

NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361
 UNIT NAME: SONGS - 2
 DATE: 2/16/93
 COMPLETED BY: J. L. Darling
 TELEPHONE: (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: January 1993
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	774.00	82,921.67
12. Number Of Hours Reactor Was Critical	744.00	774.00	61,478.36
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	744.00	60,401.27
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,511,527.41	2,511,527.41	197,331,375.73
17. Gross Electrical Energy Generated (MWH)	855,228.50	855,228.50	56,900,788.50
18. Net Electrical Energy Generated (MWH)	814,874.00	814,874.00	63,422,389.83
19. Unit Service Factor	100.00%	100.00%	72.84%
20. Unit Availability Factor	100.00%	100.00%	72.84%
21. Unit Capacity Factor (Using MDC Net)	102.36%	102.36%	71.48%
22. Unit Capacity Factor (Using DER Net)	102.36%	102.36%	71.48%
23. Unit Forced Outage Rate	0.00%	0.00%	6.79%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Refueling shutdown, June 5, 1993, Duration (77 days)</u>			

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: January 1993DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1096.08</u>
2	<u>1094.25</u>
3	<u>1097.88</u>
4	<u>1100.63</u>
5	<u>1097.88</u>
6	<u>1098.79</u>
7	<u>1097.88</u>
8	<u>1095.38</u>
9	<u>1074.50</u>
10	<u>1096.79</u>
11	<u>1095.71</u>
12	<u>1097.38</u>
13	<u>1097.29</u>
14	<u>1096.58</u>
15	<u>1090.54</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1095.38</u>
17	<u>1095.13</u>
18	<u>1093.96</u>
19	<u>1093.63</u>
20	<u>1096.46</u>
21	<u>1097.79</u>
22	<u>1089.13</u>
23	<u>1094.50</u>
24	<u>1096.29</u>
25	<u>1095.54</u>
26	<u>1097.79</u>
27	<u>1099.25</u>
28	<u>1097.21</u>
29	<u>1089.75</u>
30	<u>1097.25</u>
31	<u>1096.50</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

REPORT MONTH: January 1993

DATE: 2/16/93

COMPLETED BY: J. L. Darling

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
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There were no power reductions or shutdowns this reporting period.

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: 50-361
UNIT NAME: SONGS - 2
DATE: 2/16/93
COMPLETED BY: J. L. Darling
TELEPHONE: (714) 368-6223

<u>Date</u>	<u>Time</u>	<u>Event</u>
January 1	0001	Unit is in Mode 1, 100% reactor power, 1148 MWe.
January 31	2400	Unit is in Mode 1, 100% reactor power, 1146 MWe.

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REFUELING INFORMATION

DOCKET NO:	<u>50-361</u>
UNIT NAME:	<u>SONGS - 2</u>
DATE:	<u>2/16/93</u>
COMPLETED BY:	<u>J. L. Darling</u>
TELEPHONE:	<u>(714) 368-6223</u>

MONTH: January 1993

1. Scheduled date for next refueling shutdown.

Cycle 7 refueling outage is forecast for June 5 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?

Yes.

What will these be?

The following Technical Specification changes are desired in support of work being performed during the Unit 2 Cycle 7 refueling outage.

- A. A change to Technical Specification 3.9.7 has been requested to permit use of the cask pool cover to support refueling activities. This cover had previously been used to support the spent fuel pool reracking project. NRC approval of this change will be required prior to the start of the outage to support use of the cover during the outage.
- B. A change has been requested to Technical Specification 4.4.5.2.1 to allow a delay in performing an RCS inventory balance during plant transients. Although not required, NRC approval of this change is desired prior to startup from the Unit 2 Cycle 7 outage.
- C. A change will be requested to Technical Specification 3.7.1.1 to allow a tolerance on the main steam safety valves for the purpose of determining valve operability. Although not required, NRC approval of this change is desired to support the surveillance testing scheduled to be performed during the Unit 2 Cycle 7 outage.

REFUELING INFORMATION

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MONTH: January 1993

- D. A license Amendment and Technical Specification changes has been requested to permit implementation of a design change to use the containment spray pumps for shutdown cooling and spent fuel pool cooling. NRC approval of this change will be requested to permit use of the spray pumps for spent fuel pool cooling during the Unit 2 cycle 7 outage.
4. Scheduled date for submitting proposed licensing action and supporting information.
- A. Proposed Change on Cask Pool Cover Submitted December 24, 1992
B. Proposed Change on RCS Leakrate Submitted November 20, 1992
C. Proposed Change on MSSVs February 16, 1993
D. Proposed Change on Spray Pumps Submitted December 24, 1992
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 (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: 2/16/93
 COMPLETED BY: J. L. Darling
 TELEPHONE: (714) 368-6223

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: January 1993
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	774.00	77,472.00
12. Number Of Hours reactor Was Critical	687.97	687.97	59,887.73
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	564.50	664.50	58,270.56
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,195,836.93	2,195,836.93	186,829,911.17
17. Gross Electrical Energy Generated (MWH)	753,520.00	753,520.00	63,380,380.00
18. Net Electrical Energy Generated (MWH)	712,802.00	712,802.00	59,858,472.36
19. Unit Service Factor	89.31%	89.31%	75.21%
20. Unit Availability Factor	89.31%	89.31%	75.21%
21. Unit Capacity Factor (Using MDC Net)	88.71%	88.71%	71.54%
22. Unit Capacity Factor (Using DER Net)	88.71%	88.71%	71.54%
23. Unit Forced Outage Rate	10.69%	10.69%	7.46%
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

