NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-361
UNIT SONGS - 2
DATE March 16, 1987
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: February 1987
3. Licensed Thermal Power (MWt): 3390
4. Nameplate Rating (Gross MWe): 1127
5. Design Electrical Rating (Net MWe): 1070
6. Maximum Dependable Capacity (Gross MWe): 1127
7. Maximum Dependable Capacity (Net MWe): 1070
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
   NA
9. Power Level To Which Restricted, If Any (Net MWe): NA
10. Reasons For Restrictions, If Any: NA

		This Month	Yr.-to-Date	Cumulative
11.	Hours In Reporting Period	672.00	1,416.00	30,985.00
12.	Number Of Hours Reactor Was Critical	641.25	1,385.25	20,746.40
13.	Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14.	Hours Generator On-Line	625.03	1,369.03	20,246.54
15.	Unit Reserve Shutdown Hours	0.00	0.00	0.00
16.	Gross Thermal Energy Generated (MWH)	2,062,415.28	4,573,642.10	65,395,064.60
17.	Gross Electrical Energy Generated (MWH)	678,482.00	1,527,071.00	21,942,865.50
18.	Net Electrical Energy Generated (MWH)	645,214.00	1,456,162.00	20,741,567.55
19.	Unit Service Factor	93.01%	96.68%	65.34%
20.	Unit Availability Factor	93.01%	96.68%	65.34%
21.	Unit Capacity Factor (Using MDC Net)	89.73%	96.11%	62.56%
22.	Unit Capacity Factor (Using DER Net)	89.73%	96.11%	62.56%
23.	Unit Forced Outage Rate	6.99%	3.32%	5.32%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
    Cycle 4 Refueling Outage, August 1987, 75 day duration

25. If Shut Down At End Of Report Period, Estimated Date of Startup: NA
26. Units In Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	NA	NA
INITIAL ELECTRICITY	NA	NA
COMMERCIAL OPERATION	NA	NA

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-361

UNIT SONGS - 2

DATE March 16, 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

MONTH February 1987

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1092.46	17	974.79
2	1084.42	18	965.96
3	1089.50	19	967.46
4	1089.17	20	965.33
5	331.83	21	966.88
6	0.00	22	975.08
7	472.46	23	1013.21
8	1095.54	24	1055.58
9	1101.63	25	1064.42
10	1101.54	26	1092.50
11	1102.25	27	1054.58
12	1100.17	28	1062.42
13	1094.46	29	NA
14	1081.38	30	NA
15	957.92	31	NA
16	969.88		

7435u/4

IE24
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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH FEBRUARY 1987

DOCKET NO. 50-361
UNIT NAME SONGS - 2
DATE March 16, 1987
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	LER No.	System Code[4]	Component Code[4]	Cause & Corrective Action to Prevent Recurrence
32	870205	F	46.97	H	2	87-001	SJ	ISV	The reactor was manually tripped when feedwater flow to the steam generators was reduced below 50% due to the closure of Main Feedwater Block Valve 2HV-4051. The closure of the block valve was the result of a contract electrical test technician erroneously performing work in the Unit 2 valve control cabinet instead of the Unit 3 cabinet which had been authorized. As corrective action, meetings were held with contract personnel to reinforce the previous training received involving work practices in a dual unit plant including the need for attention to detail and the need to carefully verify the equipment identification numbers prior to starting of the work.

[1] F-Forced
S-Scheduled

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

[3] Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Continuation from Previous Month
5-Reduction of 20% or greater in the past 24 hours
6-Other (Explain)

[4] IEEE Std 803-1983

7435u/5

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-361

UNIT SONGS - 2

DATE March 16, 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

Date	Time	Event
February 1	0001	Unit is in Mode 1 at 100% reactor power. Turbine load at 1140 MWe gross.
February 5	0800	Reactor was manually tripped when feedwater flow to the steam generators was reduced below 50% due to closure of main feedwater block valve 2HV-4051. Unit is in Mode 3.
February 6	1423	Entered Mode 2.
	1425	Reactor was made critical.
February 7	0335	Entered Mode 1
	0658	Unit synchronized to the grid.
February 8	0330	Reactor power at 100%. Turbine load at 1150 MWe gross.
February 28	2400	Unit is in Mode 1 at 100% reactor power. Turbine load at 1150 MWe gross.

7435u/6

IE24
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REFUELING INFORMATION

DOCKET NO. 50-361

UNIT SONGS - 2

DATE March 16, 1987

MONTH: February 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

1. Scheduled date for next refueling shutdown.

   August 1987

2. Scheduled date for restart following refueling.

   October 1987

3. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

   Not yet determined

   What will these be?

