



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

JANUARY 14, 1997

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of)	Docket Nos. 50-259
Tennessee Valley Authority)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - MONTHLY OPERATING REPORT
FOR THE MONTH OF DECEMBER 1996**

In accordance with the requirements of BFN Units 1, 2, and 3 Technical Specifications, Section 6.9.1.3, TVA is submitting the Monthly Operating Report for the month of December 1996 in the enclosure.

If you have any questions, please call me at (205) 729-2636.

Sincerely,

T. E. Abney
Manager of Licensing
and Industry Affairs

Enclosure

cc: See page 2

9701220273 961231
PDR ADOCK 05000259
R PDR

1/14/97

U.S. Nuclear Regulatory Commission

Page 2

JANUARY 14, 1997

Enclosure

cc (Enclosure):

Mr. Mark S. Lesser, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects I-II
Office of Nuclear Reactor
Regulation, Mail 13 H3
Washington, D.C. 20555

INPO Records Center
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, Georgia 30339-5957

Mr. Jim Lang
Director of Engineering and Operations
Electric Power Research Institute
P. O. Box 10412
Palo Alto, California 94304

NRC Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Ms. Elizabeth Hannon
Utility Data Institute
1200 G Street, NW
Washington, D.C. 20005-3802

ENCLOSURE

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3

MONTHLY OPERATING REPORT
DECEMBER 1996

(SEE ATTACHED)

OPERATIONAL SUMMARY
DECEMBER 1996

BROWNS FERRY 1

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

BROWNS FERRY 2

For the month of December, Unit 2 generated 814,840 megawatt hours gross electrical power and operated at a net capacity factor of 100.5 percent. As of December 31, 1996, Unit 2 has operated continuously for 59 days.

BROWNS FERRY 3

For the month of December, Unit 3 generated 793,150 megawatt hours gross electrical power and operated at a net capacity factor of 97.7 percent. As of December 31, 1996, Unit 3 has operated continuously for 106 days. It should be noted, that Unit 3 has begun its "coast down" for the cycle 7 refueling outage scheduled to begin on February 21, 1997.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-259

UNIT: BROWNS FERRY 1

PREPARED BY: J. W. Davenport

TELEPHONE: (205) 729-2690

MONTH DECEMBER 1996

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>0</u>
17	<u>0</u>
18	<u>0</u>
19	<u>0</u>
20	<u>0</u>
21	<u>0</u>
22	<u>0</u>
23	<u>0</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-260
UNIT: BROWNS FERRY 2
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

MONTH DECEMBER 1996

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1081</u>
2	<u>1084</u>
3	<u>1081</u>
4	<u>1082</u>
5	<u>1083</u>
6	<u>1081</u>
7	<u>1083</u>
8	<u>1078</u>
9	<u>1085</u>
10	<u>1087</u>
11	<u>1080</u>
12	<u>1085</u>
13	<u>1083</u>
14	<u>1082</u>
15	<u>1082</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1080</u>
17	<u>1080</u>
18	<u>1084</u>
19	<u>1084</u>
20	<u>1082</u>
21	<u>1082</u>
22	<u>1081</u>
23	<u>1084</u>
24	<u>1082</u>
25	<u>1086</u>
26	<u>805</u>
27	<u>95°</u>
28	<u>1092</u>
29	<u>1088</u>
30	<u>1080</u>
31	<u>1088</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-296
UNIT: BROWNS FERRY 3
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

MONTH DECEMBER 1996

DAY AVERAGE DAILY PCWER LEVEL
(MWe-Net)

1	<u>842</u>
2	<u>1056</u>
3	<u>1099</u>
4	<u>1067</u>
5	<u>1088</u>
6	<u>1087</u>
7	<u>1042</u>
8	<u>1021</u>
9	<u>1017</u>
10	<u>1071</u>
11	<u>1067</u>
12	<u>1074</u>
13	<u>1076</u>
14	<u>1063</u>
15	<u>1063</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1067</u>
17	<u>1066</u>
18	<u>1061</u>
19	<u>1061</u>
20	<u>1056</u>
21	<u>1050</u>
22	<u>1044</u>
23	<u>1043</u>
24	<u>1037</u>
25	<u>1035</u>
26	<u>1029</u>
27	<u>933</u>
28	<u>1037</u>
29	<u>1047</u>
30	<u>957</u>
31	<u>1014</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: DECEMBER 1996

DOCKET NO: 50-259
UNIT: BROWNS FERRY 1
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

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

¹F-Forced
S-Scheduled

²A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

⁴Instructions for Preparation of Licensee
Event Reports (NUREG-1022)

UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: DECEMBER 1996

DOCKET NO: 50-260
UNIT: BROWNS FERRY 2
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	License Event Report No.	System Code ⁴	Component Code ⁴	Cause and Corrective Action to Prevent Recurrence
5	12/26/96	S	17	B	5	N/A	N/A	N/A	Power reduced to 70 percent for scheduled maintenance.

¹F-Forced
S-Scheduled

²A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

⁴Instructions for Preparation of Licensee
Event Reports (NUREG-1022)

UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: DECEMBER 1996

DOCKET NO: 50-296
UNIT: BROWNS FERRY 3
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	License Event Report No.	System Code ⁴	Component Code ⁴	Cause and Corrective Action to Prevent Recurrence
10	12/01/96	S	18	B	5	N/A	N/A	N/A	Power reduction for final feedwater reduction. Note: Unit 3 is in "coastdown" for the Cycle 7 Refueling Outage scheduled to begin on 02/21/97.

