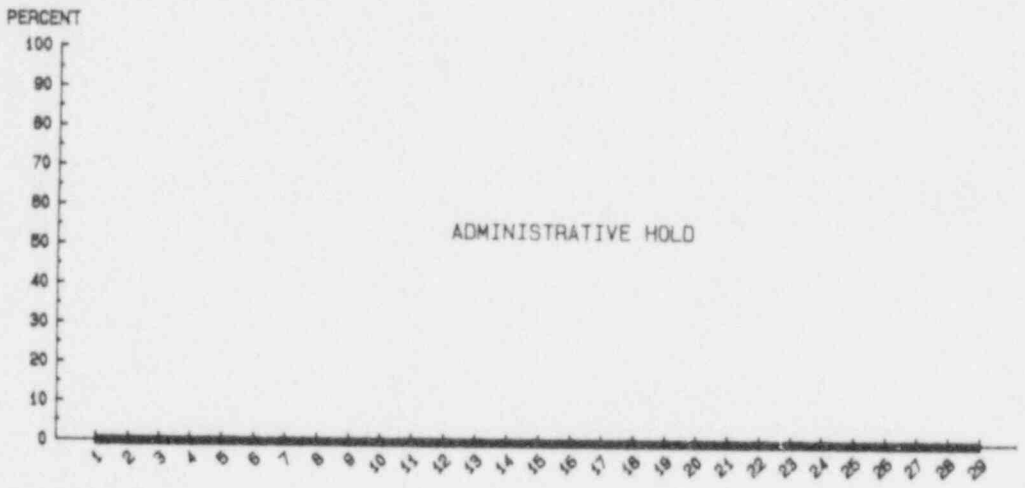
27																				
28																				
29							24	00	24	00	24	00	24	00						
30																				
31																				
Total							696	00	696	00	696	00	696	00						

REACTOR POWER PERCENT
FEBRUARY 1988
UNIT 1



UNIT 2



UNIT 3

MAINTENANCE SUMMARY

MONTHLY REPORT

FEBRUARY, 1988

Unit Common
Major Routine Activities --

General Electric generator specialist and technicians on site to repair unit two main generator stator cooling leaks.

Major maintenance continues on 500 KV power circuit breaker number 5214.

CIRCUIT BREAKER REBUILDS:	4160V	480/250V
Total number of breakers to be rebuilt	303	494
Total number of breakers rebuilt	9	16
Completed this month	0	3

Parts are on order to rebuild circuit breakers.

While troubleshooting the unit two preferred MMG to determine the cause of the breaker tripping before the MMG set was up to speed, it was discovered that the breaker thermal trip devices were undersized. New overloads have been ordered and a DCR has been written to replace them.

The 2C RHR pump motor was sent to the power service shop to be repaired after failing during a restart test.

Time delay relays responsible for starting the RBCCW pumps were calibrated using setpoints provided by design.

The Electrical Technical Section performed technical reviews on over 30 procedures during February, 1988.

Fuse Control Program: A revision to BF 6.12 is in word processing. Drawings are being reviewed to add fuses to the fuse data base.

Contract TSD 044: Information from the contractors will start being reviewed the first part of May, 1988.

Modifications: Information for fuse block changeout for circuit protection is beginning to come in from modifications.

ELECTRICAL EQUIPMENT LIST: 435 drawings were received in February, 1988. 3985 drawings are in backlog.

Repairs and restart testing complete on battery charger shutdown board "A".

Received twenty 3DCU-9 batteries to replace previously identified weak or faulty batteries currently in use.

Capacity test performed on D/G 3A battery. Battery at 109 per cent of rated capacity.

Battery charger Shutdown board "B" out of service due to undocumented modification.

Electrical Technical Section
Monthly Report

Material for main charger no. 1 on site and repairs underway.

An electrical engineer from the Electrical Technical Section attended a battery maintenance and testing seminar in February, 1988.

Signature analysis began on February 17, 1988 with seven valves completed. Currently working two crews. One crew is continuing with environmental qualifications and final inspections, with twenty-eight final inspections complete. The other crew is doing signature analysis.

Workplans 2222-84, 2224-84, and 2226-84 were revised during February, 1988 to support work on systems 73, 69 and 1.

I. WORK TIME SCHEDULE

	Received/ Assigned	Completed	Open
Red Folders	5	1	12
Orange Folders	2	5	10
Yellow Folders	0	0	1
Blue Folders	5	5	5
Purple Folders	0	1	0
Active Engineering Assignments	0	1	16
Engineering Backlog	0	5	65
New Engineering Assignments	0	0	0
Completed Engineering Assignments	0	6	0

II. COMMITMENT TRACKING

Licensing Issues (NCO & SLT)			
NCO	0	4	21
SLT	0	1	3
PORS Tracking Items (BFC)	2	2	1
CAQRs	6	1	11
Average Age of CAQRs	Two months and five days		
Employee Concerns	0	0	1
Safety Issues List	0	0	0

III. STAFFING LEVELS AND TRAINING

Personnel	Approved Headcounts	Current Headcounts
ASP		29
ATL		5
HTL		0
Contractors		5
TOTAL		39

IV. OVERTIME 5.7%

V. PROCEDURES

5 procedures PORC approved
1 procedures sent to Word Processing

VI. 15 Outstanding Status "H" MRs
4 OUTSTANDING STATUS "Q" MRs

I&C TECHNICAL
FEBRUARY 1988

I. Work Item Schedule

	Received/ Assigned	Completed	Open
Red Folders	2	3	1
Orange Folders	1	0	9
Yellow Folders	0	0	0
Blue Folders	3	2	2
Total Assignments			
Active Engineering Assignments	8	11	47
Engineering Backlog			14

II. Commitment Tracking

Licensing Issues(NCO & SLT)			
NCO	0	2	16
SLT	1	0	7
PORS Tracking Items(BFC)	0	0	3
DR	0	2	0
CAR	0	0	0
CAQR (Onsite)	1	1	13
CAQR (Off-site)	1	1	0
Average Age of CAQRs	6.25 months		
Employee Concerns	0	0	0
Safety Issues List	0	0	0

III. Staffing Levels and Training

Personnel	Approved Headcounts	Current Headcounts
ASP	17	13
ATL	4	5
HTL	0	0
Contractors	-	4
TOTAL	21	22

IV. Overtime 10.5%

V. Procedures

86 procedures were sent to Word Processing

I&C TECHNICAL
FEBRUARY 1988

SUMMARY

The major activities of the month involved preparation of procedures to support the retest schedule and the scheduled NRC SI review. Scaling and Setpoint Documents to support these procedures are also being issued.

