NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-361
UNIT SONGS - 2
DATE April 11, 1985
COMPLETED BY L. I. Mayweather
TELEPHONE (714) 492-7700
Ext. 56264

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: March 1985
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	744	2,160	14,209
12.	Number Of Hours Reactor Was Critical	0	0	7,645.22
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	0	0	7,492.47
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	0	0	24,272,703.3
17.	Gross Electrical Energy Generated (MWH)	0	0	8,210,308.5
18.	Net Electrical Energy Generated (MWH)	-11,854	-20,282	7,744,666
19.	Unit Service Factor	0	0	52.73
20.	Unit Availability Factor	0	0	52.73
21.	Unit Capacity Factor (Using MDC Net)	0	0	50.94
22.	Unit Capacity Factor (Using DER Net)	0	0	50.94
23.	Unit Forced Outage Rate	0	0	3.97

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
    Refueling, October 21, 1984, 5 1/2 month duration (now in progress).

25. If Shut Down At End Of Report Period, Estimated Date of Startup: 4/16/85
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 April 11, 1985

COMPLETED BY L. I. Mayweather

TELEPHONE (714) 492-7700
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MONTH March 1985

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

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MARCH 1985

DOCKET NO. 50-361
UNIT NAME SONGS - 2
DATE April 11, 1985
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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
9	841020	S	744	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
9-Other (Explain)

[4] IEEE Std 803-1983

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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-361

UNIT SONGS - 2

DATE April 11, 1985

COMPLETED BY L. I. Mayweather

TELEPHONE (714) 492-7700
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Date/Time		Event
March 1,	0001	The unit is in Mode 5, day 132 of refueling/design change outage.
March 19,	0509	Entered Mode 4.
March 22,	0455	Entered Mode 5 to replace RCP seals that failed to stage properly.
March 29,	0815	Entered Mode 4.
March 31,	2359	The unit is in Mode 4, continuing startup testing associated with return to service from refueling/design change outage.

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REFUELING INFORMATION

DOCKET NO. 50-361

UNIT SONGS - 2

DATE April 11, 1985

COMPLETED BY L. I. Mayweather

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1. Scheduled date for next refueling shutdown.

   Not yet determined.

2. Scheduled date for restart following refueling.

   Not yet determined.

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. 72

7. Licensed spent fuel storage capacity. 800

   Intended change in spent fuel storage capacity. NA

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

   Approximately 1997.

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE April 11, 1985
COMPLETED BY L. I. Mayweather
TELEPHONE (714) 492-7700
Ext. 56264

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: March 1985
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	744	2,160	8,760
12.	Number Of Hours Reactor Was Critical	306.95	948.78	5,368.95
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	250.33	892	4,997.95
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	752,146.24	2,859,109.2	15,920,697.64
17.	Gross Electrical Energy Generated (MWH)	246,145	966,379.5	5,333,211
18.	Net Electrical Energy Generated (MWH)	217,394	894,261	4,994,631
19.	Unit Service Factor	33.65	41.30	57.05
20.	Unit Availability Factor	33.65	41.30	57.05
21.	Unit Capacity Factor (Using MDC Net)	27.06	38.33	52.79
22.	Unit Capacity Factor (Using DER Net)	27.06	38.33	52.79
23.	Unit Forced Outage Rate	66.35	58.70	21.28

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
    Refueling, August 1, 1985, duration of outage under review

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A
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. 50-362

UNIT SONGS - 3

DATE April 11, 1985

COMPLETED BY L. I. Mayweather

TELEPHONE (714) 492-7700
Ext. 56264

MONTH March 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	242.79
5	0	21	660.67
6	0	22	902.50
7	0	23	1098.29
8	0	24	1096.04
9	0	25	1056.25
10	0	26	1094.21
11	0	27	1089.50
12	0	28	1067.63
13	0	29	876.13
14	0	30	0.0
15	0	31	524.17
16	0		

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MARCH 1985

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE April 11, 1985
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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
12	850127	F	446.67	A	4	85-001	AB	XCV	Continuation of outage to replace packing on Pressurizer Spray Valve 3PV-0100B.
13	850319	F	14.22	A	3	85-008	JB	FCV	Unit tripped due to high steam generator level for E-089 caused by failure of mechanical linkage on Main Feedwater Regulating Valve 3FV-1111. The mechanical linkage was repaired.
14	850329	F	32.78	A	3	85-010	JC	IMOD	Unit tripped due to faulty variable setpoint card for steam generator low flow (primary steam generator DP). Faulty card was replaced.