   Not yet determined

4. Scheduled date for submitting proposed licensing action and supporting information.

   Not yet determined

5. Important Licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   Not yet determined

6. The number of fuel assemblies.

   a) In the core. 217

   b) In the spent fuel storage pool. 160

7. Licensed spent fuel storage capacity. 800

   Intended change in spent fuel storage capacity. Under Review

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

   Approximately 1997 (refueling only)

   Approximately 1993 (full offload capability)

7435u/7

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE March 16, 1987
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: February 1987
3. Licensed Thermal Power (MWt): 3390
4. Nameplate Rating (Gross MWe): 1127
5. Design Electrical Rating (Net MWe): 1080
6. Maximum Dependable Capacity (Gross MWe): 1127
7. Maximum Dependable Capacity (Net MWe): 1080
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

NA

9. Power Level To Which Restricted, If Any (Net MWe): NA
10. Reasons For Restrictions, If Any: NA

		This Month	Yr.-to-Date	Cumulative
11.	Hours In Reporting Period	672.00	1,416.00	25,536.00
12.	Number Of Hours Reactor Was Critical	0.00	50.62	16,663.30
13.	Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14.	Hours Generator On-Line	0.00	47.98	15,934.31
15.	Unit Reserve Shutdown Hours	0.00	0.00	0.00
16.	Gross Thermal Energy Generated (MWH)	0.00	100,514.24	46,504,299.58
17.	Gross Electrical Energy Generated (MWH)	0.00	30,994.50	15,593,229.00
18.	Net Electrical Energy Generated (MWH)	(3,823.52)	20,330.05	14,588,266.47
19.	Unit Service Factor	0.00%	3.39%	62.40%
20.	Unit Availability Factor	0.00%	3.39%	62.40%
21.	Unit Capacity Factor (Using MDC Net)	0.00%	1.33%	52.90%
22.	Unit Capacity Factor (Using DER Net)	0.00%	1.33%	52.90%
23.	Unit Forced Outage Rate	0.00%	0.00%	12.50%

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

25. If Shut Down At End Of Report Period, Estimated Date of Startup: 03/7/87 (Actual)
26. Units In Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	NA	NA
INITIAL ELECTRICITY	NA	NA
COMMERCIAL OPERATION	NA	NA

7435u/8

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-362

UNIT SONGS - 3

DATE March 16, 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

MONTH FEBRUARY 1987

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0 00	17	0.00
2	0.00	18	0.00
3	0.00	19	0.00
4	0.00	20	0.00
5	0.00	21	0.00
6	0.00	22	0.00
7	0.00	23	0.00
8	0.00	24	0.00
9	0.00	25	0.00
10	0.00	26	0.00
11	0.00	27	0.00
12	0.00	28	0.00
13	0.00	29	NA
14	0.00	30	NA
15	0.00	31	NA
16	0.00		

7435u/9

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH FEBRUARY 1987

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE March 16, 1987
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	LER No.	System Code[4]	Component Code[4]	Cause & Corrective Action to Prevent Recurrence
35	870102	S	672.00	C	4	NA	NA	NA	Refueling

[1] F-Forced
S-Scheduled

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

[3] Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Continuation from Previous Month
5-Reduction of 20% or greater in the past 24 hours
6-Other (Explain)

[4] IEEE Std 803-1983

7435u/10

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-362

UNIT SONGS - 3

DATE March 16, 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

Date	Time	Event
February 1	0001	Unit is in Mode 6, day 30 of the Cycle 3 refueling outage. Core alterations in progress.
February 3	1945	Core alterations completed.
February 4	1400	Reactor vessel head replaced.
February 7	2048	Entered Mode 5.
February 12	2255	Commenced Reactor Coolant System (RCS) fill and vent.
February 15	1200	Commenced Integrated Engineered Safety Feature (ESF) testing.
February 17	0800	Completed ESF testing.
February 28	2400	Unit is in Mode 5, day 57 of Cycle 3 refueling outage. Preparations for Mode 4 entry in progress.

7435u/11

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REFUELING INFORMATION

DOCKET NO. 50-362

UNIT SONGS - 3

DATE March 16, 1987

MONTH: February 1987

COMPLETED BY E. R. Siacor

TELEPHONE (714) 368-6223

1. Scheduled date for next refueling shutdown.

   June 1988

2. Scheduled date for restart following refueling.

   August 1988

3. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

   Not yet determined

   What will these be?

   Not yet determined

4. Scheduled date for submitting proposed licensing action and supporting information.

   Not yet determined

5. Important Licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   Not yet determined

6. The number of fuel assemblies.

   a) In the core. 217

   b) In the spent fuel storage pool. 160

7. Licensed spent fuel storage capacity. 800

   Intended change in spent fuel storage capacity. Under Review

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

   Approximately 1997 (refueling only)

   Approximately 1993 (Full offload capability)

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Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

TELEPHONE
(714) 368-6241

March 16, 1987

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

Subject: Docket Nos. 50-361/50-362
Monthly Operating Reports for February 1987
San Onofre Nuclear Generating Station, Units 2 and 3

Enclosed are the Monthly Operating Reports as required by Section 6.9.1.10 of Appendix A, Technical Specifications to Facility Operating Licenses NPF-10 and NPF-15 for San Onofre Nuclear Generating Station, Units 2 and 3, respectively.

Please contact us if we can be of further assistance.

Sincerely,
H E Morgan

Enclosures

cc: J. B. Martin (Regional Administrator, USNRC Region V)

F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)

Institute of Nuclear Power Operations (INPO)

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