MECHANICAL TECHNICAL SECTION MONTHLY REPORT
COMMON UNIT ONLY (UNIT 0)
FEBRUARY 1988

Common

No major nonroutine activities.

1. Closed the following commitments:

   a. IE Notice 87-039 - Control of Hot Particle Contamination at Nuclear Power Plants

   b. INPO O&MR 317 - System Flow Rates Degraded by Replacement Pump Impellers

   c. NCO 870045002 - RHRSW Pump

   d. R35 880128 148 - Spare Wheel Forgings for Turbine Rebuild Project

   e. R35 880203 299 - Approval of Master Specification MS-NEB-009

   f. R35 880204 338 - Approval of Master Specification MS-MEB-007

   g. R35 880204 339 - Approval of Master Specification MS-MEB-003

   h. R35 880208 438 - Approval of Master Specification MS-NEB-013

   i. R35 880208 439 - Approval of Master Specification MS-CEB-010

   j. R35 880208 440 - Approval of Master Specification MS-MEB-010

   k. R35 880209 468 - Approval of Master Specification MS-MEB-005

   l. R35 880210 501 - Orientation of Nuclear Supervisors

   m. R35 880217 639 - Approval of Master Specification MS-CEB-001

   n. R35 880222 722 - Approval of Master Specification MS-MEB-013

   o. G-29(R0) - PS 3.M.9(R0)

   p. G-29(R0) - SA-U-6(R1)

   q. G-29(R0) - GM-FC-P-2(R3)

   r. G-29(R0) - GM-FC-U-2(R3)

   s. G-29(R0) - GT-P-1(R3)

   t. G-29(R0) - PS 2.M.1.1 Add.2(R4)

   u. G-29(R0) - PS 3.M.3.1 Add.4(R3)

v. G-29(R0) - PS 1.C.1.2 Fig.1(R2)

w. G-29(R0) - PF1079(R0) - Purchase Specification for Soldering Filler Metals

x. N-GP-7(R0) - Verification of Component Support Settings

y. NQAM,II,5.1(R5) - Generic Procedure - Inservice Inspection

z. NQAM,II,6.3(R1) - Non-destruction Examination

aa. SRN-G-32-20 - Bolt Anchors Set in Hardened Concrete

bb. SRN-G-38-21 - Installing Insulated Cables Rated up to 15,000 Volts

cc. SRN-G-51-2 - Grouting and Dry-Packing of Base Plate and Joints

dd. SRN-G-34-1 - Repair of Concrete

ee. SRN-G-66-5 - Installation, Inspection, and Testing of Maxi-Bolt Undercut Anchors

ff. R00 880216 563 - Purchase of a Cracked GE Rotor Wheel

gg. R00 880219 698 - G-53 Bolting Material - Proposed Revision

2. The following instructions were approved, revised, or cancelled.

a. MCI-0-001-VLV007 - Main Steam Startup Bypass Valves; Disassembly, Inspection, Rework, and Reassembly

b. MCI-0-001-VLV012 - Reactor Feedwater Pump Turbine Low-pressure Stop Valves FCV-1-123, FCV-1-131, and FCV-1-139; Disassembly, Inspection, Rework, and Reassembly

c. MCI-0-002-PMP007 - Condensate Booster Pump Auxiliary Oil Pump; Disassembly, Inspection, Rework, and Reassembly

d. MCI-0-032-VLV002 - Drywell Air Operated Suction Flow Control Valves FCV-32-62, and 32-63; Disassembly, Inspection, Rework, and Reassembly

e. MCI-0-033-CMP003 - Service Air Compressor E, Norberg Type V-100; Disassembly, Inspection, Rework, and Reassembly

f. MCI-0-073-TRB001 - High-pressure Coolant Injection Pump Turbine - Terry Turbine CCS; Disassembly, Inspection, Rework, and Reassembly

g. MCI-0-099-DRV001 - Reactor Protection System Motor Generators A & B; Disassembly, Inspection, Rework, and Reassembly

MECHANICAL TECHNICAL SECTION MONTHLY REPORT
COMMON UNIT ONLY (UNIT 0)
FEBRUARY 1988

h. MCI-0-252-DRV001 - Unit Preferred Motor Generator (MG) Set; Disassembly, Inspection, Rework, and Reassembly

i. MCI-1-069-VLV004 - Reactor Water Cleanup

j. MMI-7 - Removal, Repair, Replacement, and Testing of Control Rod Drives

k. MMI-13 - Main Steam Relief Valves

l. MMI-28 - Control Rod Drive Hydraulic Control Unit Module (Repair, Removal, and Replacement)

m. MMI-37 - Preventive Maintenance Program - Filters

n. MMI-45 - Hydraulic Shock and Sway Arrestor - Bergen Paterson and Grinnell, Unit Removal; Disassembly, Reassembly, and Replacement

o. MMI-51 - Maintenance of CSSC/Non-CSSC Valves and Flanges

p. MMI-59A - Instructions for Removal and Installing Pacific Scientific Mechanical Snubbers and the Torus Dynamic Restraints

q. MMI-116 - Inspection and Maintenance of Doors

r. MMI-153 - Temporary Ventilation for the Electrical Equipment Rooms

3. The following CAQRs (Conditions Adverse to Quality Reports) were closed.

a. BFP 87-580 - Discrepancy identified between bolt material as specified

b. BFP 87-815 - Stainless clad portion of upper tube sheet

c. BFP 87-885 - Reactor building equipment door (3 & 4 #226) seals

d. BFP 87-932 - Bolts retaining the snubber base and the extension not safety wired

e. BFP 88-0031 - Proper weld maps and weld data sheets initiated prior to welding

