

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

June 15, 2001

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) - MAY 2001 MONTHLY OPERATING REPORT

The Enclosure provides the May 2001 Monthly Operating Report (MOR) as required by BFN Technical Specifications Section 5.6.4.

In accordance with NRC RIS 2001-05, only one paper copy of this document is being sent to the NRC Document Control Desk. If you have any questions concerning this report, please call me at (256) 729-2636.

Sincerely Nhne Manager of Licensing and Industry Affairs Enclosure \See page 2 cc:

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U.S. Nuclear Regulatory Commission Page 2 June 15, 2001 Enclosure cc (Enclosure): INPO Records Center Institute of Nuclear Power Operations 700 Galleria Parkway Atlanta, Georgia 30339-5957 Mr. James Lang, Manager Advanced Reactor Department Electric Power Research Institute 3340 Hillview Avenue Palo Alto, California 94304 Ms. Barbara Lewis McGraw-Hill Companies 1200 G Street, N.W. Suite 1100 Washington, D.C. 20005-3802 (Via NRC Electronic Distribution) Mr. Paul E. Fredrickson, Branch Chief U.S. Nuclear Regulatory Commission Region II Sam Nunn Atlanta Federal Center 61 Forsyth Street, S.W., Suite 23T85 Atlanta, Georgia 30303 Mr. Herbert N. Berkow, Director Project Directorate II Division of Licensing Project Management Office of Nuclear Reactor Regulation 11555 Rockville Pike Rockville, Maryland 20852-2738 NRC Resident Inspector Browns Ferry Nuclear Plant 10833 Shaw Road Athens, Alabama 35611 Regional Administrator U.S. Nuclear Regulatory Commission Region II Sam Nunn Atlanta Federal Center 61 Forsyth Street, S.W., Suite 23T85 Atlanta, Georgia 30303

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY BROWNS FERRY NUCLEAR PLANT (BFN)

MONTHLY OPERATING REPORT

MAY 2001

UNIT 1

DOCKET NUMBER 50-259

LICENSE NUMBER DPR-33

UNIT 2

DOCKET NUMBER 50-260

LICENSE NUMBER DPR-52

UNIT 3

DOCKET NUMBER 50-296

LICENSE NUMBER DPR-68

OPERATIONAL SUMMARY MAY 2001

BROWNS FERRY NUCLEAR PLANT UNIT 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 (MDC) of zero MWe. Accordingly, TVA does not report cumulative hours for the period beginning June 1, 1985, when calculating the operating status variables.

BROWNS FERRY NUCLEAR PLANT UNIT 2

For the month of May, Unit 2 operated at approximately 100 percent power.

BROWNS FERRY NUCLEAR PLANT UNIT 3

For the month of May, Unit 3 operated at approximately 100 percent power.

OPERATING DATA REPORT

Doc	ket No. 50-	-259			
Uni	t Name BF	N Unit 1			
Dat	e Jur	ne 4, 2001			
Con	npleted By J. I	E. Wallace			
Tele	ephone (25	56) 729-7874			
Rep	orting Period Ma	ay 2001			
1.	Design Electrical R	ating (Net MWe):	1065		
2.	2. Maximum Dependable Capacity (MWe-Net)		0		
			Month	Yr-to-Date	Cumulative*
2	Maril an efflored				
3.	Number of Hours				
3.	Reactor was Critic	al	0	0	59521
3. 4.	Reactor was Critic Hours Generator	al	0	0	59521
3. 4.	Reactor was Critic Hours Generator On-Line	al	00	0	59521 58267
3. 4. 5.	Reactor was Critic Hours Generator On-Line Unit Reserve	al	0	0	59521 58267
3. 4. 5.	Reactor was Critic Hours Generator On-Line Unit Reserve Shutdown Hours	al	0 0 0	0 0 0	59521 58267 0
3. 4. 5. 6.	Number of Hours Reactor was Critic Hours Generator On-Line Unit Reserve Shutdown Hours Net Electrical Ener	al rgy Generated	0 0 0	0 0 0 0	59521 58267 0

* Excludes hours under Administration Hold (June 1, 1985 to Present)

OPERATING DATA REPORT

Docket No.	50-260			
Unit Name	BFN Unit 2			
Date	June 4, 2001			
Completed By	J. E. Wallace			
Telephone	(256) 729-7874			
Reporting Period	May 2001			
I. Design Electrical Rating (Net MWe):				
2. Maximum Depe	Maximum Dependable Capacity (MWe-Net) 1118			

		Month	Yr-to-Date	Cumulative
3.	Number of Hours Reactor was Critical	744	2,779	135,088
4.	Hours Generator On-Line	744	2,639	132,495
5.	Unit Reserve Shutdown Hours	0	0	0
6.	Net Electrical Energy Generated (MWh)	835,044	2,859,839	130,686,745

