



*Southern California Edison Company*

23 PARKER STREET  
IRVINE, CALIFORNIA 92718

April 12, 1994

WALTER C. MARSH  
MANAGER OF NUCLEAR REGULATORY AFFAIRS

TELEPHONE  
(714) 454-4403

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

Gentlemen:

Subject: Docket Nos. 50-361 and 50-362  
Monthly Operating Reports for March 1994  
San Onofre Nuclear Generating Station, Units 2 and 3

Technical Specification 6.9.1.10 of Facility Operating Licenses NPF-10 and NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3, respectively, requires SCE to provide a Monthly Operating Report for each Unit, which includes: routine operating statistics and shutdown experience; all challenges to safety valves; any changes to the Offsite Dose Calculation Manual (ODCM); and any major changes to the radioactive waste treatment system. All covered activities are reported monthly, except for ODCM changes, which are reported within 90 days from the time the changes were made effective.

This letter transmits the March 1994 Monthly Operating Reports for Units 2 and 3, respectively. There were no challenges to safety valves, and no major changes to the Units 2 and 3 radioactive waste treatment systems during the reporting period.

If you require any additional information, please let me know.

Sincerely,

Enclosures

cc: L. J. Callan, Regional Administrator, NRC Region IV  
K. E. Perkins, Jr., Director, Walnut Creek Field Office,  
NRC Region IV  
M. B. Fields, NRC Project Manager, Units 2 and 3  
J. A. Sloan, Senior NRC Resident Inspector, San Onofre Units  
1, 2 & 3

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NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361  
 UNIT NAME: SONGS - 2  
 DATE: \_\_\_\_\_  
 COMPLETED BY: M. A. Robinson  
 TELEPHONE: (714) 368-9418

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: March 1994
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	2,160.00	93,097.00
12. Number Of Hours Reactor Was Critical	744.00	2,160.00	70,174.59
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	2,160.00	69,031.34
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,404,368.26	7,078,850.70	225,653,107.14
17. Gross Electrical Energy Generated (MWH)	834,611.50	2,441,125.50	76,528,913.50
18. Net Electrical Energy Generated (MWH)	795,016.00	2,327,754.00	72,582,452.80
19. Unit Service Factor	100.00%	100.00%	74.15%
20. Unit Availability Factor	100.00%	100.00%	74.15%
21. Unit Capacity Factor (Using MDC Net)	99.87%	100.72%	72.86%
22. Unit Capacity Factor (Using DER Net)	99.87%	100.72%	72.86%
23. Unit Forced Outage Rate	0.00%	0.00%	6.00%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>None</u>			
25. If Shutdown At End Of Report Period, Estimated Date of Startup:			<u>NA</u>
26. Units In Test Status (Prior To Commercial Operation):	Forecast		Achieved

INITIAL CRITICALITY	<u>NA</u>	<u>NA</u>
INITIAL ELECTRICITY	<u>NA</u>	<u>NA</u>
COMMERCIAL OPERATION	<u>NA</u>	<u>NA</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1074.46</u>
2	<u>1082.13</u>
3	<u>1081.83</u>
4	<u>1080.88</u>
5	<u>1071.50</u>
6	<u>1078.04</u>
7	<u>1077.25</u>
8	<u>1077.13</u>
9	<u>1078.29</u>
10	<u>1078.50</u>
11	<u>1080.83</u>
12	<u>1077.33</u>
13	<u>1084.21</u>
14	<u>1084.96</u>
15	<u>1082.08</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
16	<u>1078.83</u>
17	<u>1078.50</u>
18	<u>1078.17</u>
19	<u>1077.17</u>
20	<u>1076.63</u>
21	<u>1076.00</u>
22	<u>1076.21</u>
23	<u>1076.29</u>
24	<u>1076.25</u>
25	<u>1051.00</u>
26	<u>809.83</u>
27	<u>1039.83</u>
28	<u>1085.13</u>
29	<u>1085.83</u>
30	<u>1084.96</u>
31	<u>1085.63</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361  
 UNIT NAME: SONGS - 2  
 DATE: \_\_\_\_\_  
 COMPLETED BY: M. A. Robinson  
 TELEPHONE: (714) 368-9418

REPORT MONTH: March 1994

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	LER No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
84	03/26/94	S	N/A	B	5	N/A	KE	P	Power reduction for circulating water pump 2MP118 maintenance.

<sup>1</sup>F-Forced  
 S-Scheduled

<sup>2</sup>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)

<sup>3</sup>Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Continuation from Previous Month  
 5-Reduction in the Average Daily Power Level of more than 20% from the previous day  
 6-Other (Explain)

<sup>4</sup>IEEE Std 805-1984

<sup>5</sup>IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

<u>Date</u>	<u>Time</u>	<u>Event</u>
March	01 0001	Unit is in Mode 1, 98% reactor power, 1130 MWe.
March	25 2010	Commenced lowering reactor power to 80% for circulating water system heat treatment
	2300	Unit is at 80% reactor power, 885 MWe.
March	26 1020	Completed circulating water system heat treatment.
	1310	Commenced lowering reactor power to 75% to remove circulating water pump 2MP118 from service for electrical maintenance.
	1340	Unit is at 75% reactor power.
March	27 0010	Commenced raising reactor power to full power after completion of circulating water pump 2MP118 electrical maintenance.
	0810	Unit is at 98% reactor power, 1135 MWe.
March	31 2400	Unit is in Mode 1, 98% reactor power, 1140 MWe.

REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

1. Scheduled date for next refueling shutdown.

Cycle 8 refueling outage is forecast for January 15, 1995.

2. Scheduled date for restart following refueling.

Restart from Cycle 8 refueling outage is forecast for March 31, 1995.

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

Unknown at this time for Cycle 8 refueling.

What will these be?

NA

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

NA

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.

REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool.

662 Total Fuel Assemblies  
592 Unit 2 Spent Fuel Assemblies  
0 Unit 2 New Fuel Assemblies  
70 Unit 1 Spent Fuel Assemblies

7. Licensed spent fuel storage capacity. 1542

Intended change in spent fuel storage capacity. None

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

Approximately 2005 (full off-load capability)

NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: \_\_\_\_\_  
 COMPLETED BY: M. A. Robinson  
 TELEPHONE: (714) 368-9418

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: March 1994
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	<u>744.00</u>	<u>2,160.00</u>	<u>87,648.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>2,160.00</u>	<u>68,086.45</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>744.00</u>	<u>2,160.00</u>	<u>66,456.89</u>
15. Unit Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,403,396.03</u>	<u>6,915,662.24</u>	<u>213,587,451.96</u>
17. Gross Electrical Energy Generated (MWH)	<u>840,848.00</u>	<u>2,375,384.50</u>	<u>72,518,791.50</u>
18. Net Electrical Energy Generated (MWH)	<u>796,888.00</u>	<u>2,251,426.00</u>	<u>68,514,464.94</u>
19. Unit Service Factor	<u>100.00%</u>	<u>100.00%</u>	<u>75.82%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>100.00%</u>	<u>75.82%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>99.17%</u>	<u>96.51%</u>	<u>72.38%</u>
22. Unit Capacity Factor (Using DER Net)	<u>99.17%</u>	<u>96.51%</u>	<u>72.38%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>6.68%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>None</u>			
25. If Shutdown At End Of Report Period, Estimated Date of Startup:		<u>NA</u>	<u>NA</u>
26. Units In Test Status (Prior To Commercial Operation):	<u>Forecast</u>	<u>Achieved</u>	<u>Achieved</u>
INITIAL CRITICALITY		<u>NA</u>	<u>NA</u>
INITIAL ELECTRICITY		<u>NA</u>	<u>NA</u>
COMMERCIAL OPERATION		<u>NA</u>	<u>NA</u>



AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1069.13</u>
2	<u>1076.13</u>
3	<u>1075.63</u>
4	<u>1065.63</u>
5	<u>1059.75</u>
6	<u>1072.08</u>
7	<u>1073.33</u>
8	<u>1074.54</u>
9	<u>1074.50</u>
10	<u>1074.50</u>
11	<u>1073.42</u>
12	<u>1070.33</u>
13	<u>1069.79</u>
14	<u>1074.88</u>
15	<u>1072.96</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
16	<u>1071.04</u>
17	<u>1064.67</u>
18	<u>1072.58</u>
19	<u>1054.58</u>
20	<u>1072.79</u>
21	<u>1071.25</u>
22	<u>1071.67</u>
23	<u>1057.04</u>
24	<u>1075.54</u>
25	<u>1072.75</u>
26	<u>1070.92</u>
27	<u>1073.58</u>
28	<u>1076.17</u>
29	<u>1074.88</u>
30	<u>1073.83</u>
31	<u>1073.79</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: March 1994

DOCKET NO: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: \_\_\_\_\_  
 COMPLETED BY: M. A. Robinson  
 TELEPHONE: (714) 368-9418

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	LER No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
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There were no unit shutdowns or reductions in the Average Daily Power Level of more than 20% this reporting period.

<sup>1</sup>F-Forced  
<sup>1</sup>S-Scheduled

<sup>2</sup>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)

<sup>3</sup>Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Continuation from  
 Previous Month  
 5-Reduction in the Average  
 Daily Power Level of more  
 than 20% from the previous day  
 6-Other (Explain)

<sup>4</sup>IEEE Std 805-1984  
<sup>5</sup>IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

<u>Date</u>	<u>Time</u>	<u>Event</u>
March	01 0001	Unit is in Mode 1, 97.5% reactor power, 1123 MWe.
March	31 2400	Unit is in Mode 1, 98% reactor power, 1124 MWe.

REFUELING INFORMATION

DOCKET NO: 50-362  
UNIT NAME: SONS - 3  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

1. Scheduled date for next refueling shutdown.

Cycle 8 refueling outage is forecast for June 9, 1995.

2. Scheduled date for restart following refueling.

Restart from Cycle 8 refueling outage is forecast for August 18, 1995.

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

Unknown at this time for Cycle 8 refueling.

What will these be?

NA

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

NA

REFUELING INFORMATION

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: \_\_\_\_\_  
COMPLETED BY: M. A. Robinson  
TELEPHONE: (714) 368-9418

MONTH: March 1994

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.

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool.

710 Total Fuel Assemblies  
592 Unit 3 Spent Fuel Assemblies  
0 Unit 3 New Fuel Assemblies  
118 Unit 1 Spent Fuel Assemblies

7. Licensed spent fuel storage capacity. 1542

Intended change in spent fuel storage capacity. None

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

Approximately 2003 (full off-load capability).