NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-361
UNIT SONGS - 2
DATE 06/17/85
COMPLETED BY M. J. Farrell
TELEPHONE (714) 492-7700
Ext. 56907

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: May 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	3,623	15,672
12.	Number Of Hours Reactor Was Critical	686.22	950.49	8,595.71
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	671.11	913.99	8,406.46
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	2,210,948.70	2,535,153.20	26,807,856.50
17.	Gross Electrical Energy Generated (MWH)	744,227.50	856,789.00	9,067,097.50
18.	Net Electrical Energy Generated (MWH)	707,812.00	770,146.11	8,535,094.00
19.	Unit Service Factor	90.20	25.23	53.64
20.	Unit Availability Factor	90.20	25.23	53.64
21.	Unit Capacity Factor (Using MDC Net)	88.91	19.74	50.87
22.	Unit Capacity Factor (Using DER Net)	88.91	19.74	50.87
23.	Unit Forced Outage Rate	5.85	4.36	4.01

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

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

2941u

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-361

UNIT SONGS - 2

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700
Ext. 56907

MONTH May 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1049.96	17	1090.79
2	1100.38	18	136.00
3	1110.38	19	-0-
4	923.25	20	793.54
5	1103.50	21	1095.46
6	1102.25	22	1096.08
7	1100.33	23	1095.33
8	1100.17	24	1080.46
9	1100.19	25	1089.46
10	1078.83	26	1088.79
11	1098.79	27	1087.88
12	1100.25	28	1090.42
13	1097.46	29	1053.50
14	1097.88	30	21.13
15	1095.08	31	353.25
16	1094.38		

2941u

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MAY 1985

DOCKET NO. 50-361
UNIT NAME SONGS - 2
DATE 06/17/85
COMPLETED BY M. J. Farrel
TELEPHONE (714) 492-7700
Ext. 56907

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	850518	S	0	B	5	NA	NA	NA	Power reduction to bump circulator pumps.
13	850518	F	41.7	H	3	2-85-031	JC	ROD	Reactor trip occurred due to low DNBR values resulting from subgroup CEA's dropping. A missing lug nut, on a lead from a card cage to a ground bus common CEA Subgroups 5 and 6, caused abnormal energization of the subgroup 6 power coils and the resulting high current caused the subgroup 6 supply breaker to trip. The lead was reterminated and all Unit 2 & 3 CEA control panels were checks for similar loose connections.
14	850530	S	31.19	A	2	NA	TL	NA	Manual reactor trip initiated to allow investigation of T-G excitation system ground. Ground was due to carbon dust accumulation. Carbon dust removed and unit returned to service.

[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

2941u

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-361

UNIT SONGS - 2

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700
Ext. 56907

Date	Time	Event
May 1,	0001	Unit in Mode 1 at 95% reactor power. Turbine load is 1100 MWe gross. Power ascension testing and turbine-generator vibration monitoring in progress.
May 2,	0205	Commenced power increase to 100%.
	0420	Reactor power at 100%.
May 4,	0230	Reduced reactor power to 92% for turbine valve testing.
	0900	Reactor power reduced further to 80% for heat treat of intake structure.
	1930	Commenced power increase to 100%.
May 5,	0001	Reactor power at 100%.
May 10,	1643	Reduced reactor power for stop and governor valve testing.
	2225	Reactor power returned to 100%.
May 18,	0130	Reactor power reduced to 80% to bump circulator pumps.
	0428	Reactor trip occurred due to low DNBR as a result of Subgroup 6 CEA's dropping into the core. CEA's de-enenergized because of faulty ground connection in power supply associated with Subgroup 6.
May 19,	1023	Entered Mode 2.
	1047	Re-entered Mode 3 to recalculate estimated critical position.
	1247	Entered Mode 2.
	1258	Reactor critical.
	1445	Entered Mode 1.

MAY 1985 (Continued)
Unit 2

(Continued)

Date	Time	Event
May 20,	2210	Synchronized to grid and applied block load.
	2215	Reactor power at 100%.
May 23,	1525	Commenced boric acid addition to reduce power due to COLSS out of service.
	1530	COLSS returned to service.
May 24,	1723	Reduced reactor power to perform turbine valve testing.
	2236	Unit returned to full power operations.
May 29,	2000	Reduced reactor power to determine cause of turbine-generator excitation system ground.
May 30,	0400	Manually tripped reactor.
	0445	Entered Mode 3.
May 31,	0615	Entered Mode 2 following removal of carbon dust buildup from generator brushes.
	0630	Reactor critical.
	0814	Entered Mode 1.
	1113	Synchronized to grid and applied block load.
	1300	Reactor power at 40%.
	2359	Unit in Mode 1 at 85% reactor power. Full power operations are planned.

2941u

REFUELING INFORMATION

DOCKET NO. 50-361

UNIT SONGS - 2

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700
Ext. 56907

1. Scheduled date for next refueling shutdown.

   April, 1986

2. Scheduled date for restart following refueling.

   July, 1986

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.

