

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

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: March 13, 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: February 1996
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>696.00</u>	<u>1,440.00</u>	<u>109,897.00</u>
12. Number Of Hours Reactor Was Critical	<u>696.00</u>	<u>1,440.00</u>	<u>84,828.19</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>696.00</u>	<u>1,440.00</u>	<u>83,270.31</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>2,359,616.90</u>	<u>4,800,599.90</u>	<u>272,438,614.65</u>
17. Gross Electrical Energy Generated (MWH)	<u>795,652.00</u>	<u>1,644,161.00</u>	<u>92,346,043.50</u>
18. Net Electrical Energy Generated (MWH)	<u>757,887.32</u>	<u>1,566,876.32</u>	<u>87,609,468.23</u>
19. Unit Service Factor	<u>100.00%</u>	<u>100.00%</u>	<u>75.77%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>100.00%</u>	<u>75.77%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>101.77%</u>	<u>101.69%</u>	<u>74.50%</u>
22. Unit Capacity Factor (Using DER Net)	<u>101.77%</u>	<u>101.69%</u>	<u>74.50%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.15%</u>

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: N/A

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: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: February 1996

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1097.39</u>
2	<u>1097.18</u>
3	<u>1082.81</u>
4	<u>1094.76</u>
5	<u>1096.06</u>
6	<u>1096.31</u>
7	<u>1096.60</u>
8	<u>1095.60</u>
9	<u>1090.64</u>
10	<u>1079.39</u>
11	<u>1094.81</u>
12	<u>1093.51</u>
13	<u>1094.93</u>
14	<u>1094.01</u>
15	<u>1094.10</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
16	<u>1095.76</u>
17	<u>863.64</u>
18	<u>1083.81</u>
19	<u>1102.10</u>
20	<u>1100.81</u>
21	<u>1102.47</u>
22	<u>1103.56</u>
23	<u>1103.81</u>
24	<u>1103.01</u>
25	<u>1103.22</u>
26	<u>1105.31</u>
27	<u>1105.89</u>
28	<u>1103.85</u>
29	<u>1103.35</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-361UNIT NAME: SONGS - 2REPORT MONTH: February 1996DATE: March 13, 1996COMPLETED BY: C. E. WilliamsTELEPHONE: (714) 368-6707

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
93	2/17/96	S	NA	B	5	NA	KE	COND	Heat treatment of circulating water sytem.

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 805-1984⁵IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
February 01	0001	Unit is in Mode 1, 99.5% reactor power, 1150 MWe.
February 03	0545	Unit load reduced to approximately 1070 MWe for high pressure turbine governor valve repair.
	0930	Completed high pressure turbine governor valve repair. Unit returned to full load, 1150 MWe.
February 10	0040	Unit at 1070 MWe following high pressure turbine governor valve failing closed.
	0530	Unit load restored to 1147 Mwe following the replacement of trip solenoid and servo valves for high pressure turbine governor valve, and high pressure turbine stop and governor valve testing.
February 17	0136	Commenced reactor power reduction to 80% for heat treatment of circulating water system intake.
	0343	Reactor Power at 80%, 867 MWe
	2040	Commenced reactor power increase to 95% at 4% per hour to monitor DNB, LPD, and ASI limits.
	2340	Holding reactor power at 92% to compile data.
February 18	0330	Commenced slow ramp power increase to full load per Energy Control Center.
	0900	Reactor power at 99.5%, 1152 MWe.
February 29	2400	Unit is in Mode 1, 100% reactor power, 1153 MWe.

REFUELING INFORMATION

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: February 1996

1. Scheduled date for next refueling shutdown:

Cycle 9 refueling outage is forecast for November 30, 1996.

2. Scheduled date for restart following refueling:

Restart from Cycle 9 refueling outage is forecast for February 3, 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: March 13, 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: March 13, 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: February 1996
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>696.00</u>	<u>1,440.00</u>	<u>104,448.00</u>
12. Number Of Hours Reactor Was Critical	<u>696.00</u>	<u>1,440.00</u>	<u>83,376.70</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>696.00</u>	<u>1,440.00</u>	<u>81,659.64</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>2,359,616.90</u>	<u>4,881,996.00</u>	<u>263,381,465.40</u>
17. Gross Electrical Energy Generated (MWH)	<u>794,249.00</u>	<u>1,648,188.00</u>	<u>89,407,658.00</u>
18. Net Electrical Energy Generated (MWH)	<u>755,027.32</u>	<u>1,566,542.32</u>	<u>84,505,905.88</u>
19. Unit Service Factor	<u>100.00%</u>	<u>100.00%</u>	<u>78.18%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>100.00%</u>	<u>78.18%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>100.45%</u>	<u>100.73%</u>	<u>74.91%</u>
22. Unit Capacity Factor (Using DER Net)	<u>100.45%</u>	<u>100.73%</u>	<u>74.91%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.50%</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: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: February 1996

DAY
LEVEL
AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1092.10</u>
2	<u>1090.35</u>
3	<u>852.85</u>
4	<u>1086.64</u>
5	<u>1094.85</u>
6	<u>1096.31</u>
7	<u>1096.60</u>
8	<u>1095.89</u>
9	<u>1094.93</u>
10	<u>1094.89</u>
11	<u>1095.31</u>
12	<u>1095.60</u>
13	<u>1095.81</u>
14	<u>1095.35</u>
15	<u>1095.06</u>

DAY
AVERAGE DAILY POWER
(MWe-Net)

16	<u>1081.26</u>
17	<u>1090.51</u>
18	<u>1090.93</u>
19	<u>1091.22</u>
20	<u>1092.81</u>
21	<u>1092.18</u>
22	<u>1092.97</u>
23	<u>1093.64</u>
24	<u>1094.43</u>
25	<u>1093.43</u>
26	<u>1093.06</u>
27	<u>1093.68</u>
28	<u>1092.56</u>
29	<u>1094.31</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: February 1996DOCKET NO: 50-362UNIT NAME: SONGS - 3DATE: March 13, 1996COMPLETED BY: C. E. WilliamsTELEPHONE: (714) 368-6707

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
89	2/3/96	S	NA	B	5	NA	KE	COND	Heat treatment of circulating water sytem.

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

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
February 01	0000	Unit is in Mode 1, 99.6% reactor power, 1142 MWe.
February 03	0040	Commenced power reduction to 80%, for circulating water system heat treatment.
	0245	Reactor Power at 80% for circulating water system heat treatment.
	2200	Commenced reactor power ascension to 100% following completion of circulating water system heat treatment.
February 04	0240	Reactor power at 99.5%, 1145 MWe.
February 16	2130	Reduced load to 1060 MWe to perform high pressure turbine stop and governor valve testing.
	2330	Restored unit to full load, 1142 MWe, following completion of high pressure turbine stop and governor valve testing.
February 29	2400	Unit is in Mode 1, 99.3% reactor power, 1142 MWe.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: March 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: February 1996

1. Scheduled date for next refueling shutdown.

Cycle 9 refueling outage is forecast for April 5, 1997.

2. Scheduled date for restart following refueling.

Restart from Cycle 9 refueling outage is forecast for June 9, 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: March 13, 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).