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 50-362 San Onofre Nuclear Station, Unit 3, Southern Californ 05000362
 AUTH. NAME AUTHOR AFFILIATION
 SIACOR, E.R. Southern California Edison Co.
 MORGAN, H.E. Southern California Edison Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for Dec 1988 for San Onofre Nuclear
 Generating Station, Units 2 & 3. W/890113 ltr.

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-361
 UNIT SONGS - 2
 DATE January 13, 1989
 COMPLETED BY E. R. Siacor
 TELEPHONE (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: December 1988
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	744.00	8,784.00	47,113.00
12. Number Of Hours Reactor Was Critical	744.00	8,286.31	33,839.99
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	8,239.17	33,185.02
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,511,690.14	27,489,862.35	107,650,987.63
17. Gross Electrical Energy Generated (MWH)	868,379.00	9,447,711.50	36,434,173.00
18. Net Electrical Energy Generated (MWH)	828,863.00	9,002,741.00	34,521,487.35
19. Unit Service Factor	100.00%	93.80%	70.44%
20. Unit Availability Factor	100.00%	93.80%	70.44%
21. Unit Capacity Factor (Using MDC Net)	104.12%	95.79%	68.48%
22. Unit Capacity Factor (Using DER Net)	104.12%	95.79%	68.48%
23. Unit Forced Outage Rate	0.00%	0.70%	3.68%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	<u>NA</u>		

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
INITIAL ELECTRICITY
COMMERCIAL OPERATION

<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-361
 UNIT SONGS - 2
 DATE January 13, 1989
 COMPLETED BY E. R. Siacor
 TELEPHONE (714) 368-6223

MONTH December 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1118.08
2	1110.58
3	1117.54
4	1116.88
5	1116.58
6	1117.88
7	1117.83
8	1119.13
9	1110.04
10	1116.79
11	1116.79
12	1115.08
13	1114.17
14	1115.17
15	1116.71
16	1110.96

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	1114.17
18	1114.75
19	1111.92
20	1113.58
21	1112.83
22	1114.13
23	1113.54
24	1100.92
25	1113.88
26	1113.38
27	1116.00
28	1113.92
29	1113.33
30	1115.21
31	1104.21

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH DECEMBER 1988

DOCKET NO. 50-361
 UNIT NAME SONGS - 2
 DATE January 13, 1989
 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 ⁵	Cause & Corrective Action to Prevent Recurrence
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

¹F-Forced
S-Scheduled

²Reason:
 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)

³Method:
 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)

⁴IEEE Std 805-1984

⁵IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-361
UNIT SONGS - 2
DATE January 13, 1989
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

<u>Date</u>	<u>Time</u>	<u>Event</u>
December 1	0001	Unit is in Mode 1 at 100% reactor power. Turbine load at 1168 MWe gross.
December 31	2400	Unit is in Mode 1 at 100% reactor power. Turbine load at 1158 MWe gross.

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REFUELING INFORMATION

DOCKET NO. 50-361
UNIT _____ SONGS - 2
DATE January 13, 1989
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

MONTH: December 1988

1. Scheduled date for next refueling shutdown.
August 1989
2. Scheduled date for restart following refueling.
October 1989
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. 303
7. Licensed spent fuel storage capacity. 800
Intended change in spent fuel storage capacity. 1572, forecasted to occur during Cycle 5 (1990)
8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.
Approximately 1995 (refueling only)
Approximately 1993 (full off load capability)