2941u

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE 06/17/85
COMPLETED BY M. J. Farrell
TELEPHONE (714) 492-7700
Ext. 56907

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: May 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	3,623	10,223
12.	Number Of Hours Reactor Was Critical	716.78	2,249.84	6,670.01
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	712.47	2,169.50	6,275.45
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	2,340,249.60	6,997.441.20	20,059.029.64
17.	Gross Electrical Energy Generated (MWH)	773,065.00	2,333,370.50	6,700,202.00
18.	Net Electrical Energy Generated (MWH)	735,024.00	2,188,620.00	6,288.990.00
19.	Unit Service Factor	95.76	59.88	61.39
20.	Unit Availability Factor	95.76	59.88	61.39
21.	Unit Capacity Factor (Using MDC Net)	91.48	55.93	56.96
22.	Unit Capacity Factor (Using DER Net)	91.48	55.93	56.96
23.	Unit Forced Outage Rate	4.24	37.46	18.06

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
    Refueling, August, 1985, 110 days duration.

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

2941u

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-362

UNIT SONGS - 3

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700
Ext. 56907

MONTH May 1985

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	852.96	17	1,045.96
2	1,073.38	18	1,048.71
3	1,066.58	19	1,069.25
4	1,070.33	20	1,069.13
5	1,065.00	21	1,069.42
6	1,027.58	22	1,065.75
7	1,076.67	23	1,062.63
8	1,081.08	24	627.46
9	1,082.33	25	-0-
10	1,067.04	26	740.63
11	770.42	27	1,065.17
12	1,076.08	28	1,070.46
13	1,075.54	29	1,068.58
14	1,073.00	30	1,061.42
15	1,070.71	31	991.96
16	1,067.63		

2941u

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MAY 1985

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE 06/17/85
COMPLETED BY M. J. Farrell
TELEPHONE (714) 492-7700
Ext. 56907

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
18	850511	S	0	B	5	NA	NA	NA	Power reduction to remove water box 118 from service for inspection.
19	850524	F	31.53	A	3	3-85-020	JC	FU	Reactor tripped due to low DNBR values as a result of subgroup 15 CEA's dropping. A blown fuse in the hold bus logic circuit caused the CEA's to drop. Extensive trouble shooting of the circuitry and post-trip review analysis did not determine any cause for this blown fuse.

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

2941u

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-362

UNIT SONGS - 3

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700 Ext. 56907

Date	Time	Event
May 1,	0001	Unit in Mode 1 at 20% reactor power. Returning to full power operations following 3TV-0221 repair outage.
	0145	Reactor power at 50%.
May 2,	0001	Reactor power at 100%.
May 3,	1615	Reduced reactor power for turbine stop and governor valve testing.
	1955	Reactor power returned to 100%.
May 5,	2110	Commenced power reduction due to high differential temperature across main condenser.
	2200	Reactor power at 95%.
May 6,	1305	Reactor power reduced further to 85% to bump all four circulator pumps.
	1600	Reactor power returned to 100%.
May 10,	2000	Commenced power reduction for turbine valve testing.
May 11,	0001	Reactor power at 84%.
	0550	Power further reduced to 65% for removal of waterbox 118 from service for leak detection.
	1950	Unit returned to 100% power following repairs to leaking tube.
May 17,	1700	Reduced reactor power to 85% for stop and governor valve testing and bump circulator pumps.

MAY 1985 (Continued)

Unit 3

(continued)

Date	Time	Event
May 18,	0342	Unit returned to full power.
May 23,	0925	Failure of the controlatron decreased power to 96% due to the slight over-boration of the reactor coolant system.
	1120	Reactor power returned to 100%.
May 24,	1433	Reactor tripped due to low DNBR values as a result of subgroup 15 CEAs dropping into core.
May 25,	1645	Commenced reactor startup following repairs to fuse in hold bus DC logic power supply.
	1743	Entered Mode 2.
	1750	Reactor critical.
	1851	Entered Mode 1.
	2202	Synchronized to grid and applied block load.
May 26,	0515	Reactor power at 60%.
	2340	Reactor power at 100%.
May 31,	1038	Reduced reactor power to 85% due to COLSS out of service.
	1127	COLSS declared operable. Weekly turbine valve testing to be performed before returning to full power.
	2359	Unit in Mode 1 at 100% reactor power. Turbine load is 1089 MWe gross. Full power operations are planned.

2941u

REFUELING INFORMATION

DOCKET NO. 50-362

UNIT SONGS - 3

DATE 06/17/85

COMPLETED BY M. J. Farrell

TELEPHONE (714) 492-7700
Ext. 56739

1. Scheduled date for next refueling shutdown.

   August, 1985

2. Scheduled date for restart following refueling.

   December, 1985

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 regarding required boric acid volume and concentration (PCN Number 163) was submitted March 9, 1985.

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

2941u

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION
P.O. BOX 128
SAN CLEMENTE, CALIFORNIA 92672

J. G. HAYNES
STATION MANAGER

TELEPHONE
(714) 492-7700

June 17, 1985

Director
Office of Management Information and
Program Analysis
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Subject: Docket Nos. 50-361/50-362
Monthly Operating Reports for May 1985
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,

VG Haynes

Enclosures

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

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

IE24
1/1