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N. R. C.

FROM:

Tennessee Valley Authority
Decatur, Ala.
H. J. Green

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MONTHLY REPORT

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6/13/77

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(1-P)

PLANT NAME:

Browns Ferry Units 1-2-3

RJL 6/20/77

ENCLOSURE

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

(18-P)

FOR ACTION/INFORMATION

MIPC W/2 CYS FOR ACTION

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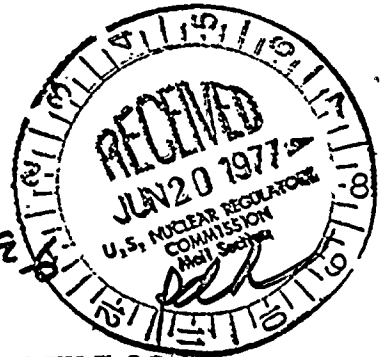
CONTROL NUMBER

771710078

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

June 13, 1977

50-259/260/298



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

REGULATORY DOCKET FILE COPY

Gentlemen:

Enclosed is the May 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

A handwritten signature in cursive script, appearing to read "H. J. Green".

H. J. Green
Plant Superintendent

Enclosures

CC: Director, Region II
Nuclear Regulatory Commission
Office of Inspection and Enforcement
230 Peachtree Street, NW
Suite 818
Atlanta, GA 30303
(1 copy)

Director, Office of Inspection & Enforcement
Nuclear Regulatory Commission
Washington, D. C. 20555
(10 copies)

771710078

UNIT NAME Browns Ferry IDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846OPERATING STATUS:1. Reporting Period: 0000770501 to 2400770531Gross 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): N/A

4. Reasons for restrictions (if any):

	This Month	Yr-To-Date	Cumulative To Date
5. Hours Reactor Was Critical	744	3,380.39	10,474.9
6. Reactor Reserve Shutdown Hours	0	242.61	4,033.95
7. Hours Generator On-Line	744	3,322.31	10,148.1
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	2,174,578	9,107,962	25,887,872
10. Gross Electrical Power Generated (MWH)	726,960	3,054,280	8,662,230
11. Net Electrical Power Generated (MWH)	703,440	2,969,609	8,414,694
12. Reactor Service Factor	100	93.3	42.2
13. Reactor Available Factor	100	100	58.4
14. Unit Service Factor	100	91.7	40.9
15. Unit Availability Factor	100	91.7	40.9
16. Unit Capacity Factor (using MDC)	88.8	77.0	31.8
17. Unit Capacity Factor (using Design MWe)	88.8	77.0	31.8
18. Forced Outage Rate	0	7.2	55.7
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 operated at an average
load of 977 MWe

UNIT NAME Browns Ferry IDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
12	770514	F				Derated for recorc. pump maintenance.
						(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

GROSS ROLL 1

DATE

6/1/77

COMPLETED BY

Ted Thom, J. Steele

DAILY UNIT POWER OUTPUT

MONTH

May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	879	25	1023
2	928	26	1019
3	1047	27	1024
4	1022	28	896
5	1029	29	1079
6	1069	30	936
7	1050(E)	31	1008
8	1062		
9	962		
10	1020		
11	-1029		
12	1058		
13	1040		
14	528		
15	542		
16	598		
17	714		
18	821		
19	950		
20	1002		
21	1035		
22	1028		
23	1038		
24	1024		

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

(E) = estimate

UNIT NAME Brownberry IIDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846

OPERATING STATUS:

1. Reporting Period: 0000660501 to 2400770531Gross 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): N/A

4. Reasons for restrictions (if any):

	This Month	Yr-To-Date	Cumulative To Date
5. Hours Reactor Was Critical	728.43	3,409.39	6,763.21
6. Reactor Reserve Shutdown Hours	15.57	213.61	10,587.79
7. Hours Generator On-Line	700.48	3,329.62	6,395.35
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	1,959,701	9,538,757	16,179,218
10. Gross Electrical Power Generated (MWH)	642,880	3,140,680	5,319,070
11. Net Electrical Power Generated (MWH)	622,017	3,056,145	5,173,931
12. Reactor Service Factor	97.9	94.1	34.2
13. Reactor Available Factor	100	100	87.8
14. Unit Service Factor	94.2	91.9	32.4
15. Unit Availability Factor	94.2	91.9	32.4
16. Unit Capacity Factor (using MDC)	78.5	79.2	24.6
17. Unit Capacity Factor (using Design MWe)	78.5	79.2	24.6
18. Forced Outage Rate	5.8	8.1	64.9

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 operated at an average
load of 918 MWe.