¹F-Forced
S-Scheduled

²A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

⁴Instructions for Preparation of Licensee
Event Reports (NUREG-1022)

OPERATING DATA REPORT

DOCKET: 50-259
 UNIT: BROWNS FERRY 1
 PREPARED BY: J. W. Davenport
 TELEPHONE: (205) 729-2690

OPERATING STATUS

1. Unit Name: **BROWNS FERRY UNIT 1**
2. Reporting Period: **DECEMBER 1996**
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): **0**
7. Maximum Dependable Capacity (Net MWe): **0**
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reason: **N/A**
9. Power Level To Which Restricted, If Any (Net MWe): **0**
10. Reason For Restrictions, If Any: **Administrative Hold**

THIS MONTH YEAR TO DATE CUMULATIVE*

11. Hours in Reporting Period	0	0	95743
12. Hours Reactor Was Critical	0	0	59521
13. Reactor Reserve Shutdown Hours	0	0	6997
14. Hours Generator On Line	0	0	58267
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Generation (MWh)	0	0	168066787
17. Gross Electrical Generation (MWh)	0	0	55398130
18. Net Electrical Generation (MWh)	0	0	53796427
19. Unit Service Factor	0	0	60.9
20. Unit Availability Factor	0	0	60.9
21. Unit Capacity Factor (MDC Net)	0	0	52.8
22. Unit Capacity Factor (DER net)	0	0	52.8
23. Unit Forced Outage Rate	0	0	25.6

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

25. If Shut Down At End Of Reporting Period,
 Estimated Date of Startup: **To Be Determined**

* Excludes hours under administrative hold
 (June 1, 1985 to present)

OPERATING DATA REPORT

DOCKET: 50-260
UNIT: BROWNS FERRY 2
PREPARED BY: J. W. Davenport
TELEPHONE: (205) 729-2690

OPERATING STATUS

1. Unit Name: **BROWNS FERRY UNIT 2**
2. Reporting Period: **DECEMBER 1996**
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 Reason: **N/A**
9. Power Level To Which Restricted, If Any (Net MWe): **N/A**
10. Reason For Restrictions, If Any: **N/A**

THIS MONTH YEAR TO DATE CUMULATIVE*

11. Hours in Reporting Period	744.0	8784.0	139615
12. Hours Reactor Was Critical	744.0	7870.0	98649
13. Reactor Reserve Shutdown Hours	0.0	0.0	14200
14. Hours Generator On Line	744.0	7795.0	96283
15. Unit Reserve Shutdown Hours	0.0	0.0	0
16. Gross Thermal Generation (MWh)	2415192.0	24846768	284187100
17. Gross Electrical Generation (MWh)	814840.0	8256050	94421368
18. Net Electrical Generation (MWh)	796236.0	8046294	91833165
19. Unit Service Factor	100.0	88.7	69.0
20. Unit Availability Factor	100.0	88.7	69.0
21. Unit Capacity Factor (MDC Net)	100.5	86.0	61.8
22. Unit Capacity Factor (DER net)	100.5	86.0	61.8
23. Unit Forced Outage Rate	0.0	2.8	15.0

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

25. If Shut Down At End Of Reporting Period, Estimated Date of Startup: **N/A**

* Excludes hours under administrative hold (June 1, 1985 to May 24, 1991)

OPERATING DATA REPORT

DOCKET: 50-296
 UNIT: BROWNS FERRY 3
 PREPARED BY: J. W. Davenport
 TELEPHONE: (205) 729-2690

OPERATING STATUS

1. Unit Name: **BROWNS FERRY UNIT 3**
2. Reporting Period: **DECEMBER 1996**
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 Reason: **N/A**
9. Power Level To Which Restricted, If Any (Net MWe): **N/A**
10. Reason For Restrictions, If Any: **N/A**

THIS MONTH YEAR TO DATE CUMULATIVE*

11. Hours in Reporting Period	744.0	8784.0	82837
12. Hours Reactor Was Critical	744.0	8459.2	54754
13. Reactor Reserve Shutdown Hours	0.0	0.0	5150
14. Hours Generator On Line	744.0	8414.1	53419
15. Unit Reserve Shutdown Hours	0.0	0.0	0
16. Gross Thermal Generation (Mwh)	2384856.0	26960376	161230657
17. Gross Electrical Generation (MWh)	793150.0	9025810	54024140
18. Net Electrical Generation (MWh)	774468.0	8803504	51682131
19. Unit Service Factor	100.0	95.8	64.5
20. Unit Availability Factor	100.0	95.8	64.5
21. Unit Capacity Factor (MDC Net)	97.7	94.1	58.6
22. Unit Capacity Factor (DER net)	97.7	94.1	58.6
23. Unit Forced Outage Rate	0.0	2.7	18.8

24. Shutdowns Scheduled Over Next 6 Months
 (Type, Date, and Duration of Each): **Refueling Outage (U3C7), 2/21/97,
 19.4 Days**

25. If Shut Down At End Of Reporting Period,
 Estimated Date of Startup: **N/A**

* Excludes hours under administrative hold
 (June 1, 1985 to November 19, 1995)