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50-362 San Onofre Nuclear Station, Unit 3, Southern California      05000362  
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SUBJECT: Monthly operating repts for Jun 1991 for SONGS Units 2 & 3.  
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July 11, 1991

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

Subject: Docket Nos. 50-361 and 50-362  
Monthly Operating Reports for June 1991  
San Onofre Nuclear Generating Station, Units 2 and 3

Technical Specification 6.9.1.10 to Facility Operating Licenses NPF-10 and NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3, respectively, requires SCE 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 requires reporting within 90 days from the time the changes were made effective.

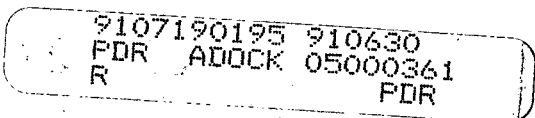
This letter transmits the June 1991 Monthly Operating Reports for Units 2 and 3, respectively. There were no challenges to safety valves, no changes to the ODCM, and no major changes to the Units 2 and 3 radioactive waste treatment systems during the reporting period.

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

Very truly yours,

Enclosures

cc: J. B. Martin (Regional Administrator, USNRC Region V)  
C. W. Caldwell (USNRC Senior Resident Inspector, Units 1, 2 and 3)



JE24/11

# NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

## OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: June 1991
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	<u>720.00</u>	<u>4,343.00</u>	<u>68,976.00</u>
12. Number Of Hours Reactor Was Critical	<u>720.00</u>	<u>3,551.88</u>	<u>50,311.44</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>720.00</u>	<u>3,525.33</u>	<u>49,327.75</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>2,397,045.31</u>	<u>11,102,404.35</u>	<u>160,586,389.07</u>
17. Gross Electrical Energy Generated (MWH)	<u>817,242.50</u>	<u>3,745,594.50</u>	<u>54,453,088.50</u>
18. Net Electrical Energy Generated (MWH)	<u>779,733.00</u>	<u>3,547,101.00</u>	<u>51,599,623.24</u>
19. Unit Service Factor	<u>100.00%</u>	<u>81.17%</u>	<u>71.51%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>81.17%</u>	<u>71.51%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>101.21%</u>	<u>76.33%</u>	<u>69.91%</u>
22. Unit Capacity Factor (Using DER Net)	<u>101.21%</u>	<u>76.33%</u>	<u>69.91%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>18.83%</u>	<u>7.21%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Cycle 6 Refueling outage scheduled to commence August 17, 1991, for a duration of 90 days.			
25. If Shutdown At End Of Report Period, Estimated Date of Startup:		<u>NA</u>	
26. Units In Test Status (Prior To Commercial Operation):		<u>Forecast</u>	<u>Achieved</u>

INITIAL CRITICALITY  
INITIAL ELECTRICITY  
COMMERCIAL OPERATION

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

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

MONTH: June 1991

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>1068.40</u>
2	<u>1091.21</u>
3	<u>1090.83</u>
4	<u>1092.33</u>
5	<u>1082.75</u>
6	<u>1090.71</u>
7	<u>1090.46</u>
8	<u>1094.38</u>
9	<u>1092.92</u>
10	<u>1091.29</u>
11	<u>1090.71</u>
12	<u>1087.13</u>
13	<u>1088.88</u>
14	<u>1086.71</u>
15	<u>1091.96</u>
16	<u>1092.25</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>1091.50</u>
18	<u>1090.46</u>
19	<u>1089.83</u>
20	<u>1087.83</u>
21	<u>1086.88</u>
22	<u>938.33</u>
23	<u>1066.21</u>
24	<u>1090.54</u>
25	<u>1091.67</u>
26	<u>1091.79</u>
27	<u>1071.42</u>
28	<u>1083.25</u>
29	<u>1091.96</u>
30	<u>1050.21</u>

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

REPORT MONTH: June 1991

DATE: July 11, 1991

COMPLETED BY: M. M. Farr

TELEPHONE: (714) 368-9787

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
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<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: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

<u>Date</u>	<u>Time</u>	<u>Event</u>
June 1	0001	Unit is in Mode 1 at 87% reactor power. Continuing reactor power increase to 100%.
	0645	Reactor at 99% power.
June 22	1010	Commenced reactor power decrease to 80% for circulating water system heat treatment.
	1205	Reactor at 80%.
June 23	0110	Commenced reactor power increase to 100% following completion of heat treating operations.
	0455	Reactor at 100% power.
June 28	0755	Unusual Event declared due to seismic activity
	0902	Unusual Event terminated.
June 30	2359	Unit is in Mode 1 at 100% reactor power. Turbine load at 1143 MWe gross.