UNIT NAME Browns Ferry IIDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May 1977

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
10.	770503	F	24.78	B	C	Scram during performance of SI.
11.	770522	F	18.73	A	C	Flux spike during recirc. pump start.

UNIT Browns Ferry IIDATE 6/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	529	25	945
2	548	26	1024
3	272	27	1029
4	158	28	983
5	417	29	1095
6	569	30	928
7	708	31	1080
8	841		
9	875		
10	987		
11	1021		
12	1031		
13	1048		
14	1028		
15	1018		
16	1043		
17	1007		
18	1037		
19	1063		
20	1000		
21	982		
22	178		
23	585		
24	825		

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

UNIT NAME Brown Perry IIIDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846OPERATING STATUS:1. Reporting Period: 0000770501 to 2400770531Gross Hours in Reporting Period: 7442. Currently Authorized Power Level MWh 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	698.38	2,020.18	2,020.18
6. Reactor Reserve Shutdown Hours	45.62	186.82	186.82
7. Hours Generator On-Line	674.72	1,964.15	1,964.15
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	1,880,784	5,638,584	5,638,584
10. Gross Electrical Power Generated (MWH)	606,560	1,854,340	1,854,340
11. Net Electrical Power Generated (MWH)	585,195	1,798,061	1,798,061
12. Reactor Service Factor	93.9	91.5	91.5
13. Reactor Available Factor	100	100	100
14. Unit Service Factor	90.7	89.0	89.0
15. Unit Availability Factor	90.7	89.0	89.0
16. Unit Capacity Factor (using MDC)	73.9	76.5	76.5
17. Unit Capacity Factor (using Design MWe)	73.9	76.5	76.5
18. Forced Outage Rate	9.3	11.0	11.0
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 operated at an average
load of 899 MWe.

UNIT NAME Browns Ferry IIIDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May 1977

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
10.	770501	F	1.75	A	B	Leaking relief valve
11.	770510	F	34.65	B	C	MSIV isolation during SI
12.	770515	F	21.43	A	C	Turbine Trip
13.	770524	F	11.45	B	C	Sensing line inadvertently bumped

(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 IIIDATE 6/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>400</u>	25	<u>519</u>
2	<u>750</u>	26	<u>864</u>
3	<u>747</u>	27	<u>926</u>
4	<u>970</u>	28	<u>954</u>
5	<u>1005</u>	29	<u>1011</u>
6	<u>1004</u>	30	<u>868</u>
7	<u>1056</u>	31	<u>1005</u>
8	<u>1045</u>		
9	<u>812</u>		
10	<u>396</u>		
11	<u>27</u>		
12	<u>470</u>		
13	<u>610</u>		
14	<u>743</u>		
15	<u>364</u>		
16	<u>348</u>		
17	<u>729</u>		
18	<u>857</u>		
19	<u>997</u>		
20	<u>949</u>		
21	<u>1000</u>		
22	<u>992</u>		
23	<u>1026</u>		
24	<u>579</u>		

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

UNIT NAME Browns Ferry IDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846OPERATING STATUS:1. Reporting Period: 0000770501 to 2400770531Gross Hours in Reporting Period: 7442. Currently Authorized Power Level MWh 3293 MWe-net 1065Max. Depend. capacity (MWe-net) 10653. Power Level to which restricted (if any): N/A

4. Reasons for restrictions (if any):

	This Month	Yr-To-Date	Cumulative To Date
5. Hours Reactor Was Critical	744	3,380.39	10,474.9
6. Reactor Reserve Shutdown Hours	0	242.61	4,033.95
7. Hours Generator On-Line	744	3,322.31	10,148.1
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	2,174,578	9,107,962	25,887,872
10. Gross Electrical Power Generated (MWH)	726,960	3,054,280	8,662,230
11. Net Electrical Power Generated (MWH)	703,440	2,969,609	8,414,694
12. Reactor Service Factor	100	93.3	42.2
13. Reactor Available Factor	100	100	58.4
14. Unit Service Factor	100	91.7	40.9
15. Unit Availability Factor	100	91.7	40.9
16. Unit Capacity Factor (using MDC)	88.8	77.0	31.8
17. Unit Capacity Factor (using Design MWe)	88.8	77.0	31.8
18. Forced Outage Rate	0	7.2	55.7

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 operated at an average
load of 977 MWe