OPERATING DATA REPORT

50-296	•		
BFN Unit 3			
June 4, 2001			
J. E. Wallace			
(256) 729-7874			
May 2001			
Design Electrical Rating (Net MWe):			
Maximum Dependable Capacity (MWe-Net)			
	50-296 BFN Unit 3 June 4, 2001 J. E. Wallace (256) 729-7874 May 2001 I Rating (Net MWe): ndable Capacity (MWe-Net)		

		Month	Yr-to-Date	Cumulative
3.	Number of Hours Reactor was Critical	744	3,623	91,693
4.	Hours Generator On-Line	744	3,623	90,279
5.	Unit Reserve Shutdown Hours	0	0	0
6.	Net Electrical Energy Generated (MWh)	828,573	4,071,580	90,991,015

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UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2001

DOCKET NO:	50-259
UNIT NAME:	BFN-1
DATE:	June 4, 2001
COMPLETED BY:	J. E. Wallace
TELEPHONE:	(256) 729-7874

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report No,	System Code ⁴	Component Code ⁴	Cause and Corrective Action to Prevent Recurrence
1	06/01/85	S	744	F	4	N/A	N/A	N/A	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 and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

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

⁴ Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) (NUREG - 1022)

UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2001

DOCKET NO:

50-260

								UNIT DATI COM TELI	' NAME: E: PLETED BY: EPHONE:	BFN-2 June 4, 2001 J. E. Wallace (256) 729-7874
No.	Date	Туре	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report No,	System Code ⁴	Component Code ⁴	Cause and Co Recurrence	orrective Action to Prevent
N/A										
¹ E. For	cad	² Reaso	n.			³ Method		4 Instruc	tions for Preparation	n of
r: ror S: Sch	S: Scheduled A-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)			1-Manual 2-Manual Scram 3-Automatic Scram 4-Continuation of E Outage 5-Reduction 9-Other	xisting	Data E Event 1 (NURE	ntry sheets for Lice Report (LER) G - 1022)	nsee		

UNIT SHUTDOWNS AND POWER REDUCTIONS REPORT MONTH: MAY 2001

DOCKET NO:	50-296
UNIT NAME:	BFN-3
DATE:	June 4, 2001
COMPLETED BY:	J. E. Wallace
TELEPHONE:	(256) 729-7874

No.	Date	Type ¹	Duration	Reason ²	Method of	Licensee	System	Component	Cause and Corrective Action to Prevent
			(Hours)		Shutting	Event Report	Code ⁴	Code ⁴	Recurrence
					Down	No.			
					Reactor				
N/A									
								•	•
		1							

¹ F: Forced

S: Scheduled

² Reason:
A-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)

³ Method

1-Manual

2-Manual Scram

3-Automatic Scram

4-Continuation of Existing

Outage

5-Reduction

9-Other

⁴ Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) (NUREG - 1022)



Dwight E. Nunn Vice President

June 25, 2001

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

- Subject: Docket Nos. 50-361 and 50-362 Proposed Change Number NPF-10/15-514 Increase in Reactor Power to 3438 MWt San Onofre Nuclear Generating Station, Units 2 and 3
- Reference: SCE to NRC letter dated April 3, 2001, Subject: Proposed Change Number NPF-10/15-514 Increase in Reactor Power to 3438 MWt, San Onofre Nuclear Generating Station Units 2 and 3

Gentlemen:

This letter provides responses to NRC requests for additional information (RAIs) concerning the Southern California Edison (SCE) request to increase the reactor power to 3438 MWt at San Onofre Units 2 and 3, Amendment Applications 207 and 192, Proposed Change Number 514 (Reference).

If you have any further questions regarding these amendment applications, please contact me or Mr. Jack L. Rainsberry (949) 368-7420.

Sincerely

Enclosure

- cc: E. W. Merschoff, Regional Administrator, NRC Region IV
 - C. C. Osterholtz, NRC Senior Resident Inspector, San Onofre Units 2 and 3
 - J. E. Donoghue, NRC Project Manager, San Onofre Units 2 and 3
 - S. Y. Hsu, Department of Health Services, Radiologic Health Branch

P. O. Box 128 San Clemente, CA 92674-0128 949-368-1480 Fax 949-368-1490

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, <u>ET AL</u>. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 2 of the San Onofre Nuclear Generating Station

Docket No. 50-361

Amendment Application No. 207

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90,

hereby submit information in support of Amendment Application No. 207. This

information consists of responses to NRC requests for additional information on

Proposed Change No. NPF-10-514 to Facility Operating License NPF-10. Proposed

Change No. NPF-10-514 is a request to revise the Facility Operating License by

increasing the licensed power for operation.

Subscribed on this 25th day of ne . 2001.

Respectfully submitted, SOUTHERN CALIFORNIA EDISON COMPANY

Bv: Dwight E. Nu Vice President

State of California

County of San Diego

On (6/25/2001) before me, Maran Maran

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, <u>ET AL</u>. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 3 of the San Onofre Nuclear Generating Station

Docket No. 50-362

Amendment Application No. 192

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90,

hereby submit information in support of Amendment Application No. 192. This

information consists of responses to NRC requests for additional information on

Proposed Change No. NPF-15-514 to Facility Operating License NPF-15. Proposed

Change No. NPF-15-514 is a request to revise the Facility Operating License by

increasing the licensed power for operation.

