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Letter trans the following:

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## PLANT NAME:

Browns Ferry 1-2-3  
RJL**ACKNOWLEDGED**

## ENCLOSURE

Monthly Report for MARCH, 1977  
Plant & Component Operability & Availability.  
This Report to be used in preparing Gray Book  
by Plans & Operations.

(9-P)

## FOR ACTION/INFORMATION

MIPC W/2 CYS FOR ACTION

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EXHIBIT

EXHIBIT

Browns Ferry Nuclear Plant  
P. O. Box 2000  
Decatur, Alabama 35602

April 11, 1977

**REGULATORY DOCKET FILE COPY**

Nuclear Regulatory Commission  
Office of Management Information  
and Program Control  
Washington, D. C. 20555



Gentlemen:

Enclosed is the March 1977 report on plant and component operability and availability for Browns Ferry Nuclear Plant units 1, 2, and 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. J. Green  
Plant Superintendent

Enclosures:

CC: Director, Region II  
Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
230 Peachtree Street, NW  
Suite 818  
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Director, Office of Inspection & Enforcement  
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UNIT NAME Brown Perry 1DATE 4/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846**OPERATING STATUS:**

1. Reporting Period: 0000770301 to 2400770331  
Gross Hours in Reporting Period: 744
2. Currently Authorized Power Level MWT 3293 MWe-net 1065  
Max. Depend. capacity (MWe-net) 1065
3. Power Level to which restricted (if any): NA
4. Reasons for restrictions (if any):
- |  | <u>This<br/>Month</u> | <u>Yr-To-Date</u> | <u>Cumulative<br/>To Date</u> |
|--|-----------------------|-------------------|-------------------------------|
| 5. Hours Reactor Was Critical  | <u>720.68</u>         | <u>1,971.86</u>   | <u>9,066.37</u>               |
| 6. Reactor Reserve Shutdown Hours  | <u>23.32</u>          | <u>188.14</u>     | <u>3,979.48</u>               |
| 7. Hours Generator On-Line   | <u>715.50</u>         | <u>1,926.91</u>   | <u>8,752.70</u>               |
| 8. Unit Reserve Shutdown Hours   | <u>0</u>              | <u>0</u>          | <u>0</u>                      |
| 9. Gross Thermal Power Generated (MWH)   | <u>1,960,176</u>      | <u>5,065,080</u>  | <u>21,844,990</u>             |
| 10. Gross Electrical Power Generated (MWH)   | <u>663,520</u>        | <u>1,703,380</u>  | <u>7,311,330</u>              |
| 11. Net Electrical Power Generated (MWH)   | <u>645,636</u>        | <u>1,658,681</u>  | <u>7,103,766</u>              |
| 12. Reactor Service Factor   | <u>96.9</u>           | <u>91.3</u>       | <u>38.8</u>                   |
| 13. Reactor Available Factor   | <u>100</u>            | <u>100</u>        | <u>55.8</u>                   |
| 14. Unit Service Factor  | <u>96.2</u>           | <u>89.2</u>       | <u>37.4</u>                   |
| 15. Unit Availability Factor   | <u>96.2</u>           | <u>89.2</u>       | <u>37.4</u>                   |
| 16. Unit Capacity Factor (using MDC)   | <u>81.5</u>           | <u>72.1</u>       | <u>28.5</u>                   |
| 17. Unit Capacity Factor (using Design MWe)  | <u>81.5</u>           | <u>72.1</u>       | <u>28.5</u>                   |
| 18. Forced Outage Rate   | <u>3.8</u>            | <u>10.8</u>       | <u>59.3</u>                   |
| 19. Shutdowns scheduled to begin in next 6 months (state type, date and duration of each): |                       |                   |                               |
| 20. If shutdown at end of report period, estimated date of startup:                        |                       |                   |                               |
| 21. Plants in Test Status (prior to commercial operation) Report the Following:            |                       |                   |                               |

Initial Criticality

Initial Electrical  
Power Generation

Commercial Operation

ForecastAchieved

## SUMMARY:

Unit operated at an average  
load of 927 MWe.