4. The Mechanical Technical Section devoted 300 hours to training during the month of February.

0996G
CLG

MODIFICATIONS MONTHLY REPORT

FEBRUARY 1988

MAJOR WORK PERFORMED	ECN	NARRATIVE
Appendix R	P0808	Continued conduit and cable work on control power circuits (work plan 2048-87 and 2047-87).
	P0885	Continued conduit and support work on RB fire detectors (work plans 2012-87, 2013-87, 2014-87, and 2015-87).
	P0883	Continued changeout of fuses and fuse blocks (work plan 2112-87).
	P0889	Continued reroute of conduit for separation (work plan 2053-87).
	P0913	Completed craft work on fuse and fuse block replacement (work plan 1022-86).
Environmental Qualification	P3019	Field completed System 71 pressure switch replacement.
	P3092	Field completed FIS 74-50 and 64 replacement.
	P3145	Continued electrical conduit sealing activities (work plans 2073-85, 2074-85, 2075-85, and 2078-85).
	P3180	Continued electrical work assiciated with containment penetration replacement (work plans 2036-87 and 2105-87).
	P3205	Continued small piping and support work on H_2O_2 analyzer lines (work plans 2158-87, 2159-87, 2199-87, 2200-87, 2160-87, 2161-87, 2162-87, 2201-87, 2202-87, and 2163-87).
	P7039	Started craft work on transformer 2A replacement (work plan 2073-88).

MAJOR WORK PERFORMED	ECN	NARRATIVE
Seismic Issues	P0370	Continued structural work on seismic qualification and designation of block walls (work plans 1030-87, 2092-87, and 3024-87).
	P0361	SMMI rework of torus attached piping and drain supports continued. Work plans 2067-84, 2160-85, 2074-84, 6787, 2080-84, 2059-84, 2170-87, and 2208-87 were field completed.
	P0859	Continued work on non-CRD attachments and catwalks R9 and 13 (work plans 2066-87, 2205-86, 2140-87, 2194-87, and 2207-87).
	P0933	Completed craft work seismic qualification of Unit 2 RB elev 593-621 conduit (work plans 2010-87 and 2157-87).
	P0998	Drywell catwalk upper elevation work continued on a concerted basis (work plans 2147-87 and 2148-87).
	P2036	Continued additional 79-14 support fixes to CRD return piping (work plan 1036-87).
	P2044	Completed craft work on Unit 1 RB drain and sump pump 79-14 modifications (work plan 1033-87).
	P2054	Completed craft work on additional 79-14 fixes to RBCCW piping (work plan 1034-87).
	P2064	Completed craft work on additional 79-14 fixes to Unit 3 RB floor drain piping (work plan 3033-87).
	P2088	Started field work on aditional 79-14 fixes to fuel pool cooling system (work plan 2274-87).
	P2154	Started field work on RHRSW and EECW 79-14 fixes (work plans 0015-88, 0017-88, and 2062-88).
	P7018	Started craft work on drywell HVAC seismic qualification (work plans 2282-87, 2281-87, 2280-87, 2279-87, and 2228-87).

MAJOR WORK PERFORMED	ECN	NARRATIVE
Seismic Issues (Continued)	P7029	Continued repair of lower drywell structural steel (work plan 2234-87).
	P7083	Started craft work on common area tubing seismic qualification (work plans 0008-88, 0009-88, and 0010-88).
	P7085	Started craft work on Unit 2 tubing seismic qualification (work plans 2059-88 and 2060-88).
TMI Mods	P0324	Continued electrical work on high-range containment radiation monitors (work plans 2160-86 and 2241-84).
	P0354	Continued sample line work on stack radiation monitor (work plan 2142-85).
Appendix J	P0959	Support installation continued on RBCCW system (work plan 2122-87).
Other	P0085	Started reroute of conduit on drywell pressure and temperature upgrade (work plan 2192-87).
	P0286	Continued work on yard security lighting (work plans 0017-86 and 0022-86).
	P0284	Continued fabrication and installation of seismic conduit supports for the acoustic monitoring system (work plan 2205-84).
	P0384	Continued tubing and electrical work on containment purge valves (work plan 2049-86).
	P0392	Continued SMMI rework of scram discharge volume supports.
	P0569	Continued support work on RPV vent line (work plans 2051-84 and 2204-84).
	P0761	Field completed RB HVAC intrusion barrier installation.
	P0612	Continued support work on flex lines to MSRVs (work plan 2266-87).

MAJOR WORK PERFORMED	ECN	NARRATIVE
Other (Continued)	P0720	Continued work of jet pump instrumentation lines (work plan 2109-85).
	P0956	Continued installation of duct and duct supports for new shutdown board room HVAC (work plans 2156-87, 2228-87, 2229-87, 2248-87, 2253-87, 2254-87, 2262-87, 2268-87 2155-87, 2263-87, 2250-87, and 2249-87).
	P1001	Recirculation Loops A and B support work continued (work plans 2283-87, 2284-87, 2009-88, 2008-88).
	P5269	Installation of supports for uninterruptable demineralized water correction for torus water level transmitters continued (work plan 2292-87).
	P5480	Installation of vessel drain supports continued (work plan 2218-87).
	P5291	Continued reactor water level instrument sense line modification (work plans 2153-87, 2154-87, and 2232-86).
	P5434	Continued level transmitter sense line reroute (work plan 2187-87).
	N/A	Completed work required to allow removal of Unit 2 condenser tubes for replacement.

