

NRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: December 1995
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>8,760.00</u>	<u>108,457.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>6,613.50</u>	<u>83,388.19</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>6,198.97</u>	<u>81,830.31</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>2,440,983.00</u>	<u>20,260,158.90</u>	<u>267,638,014.75</u>
17. Gross Electrical Energy Generated (MWH)	<u>832,285.00</u>	<u>6,850,383.00</u>	<u>90,701,882.50</u>
18. Net Electrical Energy Generated (MWH)	<u>793,763.00</u>	<u>6,478,497.04</u>	<u>86,042,591.91</u>
19. Unit Service Factor	<u>100.00%</u>	<u>70.76%</u>	<u>75.45%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>70.76%</u>	<u>75.45%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>99.71%</u>	<u>69.12%</u>	<u>74.14%</u>
22. Unit Capacity Factor (Using DER Net)	<u>99.71%</u>	<u>69.12%</u>	<u>74.14%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>1.92%</u>	<u>5.24%</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>N/A</u>			
26. Units In Test Status (Prior To Commercial Operation):	Forecast	Achieved	

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: January 15 1996  
 COMPLETED BY: C. E. Williams  
 TELEPHONE: (714) 368-6707

MONTH: December 1995

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>576.50</u>
2	<u>895.88</u>
3	<u>1095.08</u>
4	<u>1099.17</u>
5	<u>1098.29</u>
6	<u>1100.46</u>
7	<u>1098.63</u>
8	<u>1080.92</u>
9	<u>1083.42</u>
10	<u>1083.38</u>
11	<u>1092.08</u>
12	<u>1096.79</u>
13	<u>1097.04</u>
14	<u>1097.67</u>
15	<u>1099.13</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

16	<u>1099.08</u>
17	<u>1101.50</u>
18	<u>1101.79</u>
19	<u>1101.67</u>
20	<u>1100.83</u>
21	<u>1100.96</u>
22	<u>1102.17</u>
23	<u>1103.00</u>
24	<u>1103.00</u>
25	<u>1102.79</u>
26	<u>1102.25</u>
27	<u>1102.25</u>
28	<u>1101.46</u>
29	<u>1100.21</u>
30	<u>1099.17</u>
31	<u>856.92</u>

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

REPORT MONTH: December 1995

DATE: January 15, 1996

COMPLETED BY: C. E. Williams

TELEPHONE: (714) 368-6707

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
92	12/31/95	F	NA	A	5	NA	AA	JC	During CEA monthly operability testing, a CEA was dropped, causing a shift in the azimuthal tilt. A power reduction was required to comply with the azimuthal tilt Technical Specification.

<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: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

Date	Time	Event
December 01	0001	Unit is in Mode 1, 56.6% reactor power, 596 MWE. Load increase in progress following unit shutdown to repair faulty reactor coolant pump moisture detectors.
December 02	0410	Reactor Power ascension stopped at 80% for circulating water system heat treatment.
	1303	Commenced reactor power increase following completion of circulating water system heat treatment.
December 03	0207	Reactor power at 98.5%, 1135 MWe.
	0350	Reactor Power at 99.7%, 1145 Mwe. First point heater bypass opened to maximize generation.
December 08	1415	Commenced power reduction to remove 4th and 5th point heaters from service for tube leak repair.
	1525	Reactor power at 92% power.
	1830	Reactor power at 99.5%, 1130 MWe, following removal of 4th and 5th point heaters from service.
December 11	1030	Reactor power at 99.8%, 1146 Mwe, following the tube repairs and return to service of fourth and fifth point heaters.
December 31	1457	Dropped CEA while performing CEA Monthly Operability Test.
	1500	Commenced 30% power reduction due to unrecoverable dropped CEA.
	1551	Reactor power at 69%, 760 MWe.
	1730	Commenced reactor power reduction to less than 49% reactor power per Azimuthal Tilt Technical Specification Action requirements.
	1824	Reactor power at 48.5%. Exited Azimuthal Tilt Technical Specification Action statement.

# SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-361  
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<u>Date</u>	<u>Time</u>	<u>Event</u>
December 31 (Continued)	1910	Dropped CEA restored to 148.5 inches withdrawn.
	2400	Unit is in Mode 1, 40% reactor power, 368 MWe.

REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

MONTH: December 1995

1. Scheduled date for next refueling shutdown:

Cycle 9 refueling outage is forecast for November 1996.

2. Scheduled date for restart following refueling:

Restart from Cycle 9 refueling outage is forecast for January 1997.

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

Unknown at this time.

What will these be?

Unknown at this time.

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

Unknown at this time.

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.

Unknown at this time.