UNIT NAME Browns Ferry 1DATE 4/7/77COMPLETED BY Harold WallsREPORT MONTH March

## PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
8	770325	F	28.50	A	C	Steam line MSIV closed

(1) REASON:  
A-EQUIPMENT FAILURE (EXPLAIN)  
B-MAINT, OR TEST  
C-REFUELING  
D-REGULATORY RESTRICTION  
E-OPERATOR TRAINING AND  
LICENSING EXAMINATION  
F-ADMINISTRATIVE  
G-OPERATIONAL ERROR  
(EXPLAIN)

(2) METHOD:  
A-MANUAL  
B-MANUAL  
SCRAM  
C-AUTOMATIC  
SCRAM

UNIT Browns Ferry 1DATE 4/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH March

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>934</u>	25	<u>123</u>
2	<u>957</u>	26	<u>241</u>
3	<u>1009</u>	27	<u>670</u>
4	<u>1085</u>	28	<u>888</u>
5	<u>1055</u>	29	<u>973</u>
6	<u>1036</u>	30	<u>1034</u>
7	<u>1037</u>	31	<u>1030</u>
8	<u>1040</u>		
9	<u>1043</u>		
10	<u>1003</u>		
11	<u>983</u>		
12	<u>982</u>		
13	<u>970</u>		
14	<u>950</u>		
15	<u>829</u>		
16	<u>369</u>		
17	<u>453</u>		
18	<u>587</u>		
19	<u>690</u>		
20	<u>813</u>		
21	<u>925</u>		
22	<u>994</u>		
23	<u>1039</u>		
24	<u>1027</u>		

Note: Negative values indicate station  
use when unit is off line.

UNIT NAME Brown Ferry 2  
DATE 4/7/77  
COMPLETED BY: Harold Walls  
TELEPHONE 729-6846

OPERATING STATUS:

1. Reporting Period: 0000770301 to 2400770331

Gross Hours in Reporting Period: 744

2. Currently Authorized Power Level MWe 3293 MWe-net 1065

Max. Depend. capacity (MWe-net) 1065

3. Power Level to which restricted (if any): NA

4. Reasons for restrictions (if any):

	<u>This Month</u>	<u>Yr-To-Date</u>	<u>Cumulative To Date</u>
5. Hours Reactor Was Critical	<u>681.53</u>	<u>2,089.81</u>	<u>5,443.63</u>
6. Reactor Reserve Shutdown Hours	<u>62.47</u>	<u>70.19</u>	<u>10,444.37</u>
7. Hours Generator On-Line	<u>668.32</u>	<u>2,045.27</u>	<u>5,111.00</u>
8. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
9. Gross Thermal Power Generated (MWH)	<u>1,699,944</u>	<u>5,909,664</u>	<u>12,550,125</u>
10. Gross Electrical Power Generated (MWH)	<u>549,530</u>	<u>1,943,130</u>	<u>4,121,520</u>
11. Net Electrical Power Generated (MWH)	<u>535,183</u>	<u>1,894,238</u>	<u>4,012,024</u>
12. Reactor Service Factor	<u>91.6</u>	<u>96.8</u>	<u>29.8</u>
13. Reactor Available Factor	<u>100</u>	<u>100</u>	<u>86.9</u>
14. Unit Service Factor	<u>89.8</u>	<u>94.7</u>	<u>27.9</u>
15. Unit Availability Factor	<u>89.8</u>	<u>94.7</u>	<u>27.9</u>
16. Unit Capacity Factor (using MDC)	<u>67.5</u>	<u>82.3</u>	<u>20.6</u>
17. Unit Capacity Factor (using Design MWe)	<u>67.5</u>	<u>82.3</u>	<u>20.6</u>
18. Forced Outage Rate	<u>10.2</u>	<u>5.3</u>	<u>69.5</u>
19. Shutdowns scheduled to begin in next 6 months (state type, date and duration of each):			

20. If shutdown at end of report period, estimated date of startup: \_\_\_\_\_

21. Plants in Test Status (prior to commercial operation) Report the Following:

	<u>Forecast</u>	<u>Achieved</u>
Initial Criticality	_____	_____
Initial Electrical Power Generation	_____	_____
Commercial Operation	_____	_____



## SUMMARY:

Unit operated at an average load  
of 822 MWe.

UNIT NAME Browns Ferry 2DATE 4/7/77COMPLETED BY Harold WallsREPORT MONTH March

## PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
3	770306	F		A	No Shutdown	Derated to 628 MWe for Recir M-G set maintenance
4	770308	F		A	No Shutdown	Derated to 554 MWe due to Recir pump failure
5	770310	F	46.50	A	B	Recir pump maintenance
6	770323	F	29.18	A	C	Load reject during control valve testing
						<p>(1) REASON:</p> <p>A-EQUIPMENT FAILURE (EXPLAIN)</p> <p>B-MAINT, OR TEST</p> <p>C-REFUELING</p> <p>D-REGULATORY RESTRICTION</p> <p>E-OPERATOR TRAINING AND LICENSING EXAMINATION</p> <p>F-ADMINISTRATIVE</p> <p>G-OPERATIONAL ERROR (EXPLAIN)</p> <p>(2) METHOD:</p> <p>A-MANUAL</p> <p>B-MANUAL SCRAM</p> <p>C-AUTOMATIC SCRAM</p>