TVA
GENERATING
AVAILABILITY
DATA SYSTEM
(GADS)
EVENT REPORT

CODE 201 YEAR 1988

TVA GADS EVENT REPORT FORM

MONTH FEBRUARY

NET WINTER MDC, MW 1065 PLANT Browns Ferry UNIT 1

Line	CARD CODE (A/C, D)	EVENT TYPE	COMPONENT CAUSE CODE	COMPONENT IDENTIFICATION	NET CAPABILITY DURING - MW	START TIME MONTH	START TIME DAY	START TIME HOUR	START TIME MIN.	END TIME MONTH	END TIME DAY	END TIME HOUR	END TIME MIN.	EVENT CONTRIBUTION CODE	LOAD/ATD/SYN	VERBAL DESCRIPTION (MAY BE CONTINUED ON THE NEXT CARD IN COLUMNS 38-77 IF SO PUT A 1 IN COLUMN 6 AND COMPLETE COLUMNS 7-27 OF THE CONTINUATION CARD)
1	A	D	96	5	10	00	00	00	00					1		ADMIN HOLD TVA & NRC CONCERNS
2	C	D	96	5	10	00	00	00	00							
3	D	F	2	0	7	0	00	00	00					3		EDC-6 REFUEL OUTAGE
4	D	F	4	4	5	0	00	00	00					3		TURB INSP & OVERHAUL
5	D	F	4	8	3	0	00	00	00					3		GEN INSP & OVERHAUL
6	D	F	2	6	2	8	00	00	00					3		TORUS MOD
7	D	F	2	2	3	0	00	00	00					3		RECIRC PIPING INSP
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																

CODE 202 YEAR 1988

TVA GADS EVENT REPORT FORM

MONTH FEBRUARY

NET WINTER MDC, MW 1065 PLANT Browns Ferry UNIT 2

	CARD CODE	D/I	EVENT TYPE	COMPONENT	CAUSE CODE	COMPONENT IDENTIFICATION	NET CAPABILITY	DURING - MW	START TIME MONTH	START TIME DAY	START TIME HOUR	START TIME MIN.	END TIME MONTH	END TIME DAY	END TIME HOUR	END TIME MIN.	EVENT CONTRIBUTION CODE	CATEGORY DESIG.	VERBAL DESCRIPTION (MAY BE CONTINUED ON THE NEXT CARD IN COLUMNS 38-77 IF SO PUT A 1 IN COLUMN 6 AND COMPLETE COLUMNS 7-27 OF THE CONTINUATION CARD)
1	A	D	1	2	5	1	0	0	0	0	0						J	J	ADMIN HOLD TVA & NRC CONCERNS
2	C	D	1	2	5	1	0	0	0	0	0						J	J	
3	D	S	E	2	0	7	0	0	0	0	0						3		EOC - 5 REFUEL OUTAGE
4	D	S	E	4	4	5	0	0	0	0	0						3		TURB INSP & OVERHAUL
5	D	S	E	4	8	3	0	0	0	0	0						3		GEN INSP & OVERHAUL
6	D	S	E	2	6	2	8	0	0	0	0						3		TORUS MOD
7	D	S	E	2	2	3	0	0	0	0	0						3		RECIRC PIPING INSP
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			

TVA GADS EVENT REPORT FORM

CODE 203 YEAR 1988 MONTH FEBRUARY

NET WINTER MDC, MW 1065 PLANT Browns Ferry UNIT 3

VERBAL DESCRIPTION (MAY BE CONTINUED ON THE NEXT CARD IN COLUMNS 38-77. IF SO PUT A 1 IN COLUMN 6 AND COMPLETE COLUMNS 7-27 OF THE CONTINUATION CARD)

Line	Card Code/A.C. ID	Event Type	Component Cause Code	Component Identification	NBT Capability During - MW	Start Month	Start Day	Start Hour	Start Min	End Month	End Day	End Hour	End Min	Event Contribution Code	Load/Dat/Desyn	Verbal Description
1	A	U1	9510		0000											
2	A	U1	9510		0000									1	L	ADMIN HOLD TVA & NRC CONCERNS
3	D	SE	4450		0000											
4	D	SE	4830		0000									3		TURB INSP & OVERHAUL
5	D	SE	2628		0000									3		GEN INSP & OVERHAUL
6	D	SE	2230		0000									3		TORUS MOD
7														3		RECIRC PIPING INSP
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																

OTHER REPORTS

CHEMISTRY SUMMARY

FEBRUARY 1988

Primary Coolant Chemistry

Unit 1

The conductivity of the reactor coolant remained within technical specification and fuel warranty limits during the month. Chloride concentration and pH of the reactor coolant remained within technical specification and fuel warranty limits during the month. This calendar year, the technical specification and fuel warranty limits for conductivity and chloride have not been exceeded.

Unit 2

The conductivity of the reactor coolant remained within technical specification and fuel warranty limits during the month. Chloride concentration and pH of the reactor coolant remained within technical specification and fuel warranty limits during the month. This calendar year, the technical specification and fuel warranty limits for conductivity and chloride have not been exceeded.

Unit 3

The conductivity of the reactor coolant remained within technical specification and fuel warranty limits during the month. Chloride concentration and pH of the reactor coolant remained within technical specification and fuel warranty limits during the month. This calendar year, the technical specification and fuel warranty limits for conductivity and chloride have not been exceeded.