UNIT NAME Browns Ferry IDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
12	770514	F				Derated for recorc. pump maintenance.
						(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 BLOWNS FERRY 1DATE 6/1/77COMPLETED BY Ted Thom, J. SteeleDAILY UNIT POWER OUTPUTMONTH May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>879</u>	25	<u>1023</u>
2	<u>928</u>	26	<u>1019</u>
3	<u>1047</u>	27	<u>1024</u>
4	<u>1022</u>	28	<u>896</u>
5	<u>1029</u>	29	<u>1079</u>
6	<u>1069</u>	30	<u>936</u>
7	<u>1050(E)</u>	31	<u>1008</u>
8	<u>1062</u>		
9	<u>962</u>		
10	<u>1020</u>		
11	<u>-1029</u>		
12	<u>1058</u>		
13	<u>1040</u>		
14	<u>528</u>		
15	<u>542</u>		
16	<u>598</u>		
17	<u>714</u>		
18	<u>821</u>		
19	<u>950</u>		
20	<u>1002</u>		
21	<u>1035</u>		
22	<u>1028</u>		
23	<u>1038</u>		
24	<u>1024</u>		

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

(E) = estimate

UNIT NAME Brown Perry IIDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846OPERATING STATUS:1. Reporting Period: 0000660501 to 2400770531Gross 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): N/A

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Initial Criticality		
Initial Electrical Power Generation		
Commercial Operation		

SUMMARY:

Unit operated at an average
load of 918 MWe.

UNIT NAME Browns Ferry IIDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May 1977

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11.	770522	F	18.73	A	C	Flux spike during recirc. pump start.
(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 IIDATE 6/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
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5	417	29	1095
6	569	30	928
7	708	31	1080
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9	875		
10	987		
11	1021		
12	1031		
13	1048		
14	1028		
15	1018		
16	1043		
17	1007		
18	1037		
19	1063		
20	1000		
21	982		
22	178		
23	585		
24	825		

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

UNIT NAME Brown Perry IIIDATE 6/7/77COMPLETED BY: Harold WallsTELEPHONE 729-6846

OPERATING STATUS:

1. Reporting Period: 0000770501 to 2400770531Gross 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

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7. Hours Generator On-Line	674.72	1,964.15	1,964.15
8. Unit Reserve Shutdown Hours	0	0	0
9. Gross Thermal Power Generated (MWH)	1,880,784	5,638,584	5,638,584
10. Gross Electrical Power Generated (MWH)	606,560	1,854,340	1,854,340
11. Net Electrical Power Generated (MWH)	585,195	1,798,061	1,798,061
12. Reactor Service Factor	93.9	91.5	91.5
13. Reactor Available Factor	100	100	100
14. Unit Service Factor	90.7	89.0	89.0
15. Unit Availability Factor	90.7	89.0	89.0
16. Unit Capacity Factor (using MDC)	73.9	76.5	76.5
17. Unit Capacity Factor (using Design MWe)	73.9	76.5	76.5
18. Forced Outage Rate	9.3	11.0	11.0
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 operated at an average
load of 899 MWe.

UNIT NAME Browns Ferry IIIDATE 6/7/77COMPLETED BY Harold WallsREPORT MONTH May 1977

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
10.	770501	F	1.75	A	B	Leaking relief valve
11.	770510	F	34.65	B	C	MSIV isolation during SI
12.	770515	F	21.43	A	C	Turbine Trip
13.	770524	F	11.45	B	C	Sensing line inadvertently bumped
(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 Wms Ferry IIIDATE 6/7/77COMPLETED BY Harold WallsDAILY UNIT POWER OUTPUTMONTH May 1977

<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>	<u>DAY</u>	<u>AVERAGE DAILY MWe-net</u>
1	<u>400</u>	25	<u>519</u>
2	<u>750</u>	26	<u>864</u>
3	<u>747</u>	27	<u>926</u>
4	<u>970</u>	28	<u>954</u>
5	<u>1005</u>	29	<u>1011</u>
6	<u>1004</u>	30	<u>868</u>
7	<u>1056</u>	31	<u>1005</u>
8	<u>1045</u>		
9	<u>812</u>		
10	<u>396</u>		
11	<u>27</u>		
12	<u>470</u>		
13	<u>610</u>		
14	<u>743</u>		
15	<u>364</u>		
16	<u>348</u>		
17	<u>729</u>		
18	<u>857</u>		
19	<u>997</u>		
20	<u>949</u>		
21	<u>1000</u>		
22	<u>992</u>		
23	<u>1026</u>		
24	<u>579</u>		

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