DOCKET NO: 50-361
UNIT NAME: SONGS - 3
DATE: 2/16/93
COMPLETED BY: J. L. Darling
TELEPHONE: (714) 368-6223

MONTH: January 1993DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	1106.25
2	1111.96
3	1111.13
4	1113.13
5	1111.92
6	1110.21
7	1112.88
8	1104.54
9	1111.50
10	1111.63
11	1108.58
12	1111.33
13	1110.71
14	1111.21
15	1055.21

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	545.67
17	0.00
18	0.00
19	0.00
20	601.25
21	1096.21
22	1095.88
23	1074.17
24	1101.75
25	1103.21
26	1104.50
27	1104.38
28	1104.79
29	1100.29
30	1091.21
31	1104.42

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: January 1993DOCKET NO: 50-362UNIT NAME: SONGS - 3DATE: 2/16/93COMPLETED BY: J. L. DarlingTELEPHONE: (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
71	150193	S	0.0	8	5	NA	KE	COND	Load reduction to perform circulating water system heat treat.
72	160193	F	79.5	B	3	3-93-001	EL	GEN	See note below

Note: Turbine generator trip was actuated on a Main Generator stator ground protection signal which in turn caused a Reactor trip on a loss of load signal. The ground was located on the B phase of the generator output conductor. The ground occurred when water from a heavy rain leaked into the enclosure housing the generator output conductors. The Main Generator terminal enclosure was resealed to prevent future rain water intrusion. The Unit was returned to service on January 20th.

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

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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<u>Date</u>	<u>Time</u>	<u>Event</u>
January 1	0001	Unit is in Mode 1 at 100% reactor power, 1159 MWe.
January 15	1600	Commenced Unit load reduction to 80% reactor power to perform circulating water heat treat.
	2055	Unit at 80% reactor power.
January 16	0710	Commenced Unit load reduction to 75% to clean condenser water boxes following completion of circulating water heat treat.
	0800	Unit at 75% reactor power.
	1640	Reactor trip on Loss of Load due to Main Generator trip on Stator ground. Unit in Mode 3.
January 18	2303	Commenced reactor startup. Cause of Main Generator stator ground was identified and corrected.
	2345	Entered Mode 2.
January 19	0042	Reactor critical.
	0237	Reactor power at 1% and holding for Main Feedwater pump testing.
	2030	Commenced increasing reactor power following completion of Main Feedwater pump testing.
	2110	Entered Mode 1.
January 20	0010	Unit synchronized to the Grid. Commenced increasing load to 100% power.
	2315	Unit at 97.5% power 1133 MWe. Turbine control valves full open.
January 31	2400	Unit is in Mode 1, 100% reactor power 1150 MWe.

REFUELING INFORMATION

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UNIT NAME: SONGS - 3
DATE: 2/16/93
COMPLETED BY: J. L. Darling
TELEPHONE: (714) 368-6223

MONTH: January 1993

1. Scheduled date for next refueling shutdown.

Cycle 7 refueling outage is forecast for October 1, 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?

Yes.

What will these be?

The following Technical Specification changes are desired in support of work being performed during the Unit 3 Cycle 7 refueling outage.

- A. A change to Technical Specification 3.9.7 has been requested to permit use of the cask pool cover to support refueling activities. This cover had previously been used to support the spent fuel pool reracking project. NRC approval of this change will be required prior to the start of the outage to support use of the cover during the outage.
- B. A change has been requested to Technical Specification 4.4.5.2.1 to allow a delay in performing an RCS inventory balance during plant transients. Although not required, NRC approval of this change is desired prior to startup from the Unit 3 Cycle 7 outage.
- C. A change will be requested to Technical Specification 3.7.1.1 to allow a tolerance on the main steam safety valves for the purpose of determining valve operability. Although not required, NRC approval of this change is desired to support the surveillance testing scheduled to be performed during the Unit 3 Cycle 7 outage.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: 7/16/93
COMPLETED BY: J. L. Darling
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MONTH: January 1993

- D. A license Amendment and Technical Specification changes has been requested to permit implementation of a design change to use the containment spray pumps for shutdown cooling and spent fuel pool cooling. MRC approval of this change will be requested to permit use of the spray pumps for spent fuel pool cooling during the Unit 3 cycle 7 outage.
4. Scheduled date for submitting proposed licensing action and supporting information.
- | | |
|---------------------------------------|-----------------------------|
| A. Proposed Change on Cask Pool Cover | Submitted December 24, 1992 |
| B. Proposed Change on RCS Leakrate | Submitted November 20, 1992 |
| C. Proposed Change on MSSVs | February 16, 1993 |
| D. Proposed Change on Spray Pumps | Submitted December 24, 1992 |
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. | <u>217</u> |
| b) In the spent fuel storage pool. | <u>574 (484 Unit 3 Spent</u>
<u>Fuel Assemblies, 90</u>
<u>Unit 1 Spent Fuel</u>
<u>Assemblies)</u> |
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)