



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

December 11, 1996

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

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

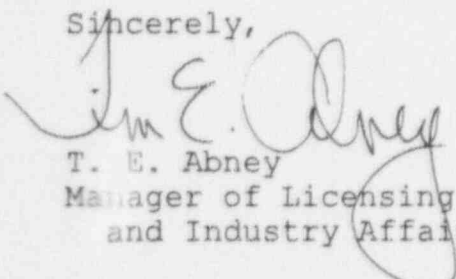
Docket Nos. 50-259
50-260
50-296

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

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U.S. Nuclear Regulatory Commission
Page 2
December 11, 1996

Enclosure

cc (Enclosure):

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ENCLOSURE

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

MONTHLY OPERATING REPORT
NOVEMBER 1996

(SEE ATTACHED)

OPERATIONAL SUMMARY
NOVEMBER 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 November, Unit 2 generated 702,540 megawatt hours gross electrical power and operated at a net capacity factor of 89.4 percent. On October 29, 1996, at approximately 1538 hours, a full reactor scram on control valve fast closure occurred. The unit remained shutdown for maintenance until November 3, 1996. As of November 30, 1996, Unit 2 has operated continuously for 28 days.

BROWNS FERRY 3

For the month of November, Unit 3 generated 791,270 megawatt hours gross electrical power and operated at a net capacity factor of 100.6 percent. As of November 30, 1996, Unit 3 has operated continuously for 75 days.

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH NOVEMBER 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>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-260

UNIT: BROWNS FERRY 2

PREPARED BY: J. W. Davenport

TELEPHONE: (205) 729-2690

MONTH NOVEMBER 1996

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>0</u>
2	<u>0</u>
3	<u>85</u>
4	<u>796</u>
5	<u>1035</u>
6	<u>1025</u>
7	<u>996</u>
8	<u>1060</u>
9	<u>1058</u>
10	<u>1098</u>
11	<u>1086</u>
12	<u>1089</u>
13	<u>1089</u>
14	<u>1089</u>
15	<u>1089</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1089</u>
17	<u>1078</u>
18	<u>1088</u>
19	<u>1090</u>
20	<u>1086</u>
21	<u>1088</u>
22	<u>1093</u>
23	<u>897</u>
24	<u>947</u>
25	<u>1094</u>
26	<u>1094</u>
27	<u>1091</u>
28	<u>1075</u>
29	<u>1088</u>
30	<u>1085</u>

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH NOVEMBER 1996

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1133</u>
2	<u>1089</u>
3	<u>1082</u>
4	<u>1091</u>
5	<u>1091</u>
6	<u>1083</u>
7	<u>1092</u>
8	<u>1072</u>
9	<u>1081</u>
10	<u>1060</u>
11	<u>1091</u>
12	<u>1093</u>
13	<u>1094</u>
14	<u>1093</u>
15	<u>1091</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1092</u>
17	<u>1074</u>
18	<u>1048</u>
19	<u>1094</u>
20	<u>1089</u>
21	<u>1090</u>
22	<u>1090</u>
23	<u>1084</u>
24	<u>1070</u>
25	<u>1090</u>
26	<u>1066</u>
27	<u>1074</u>
28	<u>1058</u>
29	<u>1042</u>
30	<u>757</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS
REPORT MONTH: NOVEMBER 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	720	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: NOVEMBER 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
4	11/01/96	F	65	A	4	260/96007	TL	EXC	On 10/29/96, at approximately 1538 hours, a full reactor scram on control valve fast closure occurred. On 11/01/96 the unit remained shutdown for maintenance. The unit restarted on 11/03/96 with breaker closure at 1718 hours.

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: NOVEMBER 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
9	11/29/96	S	26.1	B	5	N/A	N/A	N/A	Power reduction for Control Rod Drive exercise and 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)

Method:
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: **NOVEMBER 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: **NOVEMBER 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	720.0	8040.0	138871
12. Hours Reactor Was Critical	666.0	7126.0	97905
13. Reactor Reserve Shutdown Hours	0.0	0.0	14200
14. Hours Generator On Line	655.0	7051.0	95539
15. Unit Reserve Shutdown Hours	0.0	0.0	0
16. Gross Thermal Generation (MWh)	2090784.0	22431576	281771908
17. Gross Electrical Generation (MWh)	702540.0	7441210	93606528
18. Net Electrical Generation (MWh)	685440.0	7250058	91036929
19. Unit Service Factor	90.9	87.7	68.8
20. Unit Availability Factor	90.9	87.7	68.8
21. Unit Capacity Factor (MDC Net)	89.4	84.7	61.6
22. Unit Capacity Factor (DER net)	89.4	84.7	61.6
23. Unit Forced Outage Rate	9.1	3.0	15.1

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: **NOVEMBER 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	720.0	8040.0	82093
12. Hours Reactor Was Critical	720.0	7715.2	54010
13. Reactor Reserve Shutdown Hours	0.0	0	5150
14. Hours Generator On Line	720.0	7670.1	52675
15. Unit Reserve Shutdown Hours	0.0	0	0
16. Gross Thermal Generation (Mwh)	2332680.0	24575520	158845801
17. Gross Electrical Generation (MWh)	791270.0	8232660	53230990
18. Net Electrical Generation (MWh)	771647.0	8029036	50907663
19. Unit Service Factor	100.0	95.4	64.2
20. Unit Availability Factor	100.0	95.4	64.2
21. Unit Capacity Factor (MDC Net)	100.6	93.8	58.2
22. Unit Capacity Factor (DER net)	100.6	93.8	58.2
23. Unit Forced Outage Rate	0.0	2.9	19.0

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)