Parameter	Unit 1	Unit 2	Unit 3
1. Gross Radioactivity			
a. Crud (filter) (µci/ml)			
High	N/A	N/A	N/A
Low	N/A	N/A	N/A
Average	N/A	N/A	N/A
b. Filtrate (µci/ml)			
High	N/A	N/A	N/A
Low	N/A	N/A	N/A
Average	N/A	N/A	N/A
2. Milipore Iron (Fe,ppb)			
High	N/A	N/A	N/A
Low	N/A	N/A	N/A
Average	N/A	N/A	N/A
3. Tritium (µci/ml)			
High	6.24E-05	6.48E-05	1.32E-04
Low	5.53E-05	5.35E-05	1.19E-04
Average	5.86E-05	6.14E-05	1.26E-04
4. Iodine-131 (µci/ml)			
High	<LLD	<LLD	<LLD
Low	<LLD	<LLD	<LLD
Average	<LLD	<LLD	<LLD
5. Iodine-131:Iodine-133 Ratio			
High	N/A	N/A	N/A
Low	N/A	N/A	N/A
Average	N/A	N/A	N/A

PRIMARY COOLANT CHEMISTRY (Continued)

FEBRUARY 1988

Parameter		Unit 1	Unit 2	Unit 3
6. Chloride (ppb)				
	High	<10	<10	<10
	Low	<10	<10	<10
	Average	<10	<10	<10
7. pH@25°C				
	High	6.4	6.2	6.2
	Low	5.8	5.8	5.6
	Average	6.1	6.0	5.4
8. Conductivity (μmho/cm@25°C)				
	High	0.17	0.95	0.40
	Low	0.10	0.58	0.080
	Average	0.14	0.78	0.22

CHEMISTRY SUMMARY (Continued)

FEBRUARY 1988

Environmental Technical Specification Requirements

The ambient upstream river temperatures (24-hr. avg max) averaged 45.4°F ranging from a high of 48.9°F on February 29 to 41.6°F on February 13. The downstream temperature varied from 48°F on February 29 to 41.7°F on February 14. The downstream temperature averaged 45.0 for the month. The greatest temperature change was 0.9° F on February 7.

The sedimentation pond (DSN 102) remained out of service for the entire month. Repairs were completed on February 10. The pond is to be refilled with the river water to determine if the repairs were successful.

Compliance problems continued to experienced from the Unit 1 and 2 control bay drain discharge (DSN 110). The total suspended solids (TSS) concentrations exceeded the NPDES permit limit of 100 mg/L in three of 30 samples taken.

The sewage lagoon operated in compliance for the month. The BOD concentrations ranged between 13 mg/L and 28 mg/L while TSS ranged between 13 and 42 mg/L. The discharge flow averaged 49,488 gallons per day (gpd) and varied between 31,248 gpd and 85,968 gpd.

AIRBORNE RELEASES(1)

FEBRUARY 1988

SUMMATION OF ALL RELEASES	UNIT	THIS MONTH
A. FISSION AND ACTIVATION GASES		
1. TOTAL RELEASE	CI	< 6.98E 01
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	< 2.89E 01
3. PERCENT OF TECH. SPEC. LIMIT(0.15 CI/SEC)	%	0.00E-01
B. IODINES		
1. TOTAL IODINE - 131	CI	< 1.56E-04
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	< 6.44E-05
3. PERCENT OF TECH. SPEC. LIMIT(2.19 UCI/SEC)	%	0.00E-01
C. PARTICULATES		
1. PARTICULATES WITH HALF-LIFES > OR = TO 8 DAYS	CI	< 7.86E-04
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	< 3.25E-04
3. PERCENT OF TECH. SPEC. LIMIT(2.19 UCI/SEC)	%	0.00E-01
4. GROSS ALPHA RADIOACTIVITY	CI	5.57E-07
D. TRITIUM		
1. TOTAL RELEASE	CI	5.47E-02
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	2.26E-02
3. PERCENT OF TECH. SPEC. LIMIT(2.19 UCI/SEC)	%	1.03E 00
4. GROUND LEVEL RELEASE	CI	5.45E-02
5. ELEVATED RELEASE	CI	2.46E-04

(1) REPORTING PERIOD 28 DAYS

AIRBORNE RELEASES (CONTINUED)

FEBRUARY 1988

ELEVATED RELEASES

		UNIT	THIS MONTH
A.	FISSION GASES		
	KR-85M	CI	< 7.55E-02
	KR-85	CI	< 3.55E 01
	KR-87	CI	< 2.50E-01
	KR-88	CI	< 3.78E-01
	XE-133	CI	< 1.50E-01
	XE-135M	CI	< 2.23E-01
	XE-135	CI	< 9.81E-02
	XE-138	CI	< 6.23E-01
	OTHERS(SPECIFY)		
	TOTAL FOR PERIOD	CI	< 3.73E 01
B.	IODINES		
	I-131	CI	< 3.54E-06
	I-133	CI	< 3.49E-05
	I-135	CI	< 1.52E-06
	TOTAL FOR PERIOD	CI	< 4.00E-05

AIRBORNE RELEASES (CONTINUED)

FEBRUARY 1988

ELEVATED RELEASES

		UNIT	THIS MONTH
C.	PARTICULATES		
	SR-89	CI	< 2.52E-07
	SR-90	CI	< 1.20E-07
	CS-134	CI	< 1.81E-06
	CS-137	CI	< 1.77E-06
	BA-140	CI	< 1.17E-05
	LA-140	CI	< 5.63E-11
	OTHERS(SPECIFY)		
	TOTAL FOR PERIOD	CI	< 1.56E-05
D.	TRITIUM	CI	2.46E-04

AIRBORNE RELEASES (CONTINUED)

FEBRUARY 1988

GROUND RELEASES

		UNIT	THIS MONTH
A.	FISSION GASES		
	KR-85M	CI	< 8.41E-02
	KR-85	CI	< 3.09E 01
	KR-87	CI	< 2.21E-01
	KR-88	CI	< 3.07E-01
	XE-133	CI	< 2.14E-01
	XE-135M	CI	< 1.18E-01
	XE-135	CI	< 9.11E-02
	XE-138	CI	< 5.36E-01
	OTHERS(SPECIFY)		
	TOTAL FOR PERIOD	CI	< 3.25E 01
B.	IODINES		
	I-131	CI	< 1.52E-04
	I-133	CI	< 3.22E-04
	I-135	CI	< 3.10E-01
	TOTAL FOR PERIOD	CI	< 3.11E-01

AIRBORNE RELEASES (CONTINUED)