# REFUELING INFORMATION

DOCKET NO: 50-361  
UNIT NAME: SONGS - 2  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

6. The number of fuel assemblies.

A. In the core. 217

B. In the spent fuel storage pool. 770 Total Fuel Assemblies  
700 Unit 2 Spent Fuel Assemblies  
0 Unit 2 New Fuel Assemblies  
70 Unit 1 Spent Fuel Assemblies

C. In the New Fuel Storage Racks Zero 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.

March 2005, assuming current fuel loading for all future cycles, and unit 1 fuel remains at current location.



NRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: December 1995
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>8,760.00</u>	<u>103,008.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>7,250.25</u>	<u>81,936.70</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>7,176.15</u>	<u>80,219.64</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>2,522,349.10</u>	<u>23,351,453.41</u>	<u>258,499,499.40</u>
17. Gross Electrical Energy Generated (MWH)	<u>857,103.50</u>	<u>7,926,793.50</u>	<u>87,759,470.00</u>
18. Net Electrical Energy Generated (MWH)	<u>813,420.00</u>	<u>7,498,452.63</u>	<u>82,939,363.56</u>
19. Unit Service Factor	<u>100.00%</u>	<u>81.92%</u>	<u>77.88%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>81.92%</u>	<u>77.88%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>101.23%</u>	<u>79.26%</u>	<u>74.55%</u>
22. Unit Capacity Factor (Using DER Net)	<u>101.23%</u>	<u>79.26%</u>	<u>74.55%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.59%</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>			
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: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: January 15, 1996  
 COMPLETED BY: C. E. Williams  
 TELEPHONE: (714) 368-6707

MONTH: December 1995

DAY LEVEL	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER (MWe-Net)
1	<u>1093.33</u>	16	<u>1095.67</u>
2	<u>1092.04</u>	17	<u>1095.83</u>
3	<u>1091.58</u>	18	<u>1095.96</u>
4	<u>1092.63</u>	19	<u>1094.21</u>
5	<u>1092.17</u>	20	<u>1094.17</u>
6	<u>1091.46</u>	21	<u>1094.67</u>
7	<u>1092.50</u>	22	<u>1096.29</u>
8	<u>1092.08</u>	23	<u>1093.38</u>
9	<u>1092.33</u>	24	<u>1096.63</u>
10	<u>1092.33</u>	25	<u>1095.38</u>
11	<u>1092.67</u>	26	<u>1095.21</u>
12	<u>1092.46</u>	27	<u>1092.92</u>
13	<u>1094.17</u>	28	<u>1089.29</u>
14	<u>1094.21</u>	29	<u>1089.88</u>
15	<u>1094.25</u>	30	<u>1089.88</u>
		31	<u>1092.96</u>

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1995

DOCKET NO: 50-362  
 UNIT NAME: SONGS - 3  
 DATE: January 15, 1996  
 COMPLETED BY: C. E. Williams  
 TELEPHONE: (714) 368-6834

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  
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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UNIT NAME: SONGS - 3  
DATE: January 15, 1996  
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<u>Date</u>	<u>Time</u>	<u>Event</u>
December 01	0000	Unit is in Mode 1, 99.7% reactor power, 1145 Mwe.
December 29	2345	Reduced turbine load to 1057 Mwe to perform turbine stop and governor valve testing.
December 30	0110	Unit at full power, 1142 Mwe, following completion of turbine stop and governor valve testing.
December 31	2400	Unit is in Mode 1, 99.6% reactor power, 1141 MWe.

# REFUELING INFORMATION

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6834

MONTH: December 1995

1. Scheduled date for next refueling shutdown.

Cycle 9 refueling outage is forecast for March 1997.

2. Scheduled date for restart following refueling.

Restart from Cycle 9 refueling outage is forecast for May 1997.

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

Unknown at this time.

What will these be?

Unknown at this time.

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

Unknown at this time.

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.

Unknown at this time.

# REFUELING INFORMATION

DOCKET NO: 50-362  
UNIT NAME: SONGS - 3  
DATE: January 15, 1996  
COMPLETED BY: C. E. Williams  
TELEPHONE: (714) 368-6707

6. The number of fuel assemblies.

A. In the core. 217

B. In the spent fuel storage pool. 818 Total Fuel Assemblies  
700 Unit 3 Spent Fuel Assemblies  
0 Unit 3 New Fuel Assemblies  
118 Unit 1 Spent Fuel Assemblies

C. In the New Fuel Storage Racks Zero Unit 3 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.

November 2003 (full off-load capability assuming current fuel loading for all future cycles, and unit 1 fuel remains where it is currently located).