

NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361
 UNIT NAME: SONGS - 2
 DATE: 8-15-91
 COMPLETED BY: M. M. Farr
 TELEPHONE: (714) 368-9787

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: July 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>744.00</u>	<u>5,087.00</u>	<u>69,720.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>4,295.88</u>	<u>51,055.44</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>744.00</u>	<u>4,269.33</u>	<u>50,071.75</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>2,494,115.06</u>	<u>13,596,519.41</u>	<u>163,080,504.13</u>
17. Gross Electrical Energy Generated (MWH)	<u>841,150.00</u>	<u>4,586,744.50</u>	<u>55,294,238.50</u>
18. Net Electrical Energy Generated (MWH)	<u>802,154.00</u>	<u>4,349,255.00</u>	<u>52,401,777.24</u>
19. Unit Service Factor	<u>100.00%</u>	<u>83.93%</u>	<u>71.82%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>83.93%</u>	<u>71.82%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>100.76%</u>	<u>79.90%</u>	<u>70.24%</u>
22. Unit Capacity Factor (Using DER Net)	<u>100.76%</u>	<u>79.90%</u>	<u>70.24%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>16.07%</u>	<u>7.11%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Cycle 6 Refueling outage scheduled to commence August 17, 1991, for a duration of 90 days.</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):	<u>Forecast 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>

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
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TELEPHONE: (714) 368-9787

MONTH: July 1991

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1138.38</u>
2	<u>1086.42</u>
3	<u>1088.00</u>
4	<u>1089.00</u>
5	<u>1075.29</u>
6	<u>1061.63</u>
7	<u>1084.71</u>
8	<u>1085.79</u>
9	<u>1084.79</u>
10	<u>1081.63</u>
11	<u>1082.08</u>
12	<u>1082.58</u>
13	<u>1074.25</u>
14	<u>945.71</u>
15	<u>1083.58</u>
16	<u>1085.96</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>1088.38</u>
18	<u>1086.33</u>
19	<u>1072.00</u>
20	<u>1070.42</u>
21	<u>1084.29</u>
22	<u>1085.71</u>
23	<u>1087.46</u>
24	<u>1086.04</u>
25	<u>1086.33</u>
26	<u>1081.79</u>
27	<u>1077.83</u>
28	<u>1084.71</u>
29	<u>1084.00</u>
30	<u>1081.67</u>
31	<u>1036.33</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

DATE: 8-15-91

REPORT MONTH: July 1991

COMPLETED BY: M. M. Farr

TELEPHONE: (714) 368-9787

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-Scheduled²Reason:
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 in the Average
Daily Power Level of more
than 20% from the previous day
6-Other (Explain)⁴IEEE Std 805-1984⁵IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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<u>Date</u>	<u>Time</u>	<u>Event</u>
July 1	0001	Unit is in Mode 1 at 100% reactor power. Turbine load at 1143 MWe gross.
July 13	2200	Commenced reactor power decrease to 80% to bump circulating water pumps.
July 14	0305	Reactor at 80% power.
	1316	Commenced reactor power increase to 100% following bumping of circulating water pumps.
	1754	Reactor at 100% power.
July 31	2359	Unit is in Mode 1 at 100% reactor power. Turbine load at 1132 MWe gross.

REFUELING INFORMATION

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MONTH: July 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.
- B. 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. Received NRC approval on July 12, 1991.

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REFUELING INFORMATION

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MONTH: July 1991

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

- A. Proposed Change on Autoclosure Interlock - Submitted April 15, 1991
- B. Proposed Change on Diesel Generator - Approved July 12, 1991
Surveillance

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: 8-15-91
 COMPLETED BY: M. M. Farr
 TELEPHONE: (714) 368-9787

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: July 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	<u>744.00</u>	<u>5,087.00</u>	<u>64,271.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>4,597.28</u>	<u>48,825.25</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>4,421.52</u>	<u>47,398.01</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>2,498,927.27</u>	<u>14,784,634.09</u>	<u>151,082,275.65</u>
17. Gross Electrical Energy Generated (MWH)	<u>856,117.00</u>	<u>5,022,156.50</u>	<u>51,273,839.00</u>
18. Net Electrical Energy Generated (MWH)	<u>816,150.00</u>	<u>4,766,516.97</u>	<u>48,391,426.30</u>
19. Unit Service Factor	<u>100.00%</u>	<u>86.92%</u>	<u>73.75%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>86.92%</u>	<u>73.75%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>101.57%</u>	<u>86.76%</u>	<u>69.72%</u>
22. Unit Capacity Factor (Using DER Net)	<u>101.57%</u>	<u>86.76%</u>	<u>69.72%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>13.08%</u>	<u>8.30%</u>
24. Shutdowns Scheduled Over Next 6 Months. (Type, Date, and Duration of Each):	<u>NA</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

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TELEPHONE: (714) 368-9787

MONTH: July 1991

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1107.92</u>
2	<u>1100.38</u>
3	<u>1100.38</u>
4	<u>1100.88</u>
5	<u>1095.13</u>
6	<u>1106.00</u>
7	<u>1105.96</u>
8	<u>1106.29</u>
9	<u>1104.83</u>
10	<u>1102.75</u>
11	<u>1101.50</u>
12	<u>1092.88</u>
13	<u>1099.63</u>
14	<u>1098.58</u>
15	<u>1098.33</u>
16	<u>1098.58</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>1099.21</u>
18	<u>1097.46</u>
19	<u>1094.79</u>
20	<u>1083.92</u>
21	<u>1096.75</u>
22	<u>1100.75</u>
23	<u>1103.67</u>
24	<u>1102.92</u>
25	<u>1100.79</u>
26	<u>1094.29</u>
27	<u>1097.58</u>
28	<u>1097.21</u>
29	<u>1096.13</u>
30	<u>1087.96</u>
31	<u>1032.83</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: July 1991DOCKET NO: 50-362UNIT NAME: SONGS - 3DATE: 8-15-91COMPLETED BY: M. M. FarrTELEPHONE: (714) 368-9787

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 in the Average
Daily Power Level of more
than 20% from the previous day
6-Other (Explain)

⁴IEEE Std 805-1984

⁵IEEE Std 803A-1983

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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-362
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<u>Date</u>	<u>Time</u>	<u>Event</u>
July 1	0001	Unit is in Mode 1 at 83% reactor power. Turbine load at 943 MWe gross. Completed circulating water system heat treatment and bumped circulating water pumps.
	0215	Commenced reactor power increase to 100%.
	0615	Reactor at 100% power.
July 30	0733	Small fire at Unit 3 Full Flow in the neutralization control panel. Fire was extinguished by Operator.
July 31	2359	Unit is in Mode 1 at 98% reactor power. Turbine load at 1130 MWe gross. Isothermal Temperature Coefficient test in progress.

REFUELING INFORMATION

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MONTH: July 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 item listed in Unit 2 Refueling Information, Item 3, is also applicable to Unit 3.

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

Same date 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
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MONTH: July 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)