FEBRUARY 1988

GROUND RELEASES

		UNIT	THIS MONTH
C.	PARTICULATES		
	SR-89	CI	< 1.77E-06
	SR-90	CI	< 1.23E-06
	CS-134	CI	< 7.40E-05
	CS-137	CI	< 1.62E-04
	BA-140	CI	< 5.05E-04
	LA-140	CI	< 2.59E-05
	OTHERS(SPECIFY)		
	TOTAL FOR PERIOD	CI	< 7.70E-04
D.	TRITIUM	CI	5.45E-02

BROWNS FERRY NUCLEAR PLANT
MONTHLY REPORT CALCULATIONS
LIQUID RELEASES
FEBRUARY, 1988

RADIOACTIVE LIQUID EFFLUENTS

		UNITS	
1.	GROSS RADIOACTIVITY		
	a) TOTAL RELEASE	CURIES	1.16E-02
	b) AVERAGE DILUTED CONCENTRATION RELEASED	UCI/ML	9.98E-10
	c) PERCENT OF APPLICABLE LIMIT (1E-07 UCI/ML)	%	9.98E-01
2.	TRITIUM		
	a) TOTAL RELEASE	CURIES	8.43E-02
	b) AVERAGE DILUTED CONCENTRATION RELEASED	UCI/ML	7.24E-09
	c) PERCENT OF APPLICABLE LIMIT (3E-03 UCI/ML)	%	2.41E-04
3.	DISSOLVED NOBLE GASES (1)		
	a) TOTAL RELEASE	CURIES	1.60E-03
	b) AVERAGE DILUTED CONCENTRATION RELEASED	UCI/ML	1.37E-10
	c) PERCENT OF APPLICABLE LIMIT (2E-04 UCI/ML)	%	6.85E-05
4.	GROSS ALPHA RADIOACTIVITY		
	a) TOTAL RELEASE	CURIES	2.23E-04
	b) AVERAGE DILUTED CONCENTRATION RELEASED	UCI/ML	1.91E-11
5.	VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	2.81E 06
6.	VOLUME OF DILUTION WATER	LITERS	1.16E 10

(1) INCLUDES XE-133, Xe-135, AND OTHERS

BROWNS FERRY NUCLEAR PLANT
MONTHLY REPORT CALCULATIONS
LIQUID RELEASES
FEBRUARY, 1988

ISOTOPES RELEASED	UNITS CI
CR-51	< 1.29E-03
MN-54	2.54E-06
CO-58	< 1.29E-04
FE-59	< 2.41E-04
CO-60	9.80E-04
ZN-65	4.74E-04
NB-95	< 1.14E-04
ZR-95	< 2.25E-04
MOTC-99M	< 1.15E-04
I-131	< 1.70E-04
XE-133	< 2.90E-04
CS-134	1.84E-03
XE-135	< 9.51E-05
CS-137	6.68E-03
BA-140	< 6.45E-04
LA-140	< 7.37E-05
CE-141	< 1.91E-04
SR-89	< 1.26E-04
SR-90	< 6.49E-05

BROWNS FERRY NUCLEAR PLANT
MONTHLY REPORT CALCULATIONS
LIQUID RELEASES
FEBRUARY, 1988

OTHERS	UNITS
	CI
KR-85	1.60E-03

BROWNS FERRY NUCLEAR PLANT
MONTHLY REPORT CALCULATIONS
LIQUID RELEASES
FEBRUARY, 1988

LAUNDRY DRAIN VOLUME RELEASED:	9681.5	GALLONS
FLOOR DRAIN VOLUME RELEASED:	732949.5	GALLONS
WASTE SAMPLE TANK VOLUME RELEASED:	0.0	GALLONS
DISTILLATE TANK VOLUME RELEASED:	0.0	GALLONS
LOCATION OTHER THAN RADWASTE VOLUME RELEASED:	0.0	GALLONS
TOTAL VOLUME RELEASED TO THE RIVER:	742630.9	GALLONS
HIGHEST BATCH ACTIVITY RELEASED FOR MONTH:	1.26E-08	UCI/ML A/D
LONGEST RELEASE TIME FOR MONTH:	295	MINUTES
SHORTEST RELEASE TIME FOR MONTH:	187	MINUTES
TOTAL TIME OF RELEASES FOR MONTH:	7148	MINUTES
AVERAGE TIME FOR BATCH RELEASES:	265	MINUTES

COMPOSITE INFORMATION:

	COMPOSITE UCI/ML	CI RELEASED	AFTER DILUTION UCI/ML
SR-89	< 4.48E-08	< 1.26E-04	< 1.08E-11
SR-90	< 2.31E-08	< 6.49E-05	< 5.57E-12
H-3	3.00E-05	8.43E-02	7.24E-09
GROSS ALPHA	7.93E-08	2.23E-04	1.91E-11

NUMBER OF BATCHES RELEASED:	27
NUMBER OF ADMINISTRATIVE LIMIT VIOLATIONS:	0
NUMBER OF TECHNICAL SPECIFICATION VIOLATIONS:	0

RESIN USAGE REPORT
FEBRUARY 1988
RESIN CONSUMED (CU.FT.)

	% of Total	Bead	POWDEX	ECODEX	ECOSORB	EPIFLOC	Total
Radwaste							
Floor Drain Filter	51.0	0	112	0	0	53	165
Waste Demineralizer	0	0	0	0	0	0	0
Waste Filter	36.5	0	103	0	15	0	118
Fuel Pool Demins	0	0	0	0	0	0	0
Reactor Water Cleanup							
Unit 1	0.6	0	2	0	0	0	2
Unit 2	1.8	0	6	0	0	0	6
Unit 3	0.6	0	2	0	0	0	2
Cond. Demins							
Unit 1	0	0	0	0	0	0	0
Unit 2	9.5	0	30	0	0	0	30
Unit 3	0	0	0	0	0	0	0
Totals	100	0	255	0	15	53	323

FUEL CLADDING INTEGRITY PARAMETERS
FEBRUARY 1988

Unit 1

Reactor Water Iodines (uci/sec.)