UNIT Browns Ferry 2DATE 4/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH March

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>1069</u>	25	<u>461</u>
2	<u>1048</u>	26	<u>634</u>
3	<u>1065</u>	27	<u>747</u>
4	<u>1017</u>	28	<u>847</u>
5	<u>1065</u>	29	<u>925</u>
6	<u>979</u>	30	<u>969</u>
7	<u>692</u>	31	<u>982</u>
8	<u>523</u>		
9	<u>523</u>		
10	<u>165</u>		
11	<u>-9</u>		
12	<u>237</u>		
13	<u>436</u>		
14	<u>562</u>		
15	<u>648</u>		
16	<u>717</u>		
17	<u>789</u>		
18	<u>881</u>		
19	<u>949</u>		
20	<u>1005</u>		
21	<u>1038</u>		
22	<u>1037</u>		
23	<u>90</u>		
24	<u>180</u>		

Note: Negative values indicate station  
use when unit is off line.



UNIT NAME Brown's Ferry 3DATE 4/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846OPERATING STATUS:1. Reporting Period: 0000770301 to 2400770331Gross Hours in Reporting Period: 7442. Currently Authorized Power Level MWe 3293 MWe-net 1065Max. Depend. capacity (MWe-net) 10653. Power Level to which restricted (if any): NA

4. Reasons for restrictions (if any):

	This Month	Yr-To-Date	Cumulative To Date
5. Hours Reactor Was Critical	720.47	720.47	720.47
6. Reactor Reserve Shutdown Hours	23.53	23.53	23.53
7. Hours Generator On-Line	713.75	713.75	713.75
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	2,107,392	2,107,392	2,107,392
10. Gross Electrical Power Generated (MWH)	696,010	696,010	696,010
11. Net Electrical Power Generated (MWH)	677,300	677,300	677,300
12. Reactor Service Factor	96.8	96.8	96.8
13. Reactor Available Factor	100	100	100
14. Unit Service Factor	95.9	95.9	95.9
15. Unit Availability Factor	95.9	95.9	95.9
16. Unit Capacity Factor (using MDC)	85.5	85.5	85.5
17. Unit Capacity Factor (using Design MWe)	85.5	85.5	85.5
18. Forced Outage Rate	4.1	4.1	4.1
19. Shutdowns scheduled to begin in next 6 months (state type, date and duration of each):			

20. If shutdown at end of report period, estimated date of startup: \_\_\_\_\_

21. Plants in Test Status (prior to commercial operation) Report the Following:

	Forecast	Achieved
Initial Criticality	_____	_____
Initial Electrical Power Generation	_____	_____
Commercial Operation	_____	_____

## SUMMARY:

Unit was declared commercial on 3/1/77

UNIT NAME Browns Ferry 3DATE 4/7/77COMPLETED BY Harold WallsREPORT MONTH March

## PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
5	770302	F	13.07	A	B	EHC oil leak
6	770311	F		A	NA	Derated because of main steam tunnel temp. sw failure
7	770318	F	17.18	A	C	Loss condenser vacuum
8	770320	F		A	NA	Derated due to relief valve leak
						(1) REASON: A-EQUIPMENT FAILURE (EXPLAIN) B-MAINT, OR TEST C-REFUELING D-REGULATORY RESTRICTION E-OPERATOR TRAINING AND LICENSING EXAMINATION F-ADMINISTRATIVE G-OPERATIONAL ERROR (EXPLAIN)
						(2) METHOD: A-MANUAL B-MANUAL SCRAM C-AUTOMATIC SCRAM

UNIT Browns Ferry 3DATE 4/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH March

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>1028</u>	25	<u>991</u>
2	<u>598</u>	26	<u>1011</u>
3	<u>370</u>	27	<u>1002</u>
4	<u>770</u>	28	<u>1007</u>
5	<u>913</u>	29	<u>984</u>
6	<u>1036</u>	30	<u>997</u>
7	<u>1060</u>	31	<u>1006</u>
8	<u>1061</u>		
9	<u>1056</u>		
10	<u>1066</u>		
11	<u>895</u>		
12	<u>911</u>		
13	<u>1083</u>		
14	<u>1034</u>		
15	<u>1063</u>		
16	<u>1040</u>		
17	<u>1065</u>		
18	<u>548</u>		
19	<u>261</u>		
20	<u>668</u>		
21	<u>802</u>		
22	<u>818</u>		
23	<u>965</u>		
24	<u>1022</u>		

Note: Negative values indicate station  
use when unit is off line.