## REFUELING INFORMATION

DOCKET NO:	<u>50-361</u>
UNIT NAME:	<u>SONGS - 2</u>
DATE:	<u>July 11, 1991</u>
COMPLETED BY:	<u>M. M. Farr</u>
TELEPHONE:	<u>(714) 368-9787</u>

MONTH: June 1991

1. Scheduled date for next refueling shutdown.

Cycle 6 refueling outage is forecast for August 1991.

2. Scheduled date for restart following refueling.

Restart from Cycle 6 refueling outage is forecast for November 1991.

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

Yes.

What will these be?

There are several License Amendments required to support work being performed during the Unit 2 Cycle 6 refueling outage. A summary of each of these items follows:

- A. In accordance with SCE's letter dated October 31, 1990, SCE committed to remove the autoclosure interlock on the shutdown cooling valves. This commitment was a result of SCE's evaluation in accordance with Generic Letter 88-17. Specifically, Surveillance Requirement 4.5.2.d.1 will be revised to reflect removal of the automatic isolation of the shutdown cooling system from the reactor coolant system (RCS) when RCS pressure is greater than or equal to 715 psia. NRC approval will be required prior to returning the shutdown cooling system to Operable status during the outage. The work will be done during the core offload from day 20 to day 36 of the outage. Based on an August 17 start date, NRC approval will be required by about September 22, 1991. As a result of a revised engineering calculation, a supplement to this proposed change will be submitted to revise the open permissive interlock setpoint for the isolation valves in Surveillance Requirement 4.5.2.d.1.
- B. A change to the Technical Specifications and an exemption from 10CFR50, Appendix J is required to decouple the 10 year Inservice Testing from the ten year Integrated Leak Rate Test (ILRT). Specifically, Surveillance Requirement 4.6.1.2.a will be revised to remove the requirement that the third test of each set of ILRTs be conducted during the shutdown for the 10-year plant inservice inspection. Received NRC approval on June 3, 1991

mor.jun/6

## REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

MONTH: June 1991

- C. NRC approval of changes to the UFSAR is requested to permit use of the shutdown cooling system as the primary means of spent fuel pool cooling. Use of the shutdown cooling system will be required when it is necessary to perform maintenance on certain components in the component cooling water system and the spent fuel pool cooling system. Currently, a test of leakage of the cross train isolation valves in the component cooling water system will be performed at the beginning of the outage. Received NRC approval on June 3, 1991.
  - D. A change to the Technical Specifications is requested to revise the snubber visual inspection frequency and criteria in accordance with Generic Letter 90-09. Specifically, Surveillance Requirements 4.7.6.b and 4.7.6.c will be revised in accordance with the Generic Letter. Received NRC approval on June 17, 1991.
  - E. A change to the Technical Specifications will be requested to permit a one time extension to the 24 month diesel generator surveillance requirements. Specifically, a one month extension will be requested for the manufacturer's recommended inspections required by Surveillance Requirement 4.8.1.1.2.d.1. This change is necessary to provide sufficient time to complete the inspections on one diesel generator before the other diesel generator becomes inoperable due to expiration of its 24 month surveillance. NRC approval will be required prior to September 21.
4. Scheduled date for submitting proposed licensing action and supporting information.
- A. Proposed Change on Autoclosure Interlock - Submitted April 15, 1991  
Supplement July 26, 1991
  - B. Proposed Change and Exemption of ILRT - Approved June 3, 1991
  - C. Approval of Shutdown Cooling for Spent Fuel Pool Cooling - Approved June 3, 1991
  - D. Proposed Change on Snubber Surveillances - Approved June 17, 1991
  - E. Proposed Change on Diesel Generator Surveillance - Submitted May 22, 1991

mor.jun/7



## REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

MONTH: June 1991

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. 554 (376 Unit 2 Spent  
Fuel Assemblies, 70  
Unit 1 Spent Fuel  
Assemblies, and 108  
Unit 2 New 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 2001 (full off load capability)

# NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

## OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: June 1991
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	720.00	4,343.00	63,527.00
12. Number Of Hours Reactor Was Critical	649.62	3,853.28	48,081.25
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	483.37	3,677.52	46,654.01
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	1,613,603.74	12,285,706.82	148,583,348.38
17. Gross Electrical Energy Generated (MWH)	539,178.00	4,166,039.50	50,417,722.00
18. Net Electrical Energy Generated (MWH)	503,774.00	3,950,366.97	47,575,276.30
19. Unit Service Factor	67.13%	84.68%	73.44%
20. Unit Availability Factor	67.13%	84.68%	73.44%
21. Unit Capacity Factor (Using MDC Net)	64.79%	84.22%	69.34%
22. Unit Capacity Factor (Using DER Net)	64.79%	84.22%	69.34%
23. Unit Forced Outage Rate	32.87%	15.32%	8.42%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	NA		
25. If Shutdown 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

NA	NA
NA	NA
NA	NA

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-361  
UNIT NAME: SONGS - 3  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

MONTH: June 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	825.50
12	1089.13
13	1091.08
14	1093.17
15	1097.25
16	1099.46

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	1100.25
18	1099.00
19	1097.54
20	1099.25
21	1095.79
22	1087.79
23	1088.04
24	1093.00
25	1092.92
26	1090.33
27	1089.46
28	1083.67
29	1090.79
30	816.21

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: June 1991DOCKET NO: 50-362UNIT NAME: SONGS - 3DATE: July 11, 1991COMPLETED BY: M. M. FarrTELEPHONE: (714) 368-9787

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
58	910517	F	236.63	A	1	NA	TJ	GEN	Continuation from previous month's outage.
59	910630	S	0.00	B	5	NA	KE	COND	Reduced reactor power to 80% to support circulating water system heat treatment.

<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: 50-362  
UNIT NAME: SONGS - 3  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

<u>Date</u>	<u>Time</u>	<u>Event</u>
June 1	0001	Unit is in Mode 3, 545 1/2 degrees F, 2250 psia, RCPs P-001 and P-004 running. Main generator stator leak forced outage in progress.
June 3	2057	Commenced reactor power startup.
	2142	Entered Mode 2.
	2223	Reactor is made critical.
June 4	0040	Reduced reactor power for low power physics testing.
	2230	Completed low power physics testing.
June 9	1345	Entered Mode 1.
June 10	2038	Unit synchronized to the grid.
June 11	1650	Reactor at 100% power.
June 28	0755	Unusual Event declared due to seismic activity.
	0902	Unusual Event terminated.
June 30	0115	Commenced reactor power decrease to 80% for circulating water system heat treatment.
	0320	Reactor at 80%.
	2359	Unit is in Mode 1 at 80% reactor power. Turbine load at 943 MWe gross. Circulating water pump P-115 off for bumping, investigating failure to start.

## REFUELING INFORMATION

DOCKET NO:	<u>50-362</u>
UNIT NAME:	<u>SONGS - 3</u>
DATE:	<u>July 11, 1991</u>
COMPLETED BY:	<u>M. M. Farr</u>
TELEPHONE:	<u>(714) 368-9787</u>

MONTH: June 1991

1. Scheduled date for next refueling shutdown.

Cycle 6 refueling outage is forecast for January 1992.

2. Scheduled date for restart following refueling.

Restart from Cycle 6 refueling outage is forecast for April 1992.

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

Yes.

What will these be?

The first four items listed in Unit 2 Refueling Information, Item 3, are also applicable to Unit 3.

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

Same dates as specified for Unit 2.

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 specifically determined for Cycle 6. Under evaluation.

## REFUELING INFORMATION

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: July 11, 1991  
COMPLETED BY: M. M. Farr  
TELEPHONE: (714) 368-9787

MONTH: June 1991

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 445 (376 Unit 3 Spent  
Fuel Assemblies and 69  
Unit 1 Spent Fuel  
Assemblies

7. Licensed spent fuel storage capacity. 1542 \*

Intended change in spent fuel storage capacity. None

\* Expanded from 800 to 1542 by License Amendment No. 77 - Facility modification is scheduled to be completed by September 1991.

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

Approximately 2003 (full off load capability)