Date	I-131	I-132	I-133	I-134	I-135
			Unit in Outage		

Fission Gases at Discharge of SJAE (uci/sec)

Date	Flow	MWt	Xe-138	Kr-87	Kr-88	Kr-85m	Xe-135	Xe-133
				Unit in Outage				

Unit 2

Reactor Water Iodines (uci/sec.)

Date	I-131	I-132	I-133	I-134	I-135
			Unit in Outage		

Fission Gases at Discharge of SJAE (uci/sec)

Date	Flow	MWt	Xe-138	Kr-87	Kr-88	Kr-85m	Xe-135	Xe-133
				Unit in Outage				

Unit 3

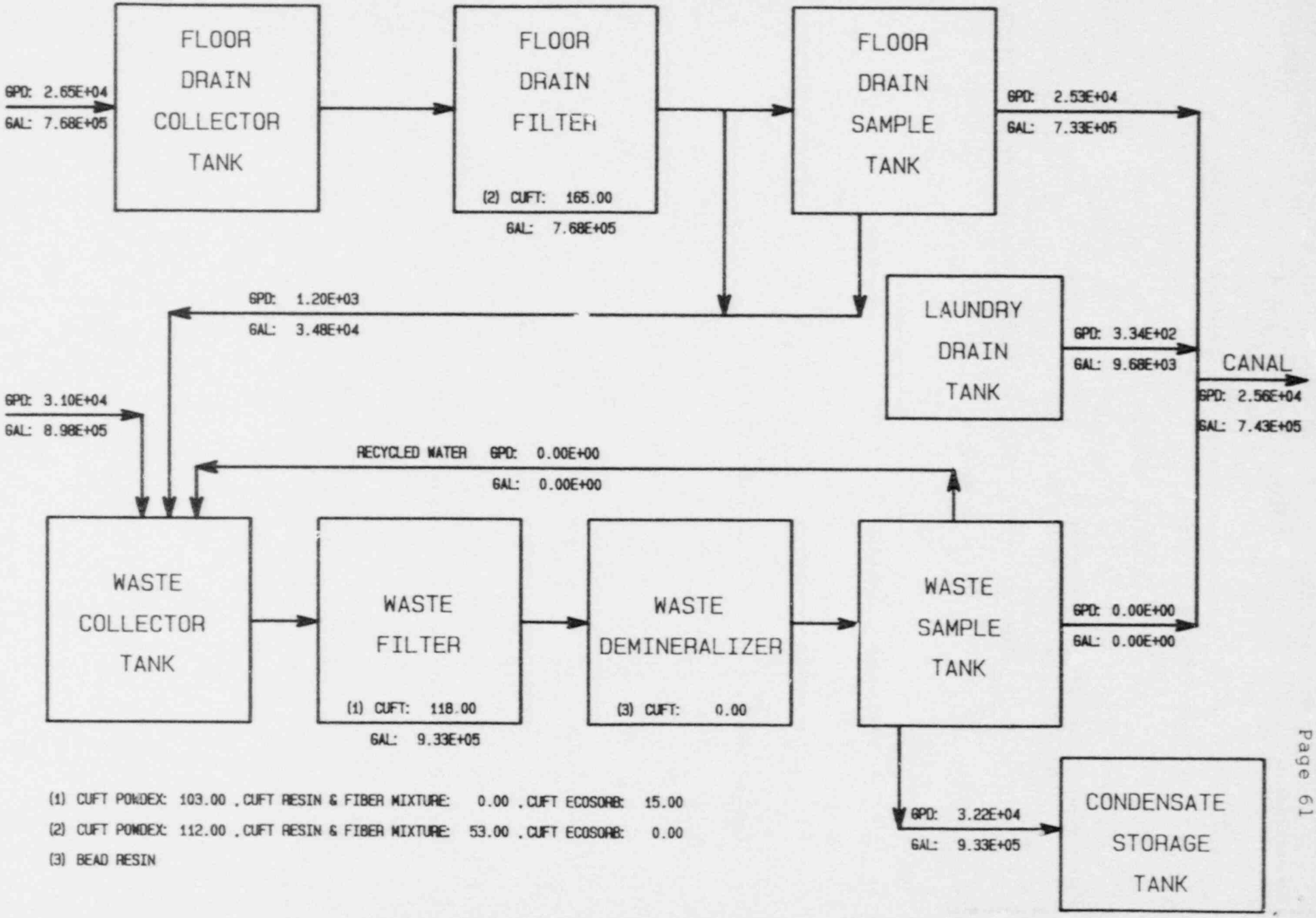
Reactor Water Iodines (uci/sec.)

Date	I-131	I-132	I-133	I-134	I-135
			Unit in Outage		

Fission Gases at Discharge of SJAE (uci/sec)

Date	Flow	MWt	Xe-138	Kr-87	Kr-88	Kr-85m	Xe-135	Xe-133
				Unit in Outage				

WASTE TREATMENT SYSTEM THROUGHPUTS
FEBRUARY 1988



(1) CUFT POWDEX: 103.00 , CUFT RESIN & FIBER MIXTURE: 0.00 , CUFT ECOSORB: 15.00

(2) CUFT POWDEX: 112.00 , CUFT RESIN & FIBER MIXTURE: 53.00 , CUFT ECOSORB: 0.00

(3) BEAD RESIN

TESTING SUMMARY

FEBRUARY 1988

Surveillance Testing

Unit 0

A total of 54 surveillance tests were completed per 31 different test instructions.

Unit 1

A total of 138 surveillance tests were completed on unit 1 per 36 different test instructions.

Unit 2

A total of 168 surveillance tests were completed on unit 2 per 24 different test instructions.

Unit 3

A total of 72 surveillance tests were completed on unit 3 per 22 different test instructions.