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-362
 UNIT SONGS - 3
 DATE January 13, 1989
 COMPLETED BY E. R. Siacor
 TELEPHONE (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: December 1988
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	744.00	8,784.00	41,664.00
12. Number Of Hours Reactor Was Critical	744.00	5,930.77	29,678.74
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	5,715.99	28,590.19
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,469,278.01	18,927,384.53	88,528,780.35
17. Gross Electrical Energy Generated (MWH)	851,019.50	6,490,186.50	29,968,087.50
18. Net Electrical Energy Generated (MWH)	810,975.00	6,131,807.73	28,201,472.20
19. Unit Service Factor	100.00%	65.07%	68.62%
20. Unit Availability Factor	100.00%	65.07%	68.62%
21. Unit Capacity Factor (Using MDC Net)	100.93%	64.64%	62.67%
22. Unit Capacity Factor (Using DER Net)	100.93%	64.64%	62.67%
23. Unit Forced Outage Rate	0.00%	2.14%	8.14%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	<u>NA</u>		

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

NA

26. Units In Test Status (Prior To Commercial Operation):

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

	Forecast	Achieved
	<u>NA</u>	<u>NA</u>
	<u>NA</u>	<u>NA</u>
	<u>NA</u>	<u>NA</u>

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-362
 UNIT SONGS - 3
 DATE January 13, 1989
 COMPLETED BY E. R. Siacor
 TELEPHONE (714) 368-6223

MONTH December 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1116.17
2	1111.08
3	1115.38
4	1115.54
5	1116.33
6	1117.38
7	1115.96
8	1115.71
9	1111.50
10	1107.83
11	1081.04
12	1108.13
13	1112.17
14	1112.96
15	1113.54
16	1112.63

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	1116.04
18	1116.13
19	1116.00
20	1077.88
21	803.04
22	788.38
23	1058.04
24	1107.04
25	1121.63
26	1121.88
27	1122.21
28	1120.79
29	1121.54
30	1120.08
31	1096.63

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH DECEMBER 1988

DOCKET NO. 50-362
 UNIT NAME SONGS - 3
 DATE January 13, 1989
 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 ⁵	Cause & Corrective Action to Prevent Recurrence
44	881221	S	0.00	B	5	NA	KE	COND	Power reduction of 20% or greater to perform heat treating operations and condenser water box cleaning.

¹F-Forced
S-Scheduled

²Reason:
 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)

³Method:
 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)

⁴IEEE Std 805-1984

⁵IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO.	50-362
UNIT	SONGS - 3
DATE	January 13, 1989
COMPLETED BY	E. R. Siacor
TELEPHONE	(714) 368-6223

<u>Date</u>	<u>Time</u>	<u>Event</u>
December 1	0001	Unit is in Mode 1 at 100% reactor power. Turbine load at 1160 MWe gross.
December 11	1835	Core Operating Limit Supervisory System (COLLS) Computer and backup COLSS computers declared inoperable due to failing incore signal.
	1850	Commenced reduction to 80% reactor power due to the inoperability of the COLSS and the backup COLSS.
	1950	Reactor at 80% power.
	2100	Commenced reactor power increase following return to service of the COLSS and the backup COLSS.
December 12	0200	Reactor at 100% power.
December 20	1900	Commenced reduction to 80% reactor power to perform heat treating operations for the circulating water tunnels.
	2150	Reactor at 80% power.
December 21	0732	Commenced reduction to 75% reactor power to allow removal from service of circulating water pump P115 and to perform cleaning of condenser water boxes.
	0830	Reactor at 75% power.
December 23	0213	Commenced reactor power increase to 100% following completion of heat treating operations and condenser water box cleaning.
	0630	Reactor at 100% power.
December 31	2400	Unit is in Mode 1 at 100% power. Turbine load at 1168 MWe gross.

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REFUELING INFORMATION

DOCKET NO. 50-362
UNIT SONGS - 3
DATE January 13, 1989
COMPLETED BY E. R. Siacor
TELEPHONE (714) 368-6223

MONTH: December 1988

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. 268
7. Licensed spent fuel storage capacity. 800
Intended change in spent fuel storage capacity. 1572, forecasted to occur during Cycle 5 (1991)
8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.
Approximately 1996 (refueling only)
Approximately 1994 (full off load 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

January 13, 1989

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

Subject: Docket Nos. 50-361/50-362
Monthly Operating Reports for December 1988
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,
HE 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)

JEH
1/13