[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
9-Other (Explain)

[4] IEEE Std 803-1983

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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-362

UNIT SONGS - 3

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Date/Time		Event
March 1,	0001	Unit is in Mode 5. Reactor coolant pump sweeps, reactor coolant system venting and preparations for drawing vacuum are in progress for Mode 4 entry.
March 5,	2300	Entered Mode 4.
March 10,	1307	Entered Mode 3.
March 11,	1926	Entered Mode 2. A Resistance Temperature Detector (RTD) associated with the core protection calculator is not functioning properly. The unit will remain in Mode 2 until the RTD problem is resolved.
March 11,	1950	Reactor critical.
March 12,	2015	An Unusual Event declared and Technical Specification shutdown required due to possible pressure boundary leakage.
March 12,	2030	Entered Mode 3.
March 13,	0930	Entered Mode 4.
March 14,	0237	Entered Mode 5 in preparation for resolution of RTD problem.
March 16,	0542	Entered Mode 4 following resolution of RTD problem.
March 17,	2040	Entered Mode 3.
March 18,	2148	Entered Mode 4.
March 18,	2203	Reactor critical.
March 19,	0910	Entered Mode 1.
March 19,	1440	Synchronized to the grid and applied block load of 55 MWe gross.
March 19,	1547	Reactor trip occurred due to high water level in Steam Generator E089. The high water level was due to a mechanical problem associated with the Main Feedwater Regulating Control Valve 3FV-1111.

Unit 3

(continued)

March 19,	2119	Entered Mode 2.
March 19,	2140	Reactor critical.
March 20,	0223	Entered Mode 1.
March 20,	0600	Synchronized to the grid and applied block load of 55 MWe gross.
March 21,	0225	Main Feedwater Pump K006 developed a control problem and cannot be used for feedwater flow until it is corrected. Unit is restricted at 65% power with only Main Feedwater Pump K005 available.
March 21,	1630	Restored K006 lube oil to normal alignment and brought unit to 80% power in preparation for heat treatment of intake structure and selected saltwater cooling piping. Turbine stop and governor valve testing will also occur before returning the Unit to full power operations.
March 22,	2052	Unit achieved 100% power following completion of heat treatment and valve testing.
March 25,	0830	Power reduced to 85% for bumping of sea water circulators to lower the differential pressure across the main condenser.
March 25,	1645	Power returned to 100%.
March 28,	2000	Commenced load reduction to 85% power to perform turbine stop and governor valve testing and bump sea water circulating pumps to improve sea water flow rate through the condenser.
March 29,	0548	Initiated power increase to 100%.
March 29,	2108	Unit tripped on Plant Protection System (PPS) steam generator low flow signals. An electronic component in the steam generator low flow relay matrix and variable setpoint circuits in PPS failed to operate correctly.
March 30,	2243	Entered Mode 2.
March 30,	2254	Reactor critical.
March 31,	0415	Entered Mode 1.
March 31,	0555	Synchronized to the grid and applied block load of 80 MWe gross.
March 31,	1230	Reactor power at 60%.

Unit 3

(Continued)

March 31,	1957	Reactor power at 90%.
March 31,	2255	Reactor power at 100%.
March 31,	2359	Unit is in Mode 1 at 100% power. Full power operations to continue.

REFUELING INFORMATION

DOCKET NO. 50-362

UNIT SONGS - 3

DATE April 11, 1985

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1. Scheduled date for next refueling shutdown.

   August 1, 1985

2. Scheduled date for restart following refueling.

   Not yet determined.

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

   Yes

   What will these be?

   Not yet determined.

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

   Proposed Technical Specification change will be submitted to the NRC for required boric acid volume and concentration Proposed Change Number (PCN) 163.

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.

   None. Reload analysis is the same as Unit 2.

6. The number of fuel assemblies.

   a) In the core. 217

   b) In the spent fuel storage pool. 0

7. Licensed spent fuel storage capacity. 800

   Intended change in spent fuel storage capacity. NA

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

   NA

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