

NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361  
 UNIT NAME: SONGS - 2  
 DATE: 9-15-92  
 COMPLETED BY: J. L. Darling  
 TELEPHONE: (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: August 1992
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	5,855.00	79,218.00
12. Number Of Hours Reactor Was Critical	717.95	5,313.11	57,805.36
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	712.43	5,286.57	56,728.12
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,344,157.34	17,536,835.53	185,058,870.96
17. Gross Electrical Energy Generated (MWH)	780,429.50	5,946,562.50	62,747,865.00
18. Net Electrical Energy Generated (MWH)	741,857.00	5,652,824.00	59,465,158.83
19. Unit Service Factor	95.76%	90.29%	71.58%
20. Unit Availability Factor	95.76%	90.29%	71.58%
21. Unit Capacity Factor (Using MDC Net)	93.19%	90.23%	70.13%
22. Unit Capacity Factor (Using DER Net)	93.19%	90.23%	70.13%
23. Unit Forced Outage Rate	4.24%	9.71%	7.20%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	None		
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	NA	NA	
INITIAL ELECTRICITY	NA	NA	
COMMERCIAL OPERATION	NA	NA	

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO: 50-361  
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 TELEPHONE: (714) 368-6223

MONTH: August 1992

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>0.00</u>	16	<u>1089.67</u>
2	<u>379.50</u>	17	<u>1089.54</u>
3	<u>949.71</u>	18	<u>1086.96</u>
4	<u>1074.29</u>	19	<u>1087.83</u>
5	<u>1061.63</u>	20	<u>1091.25</u>
6	<u>1081.04</u>	21	<u>1088.00</u>
7	<u>1071.79</u>	22	<u>1071.00</u>
8	<u>1035.92</u>	23	<u>1084.46</u>
9	<u>1088.67</u>	24	<u>1082.92</u>
10	<u>1032.33</u>	25	<u>1067.13</u>
11	<u>1003.13</u>	26	<u>929.96</u>
12	<u>1084.08</u>	27	<u>940.25</u>
13	<u>1091.54</u>	28	<u>939.33</u>
14	<u>1080.54</u>	29	<u>1043.17</u>
15	<u>1069.00</u>	30	<u>1086.63</u>
		31	<u>1044.67</u>

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

REPORT MONTH: August 1992DATE: 9-15-92COMPLETED BY: J. L. DarlingTELEPHONE: (714) 368-6223

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
76	920731	F	31.57	H	3	2-92-012	EA JC	XTP	Continued from previous month's outage.

<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  
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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 1	0001	Unit is in Mode 3, 543.5F, 2250 psia, following automatic Reactor trip on 7/31/92.
August 2	0124	Entered Mode 2.
	0203	Reactor is made critical.
	0345	Entered Mode 1.
	0734	Unit synchronized to the grid.
	0810	Commenced reactor power increase to 80% power for circulating water system heat treat.
	2335	Reactor power at 80% for heat treat.
August 3	1050	Commenced reactor power increase to 100% power following completion of heat treat.
	1340	Reactor at 100% power.
August 7	2100	Commenced reactor power decrease to 90% power to perform corrective maintenance on HP turbine valve control circuits.
	2300	Reactor power at 90%.
August 8	0950	Commenced reactor power increase to 100% following completion of turbine valve work.
	1205	Unit at 100% power.
August 10	2105	Commenced reactor power decrease to 50% power for containment entry to perform inspection of RCP 2P003 lower oil reservoir.
August 11	0055	Unit at 50% power.
	0135	Commenced reactor power increase to 100% power following completion of RCP 2P003 reservoir inspection.
	0550	unit at 100% power.

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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 25	2200	Commenced reactor power decrease to 90% for removal of Second and Third point heaters from service because of a steam leak on cascade drain line.
	2305	Unit at 90% power.
August 29	0202	Commenced reactor power increase to 100% following repairs to second and third point heater cascade drain line.
	0932	Unit at 100% power.
August 31	2400	Unit at 100% power, 1140 MWe.

REFUELING INFORMATION

DOCKET NO: 50-361  
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MONTH: August 1992

1. Scheduled date for next refueling shutdown.

Cycle 7 refueling outage is forecast for May 1993.

2. Scheduled date for restart following refueling.

Restart from Cycle 7 refueling outage is forecast for August 1993.

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

Not yet determined for Cycle 7.

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.