TESTING SUMMARY (Continued)

FEBRUARY 1988

Changes, Test, and Experiments Requiring Authorization

From the NRC Pursuant to 10 CFR 50.59(a)

There were no revisions for unit 1, 2, and 3 technical specifications.

Changes, Tests, and Experiments not Requiring

Authorization from NRC Pursuant to 10 CFR 50.59(a)

There were no special tests completed for this month.

REACTOR VESSEL FATIGUE USAGE EVALUATION

FEBRUARY 1988

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

	Usage Factor		
Location	Unit 1	Unit 2	Unit 3
Shell at water line	0.00620	0.00492	0.00431
Feedwater nozzle	0.29782	0.21319	0.16139
Closure studs	0.24204	0.17629	0.14360

CHANGE IN PROCEDURE

FEBRUARY 1988

There were 385 revisions to plant instructions during the month; 383 instructions were changed primarily for correction, and the remaining 2 revisions related to safe operation of the plant.

PLANT INSTRUCTION REVISIONS

FEBRUARY 1988

Category	Instruction	Reason for Request
Change in Response to LER, IE Bulletin, NRC Inspection Report, OPQA Audit, etc.	SDSP 13.1 Restart Test Program	To incorporate temporary change 07, additional corrective actions per BFQ-87-0534, program improvements and correct typographical errors, program changes implementing admendment 134 for Unit 2 Tech. Spec. and to update reference list.
	SDSP 12.2 Development of System Test Specifications	To incorporate additional corrective actions per BFQ-87-0534, program improvements and to update references.

Package Number	Description
	Safety Related
ECN P0943 - Assoc. Electrical Equipment - Unit 1	(WP&IR 1002-87) Installed/modified supports for conduits in Class I structures for interim operation of unit 2. This covered the unit 1 reactor building elevations 565' - 593'. The ECN was totally completed as it only covered unit 1. *The modifications did not change or affect any safety related system already existing in the plant. Implementation of the ECN provided assurance that the affected conduit systems meet the design requirements. Based on this, the margin of safety was not reduced.
ECN P0941 - Assoc. Electrical Equipment - Unit 3	(WP&IR 3008-87) - Documented inspections, evaluations, analysis, calculations, and drawings for the seismic qualification of conduit. The conduits covered by this ECN are those located in the unit 3 control bay, except the spreading room, installed in class I structures prior to May 1984. The ECN was totally completed as it only covered these conduits for unit 3. *The modifications did not change or affect any safety related system already existing in the plant. Implementation of the ECN provided assurance that the affected conduit systems meet the design requirements. Based on this, the margin of safety was not reduced.
ECN P0939 - Assoc. Electrical Equipment - Common	(WP&IR 0003-87) - Modified conduit supports for seismic qualification. This ECN covered the class IE conduits at the intake pumping station and tunnel. The ECN was totally completed. The modifications ensure that the safety related conduits are seismically supported. The modifications did not affect any system's operation and provided added assurance that the affected systems will operate as required. Based on this, the margin of safety was not reduced.

CHANGE IN FACILITY DESIGN (Continued)

FEBRUARY 1988

Package Number	Description
	Safety Related
ECN P0901 - CAD System - Unit 2	(WP&IR 2128-86) - Installed CAD System piping supports in the reactor building, elevation 565'.
	(WP&IR 2129-86) - Piping installation of CAD system to drywell control air crosstie. The ECN was totally completed as it only covered unit 2.
	A seismic analysis was performed by DNE. All systems affected by the change continue to function as described in the Tech. Specs. Based on this, the margin of safety was not reduced.
ECN P3205 - Containment Inerting System - Unit 2	(WP&IR 2164-87) - Removed conduit and cable associated with flow solenoid valves, FSV 76-51, -52, -53, -54, -61, -62, -63, and 64. A very small portion of the work covered by the ECN was completed.
ECN P5189 - Fuel Pool Cooling - Units 1, 2, 3	(WP 0005-85) - As-constructed drawings to show valves 78-505 and 78-510 normally open. The ECN was completed for all 3 units.
	No physical work was involved. The drawings were revised to reflect original and proper fuel pool cooling system configuration. The function of the system was not changed, therefore, the margin of safety was not reduced.
ECN P0872 - Primary Containment - Unit 2	(WP&IR 2032-87) - Installed HVAC duct, dampers, and supports for the reactor building ventilation system.
	(WP&IR 2031-87) - Installed HVAC duct, dampers, and supports for the reactor building ventilation system, elevation 593'.

FEBRUARY 1988

Package Number	Description
	Safety Related
ECN P0872 (Continued)	(WP&IR 2033-87) - Installed HVAC duct, dampers, and supports for reactor zone exhaust system, unit 2 reactor building, elevation 639'0'.
	(WP&IR 2056-87, WP&IR 2064-87) - Installed HVAC duct, dampers, and supports, unit 2 reactor building, elevation 621.25.
	(WP&IR 2035-87) - Installed HVAC duct, dampers, and supports in unit 2 reactor building, elevation 621 and 639.
	(WP&IR 2156-86) - Fabricated and installed control Bay HVAC duct and supports.
	(WP&IR 2057-87) - Installed HVAC duct, dampers, and supports for reactor building ventilation system. This work was in the unit 2 reactor building, elevation 639.
	(WP&IR 2059-87) - Installed HVAC duct, dampers, and supports for reactor building ventilation system, elevation 621.
	The ECN was only partially implemented. Many workplans remaining to be closed.

CHANGES IN PLANT ORGANIZATION

FEBRUARY 1988

There was one change in plant staff for those positions designated as key supervisory positions, Raymond R. Weedon, Manager Group, Plant Manager.

ACCIDENTS

FEBRUARY 1988

There was one loss-of-time accident during the month.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-259
UNIT NAME One
DATE 02/01/88
COMPLETED BY J. D. Crawford
TELEPHONE (205) 729-2507

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
315	01/01/88	F	696	*F	4				Administrative hold to resolve various TVA and NRC concerns.

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)

*Revision for January