Subscribed on this 25% day of =Hene, 2001.

Respectfully submitted, SOUTHERN CALIFORNIA EDISON COMPANY

By: Dwight E. Nur Vice President

State of California

County of San Diego ranes On 6/25/2001 before me,

appeared \underline{WGHE} , \underline{NW} , \underline{NW}, \underline{NW} , \underline{NW} , \underline

Band Signature



Enclosure

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Question 1:

Provide details of initial manual operation of power uprate.

Response:

The initial increase in reactor power, using the Crossflow system on San Onofre Units 2 and 3, is planned to be controlled manually by adjusting the correction factors, rather than by using the automatic update process discussed in Proposed Change Number (PCN)-514 and subsequent Southern California Edison responses to NRC requests for additional information. The manual adjustment is a calibration. The correction factors will be determined in the same manner as the automatic update, using the ratio of the process feedwater flow, steam flow, blowdown flow, feedwater temperature, and the Crossflow measurements of the parameters. The process data and Crossflow data will be taken at the same time and over several hours. The correction factors will then be manually input to the Plant Monitoring System (PMS) and Core Operating Limit Supervisory System (COLSS) Backup Computer. The measurements, calculation of correction factors, and manual input will be controlled by procedures. Persons performing and checking the measurements will initial or sign steps in the procedure.

At least one calibration will occur within a day prior to and following the initial increase in power. A second calibration will occur approximately two days later, then a third calibration approximately one week later. Subsequent calibrations will be performed at approximately every two weeks while in the manual mode. For San Onofre Unit 3, it is anticipated that the system will be available for service in the manual mode in early July 2001 and can be placed in automatic operation approximately the first week in September. For San Onofre Unit 2, it is anticipated that the system will be available for service in the manual mode in early July 2001 and can be placed in automatic operation approximately the first week in September. For San Onofre Unit 2, it is anticipated that the system will be available for service in the manual mode in mid-August, 2001, and operated in automatic by approximately mid-September.

During the initial manual mode, the COLSS calculations will be monitored approximately daily to ensure that the process feedwater and steam flow venturis and transmitters are not drifting unexpectedly or excessively. Monitoring will include comparing the calculation of feedwater and steam flow by COLSS with the Crossflow system and comparing the calculations of reactor power by feedwater flow and main steam flow for divergences.

Question 2:

Confirm that the dose calculations and assessments supporting PCN-514 were all done using the analyses of record (AOR) dose calculation methodologies and that during the dose impact analyses/assessments, no dose analysis parameters were changed.

Response:

The dose calculations and assessments supporting Proposed Change Number (PCN)-514 were all done using the analyses of record dose calculation methodologies and dose analysis parameters, to the extent of the exceptions listed in Section 4.2 of the Amendment request. The exceptions are identified below.

Section	Event	Exceptions	Dose Impact
4.2.1.1	Inadvertent Opening of a Steam Generator Atmospheric Dump Valve with a Single Active Failure (IOSGADV/SAF)	None	N/A
4.2.1.2	Increased Main Steam Flow with a Single Active Failure (IMSF/SAF)	Power Uprate Source Term	AOR doses remain bounding
4.2.2.1	Limiting Fault events without fuel failure	None	N/A
4.2.2.2	Pre-trip Steam Line Break (SLB)	Power Uprate Source Term	AOR doses remain bounding
4.2.2.3	Reactor Coolant Pump (RCP) Sheared Shaft (SS)	Power Uprate Source Term	AOR doses remain bounding
4.2.2.4	Control Element Assembly Ejection (CEA Ej)	Power Uprate Source Term	Power Uprate thyroid doses are approximately 1% more severe. (Use of approved International Commission on Radiological Protection (ICRP)-30 Dose Conversion Factor (DCF) methodology would compensate by lowering thyroid doses by approximately 30%.)

Section	Event	Exceptions	Dose Impact
4.2.2.5	Loss Of Coolant Accident (LOCA)	Power Uprate Source Term	Power Uprate doses are more severe. (Per Table 4-1 of PCN- 514 Amendments request)
4.2.2.6	Fuel Handling Accident (FHA)	Power Uprate Source Term	Power Uprate doses are 2% more severe. (Removal of excess modeling conservatism present in the pairings of radial peaking factors and iodine fuel rod gap release fractions would compensate by lowering the doses.)
4.2.2.7	Spent Fuel Pool (SFP) Boiling	Power Uprate Source Term; SFP Heat Load; Initial SFP water temperature	AOR doses remain bounding
4.2.3.1	Equipment Qualification (EQ) Doses	Power Uprate Source Term	AOR doses remain bounding
4.2.3.2	Radwaste	Power Uprate Source Term	AOR doses remain bounding

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Question 3:

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Is there any change in operator action times as a result of PCN-514 power uprate?

Response:

The timing of operator actions supporting Updated Final Safety Analysis Report (UFSAR) Chapter 15 accident analyses are not changed as a result of PCN-514 power uprate.