REFUELING INFORMATION

DOCKET NO: 50-361  
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MONTH: August 1992

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 554 (484 Unit 2 Spent  
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 2001 (full off load capability)

**NRC MONTHLY OPERATING REPORT**

DOCKET NO: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: 9-15-92  
 COMPLETED BY: J. L. Darling  
 TELEPHONE: (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: August 1992
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	5,855.00	73,799.00
12. Number Of Hours Reactor Was Critical	744.00	3,822.71	56,320.96
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	3,663.80	54,734.81
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,439,547.30	11,788,837.42	175,076,261.88
17. Gross Electrical Energy Generated (MWH)	824,083.00	3,955,442.00	59,355,467.00
18. Net Electrical Energy Generated (MWH)	783,661.00	3,718,655.07	56,036,762.36
19. Unit Service Factor	100.00%	62.58%	74.17%
20. Unit Availability Factor	100.00%	62.58%	74.17%
21. Unit Capacity Factor (Using MDC Net)	97.53%	58.81%	70.31%
22. Unit Capacity Factor (Using DER Net)	97.53%	58.81%	70.31%
23. Unit Forced Outage Rate	0.00%	8.83%	7.82%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	None		
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	NA	NA	
INITIAL ELECTRICITY	NA	NA	
COMMERCIAL OPERATION	NA	NA	



AVERAGE DAILY UNIT POWER LEVEL

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 TELEPHONE: (714) 368-6223

MONTH: August 1992

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>852.88</u>
2	<u>1087.42</u>
3	<u>1081.63</u>
4	<u>1081.25</u>
5	<u>1078.71</u>
6	<u>1078.67</u>
7	<u>1072.21</u>
8	<u>1068.25</u>
9	<u>1084.83</u>
10	<u>1082.54</u>
11	<u>1081.25</u>
12	<u>1083.96</u>
13	<u>1089.79</u>
14	<u>1052.67</u>
15	<u>791.04</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
16	<u>716.46</u>
17	<u>1025.08</u>
18	<u>1089.88</u>
19	<u>1092.17</u>
20	<u>1096.63</u>
21	<u>1081.25</u>
22	<u>1049.63</u>
23	<u>1095.25</u>
24	<u>1093.21</u>
25	<u>1091.33</u>
26	<u>1092.46</u>
27	<u>1092.17</u>
28	<u>1089.63</u>
29	<u>1096.79</u>
30	<u>1099.92</u>
31	<u>1083.63</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: August 1992

DOCKET NO: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: 9-15-92  
 COMPLETED BY: J. L. Darling  
 TELEPHONE: (714) 368-6223

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
68	920815	S	NA	B	5	NA	KE	COND	Reduced reactor power to 80% to perform circulating water system heat treatment and condenser water box cleaning. Reactor power reduced to 50% following heat treat to allow containment entry to install temporary oil addition system to RCP P001.

<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

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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 1	0001	Unit is in Mode 1 at 75% reactor power, Turbine load at 820 MWe. Power reduced for water box cleaning and Containment entry to inspect Pressurizer instrument line for leakage.
	0427	Containment entry completed, the Pressurizer instrument line leak identified to be on the canopy seal of root valve MR043.
	1516	Circulating water pump 3P-118 started after completion of water box cleaning.
	1612	Commenced reactor power increase to 100%.
	1905	Reactor at 100% power, 1130 MWe.
August 14	1200	Commenced Unit power reduction to reduce circulating water differential temperature to less than 20.0F.
	1500	Unit at 94.5% power, 1068 MWe. Circulating water differential temperature at 19.5F.
August 15	0230	Commenced reactor power decrease to 80% power in preparation for circulating water heat treat.
	0458	Unit at 80% reactor power.
	1355	Heat treat completed.
	1700	Reactor power decreased to 75% and Circulating water pump 3P-115 stopped for maintenance on start circuitry.
	2200	Commenced reactor power decrease to 50% in preparation for Containment entry to install temporary oil addition system on RCP P001.
August 16	0059	Circulating water pump 3P-115 started following completion of start circuitry maintenance.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-362  
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 DATE: 9-15-92  
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 TELEPHONE: (714) 368-6223

<u>Date</u>	<u>Time</u>	<u>Event</u>
August 16	0200	Reactor at 50% power.
	0540	Commenced reactor power increase to 100% following completion of containment entry.
August 17	0001	Unit at 89% power, 1030 MWe. Holding power because 20 degree circulating water differential temperature limit reached. Suspect circulating water gate 5 not fully closed.
	1235	Commenced reactor power increase to full power after completing repairs and closure of gate 5.
	1435	Unit at 98% reactor power, 1120 MWe. Unit load increase stopped circulating water differential temperature being reached.
August 18	0001	Reactor power increased to 99.4%, 1138 MWe. Circulating water differential temperature is less than 20 degrees.
August 21	2138	Commenced power reduction to 90% to perform HP valve testing and maintenance
	2238	Unit at 90% reactor power, 1000 MWe.
August 22	0916	Commenced reactor power increase to 100% following completion of HP valve testing and maintenance.
	1225	Unit at 100% reactor power, 1140 MWe.
August 31	2400	Unit at 100% reactor power, 1147 MWe.

REFUELING INFORMATION

DOCKET NO: 50-362  
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DATE: 9-15-92  
COMPLETED BY: J. L. Darling  
TELEPHONE: (714) 368-6223

MONTH: August 1992

1. Scheduled date for next refueling shutdown.

Cycle 7 refueling outage is forecast for September 1993.

2. Scheduled date for restart following refueling.

Restart from Cycle 7 refueling outage is forecast for December 1993.

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

Not yet determined for Cycle 7.

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.

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MONTH: August 1992

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 553 (484 Unit 3 Spent  
Fuel Assemblies, 69  
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)