

ENCLOSURE 1

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

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: January 15, 1997
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 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>744.00</u>	<u>8,784.00</u>	<u>117,241.00</u>
12. Number Of Hours Reactor Was Critical	<u>0.00</u>	<u>8,016.72</u>	<u>91,404.91</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>0.00</u>	<u>8,016.68</u>	<u>89,846.99</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>0.00</u>	<u>26,608,748.85</u>	<u>294,246,763.60</u>
17. Gross Electrical Energy Generated (MWH)	<u>0.00</u>	<u>8,980,891.00</u>	<u>99,682,773.50</u>
18. Net Electrical Energy Generated (MWH)	<u>(1,740.26)</u>	<u>8,548,491.67</u>	<u>94,591,083.58</u>
19. Unit Service Factor	<u>0.00%</u>	<u>91.26%</u>	<u>76.63%</u>
20. Unit Availability Factor	<u>0.00%</u>	<u>91.26%</u>	<u>76.63%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.00%</u>	<u>90.95%</u>	<u>75.40%</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.00%</u>	<u>90.95%</u>	<u>75.40%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>4.79%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Cycle 9 Refueling Outage commenced November 30, 1996</u>			
25. If Shutdown At End Of Report Period, Estimated Date of Startup: <u>February 8, 1997</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: 50-361
UNIT NAME: SONGS - 2
DATE: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: December 1996

DAY AVERAGE DAILY POWER LEVEL
(Mwe-Net)

1	<u>0.00</u>
2	<u>0.00</u>
3	<u>0.00</u>
4	<u>0.00</u>
5	<u>0.00</u>
6	<u>0.00</u>
7	<u>0.00</u>
8	<u>0.00</u>
9	<u>0.00</u>
10	<u>0.00</u>
11	<u>0.00</u>
12	<u>0.00</u>
13	<u>0.00</u>
14	<u>0.00</u>
15	<u>0.00</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>0.00</u>
17	<u>0.00</u>
18	<u>0.00</u>
19	<u>0.00</u>
20	<u>0.00</u>
21	<u>0.00</u>
22	<u>0.00</u>
23	<u>0.00</u>
24	<u>0.00</u>
25	<u>0.00</u>
26	<u>0.00</u>
27	<u>0.00</u>
28	<u>0.00</u>
29	<u>0.00</u>
30	<u>0.00</u>
31	<u>0.00</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1996DOCKET NO: 50-361UNIT NAME: SONGS - 2DATE: January 15, 1997COMPLETED 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
101	11/30/96	S	744.0	C	2	NA	N/A	N/A	Cycle 9 Refueling Outage

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: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
December 01	0000	Unit is in Mode 4, cooling down for entry into Mode 5 for Cycle 9 refueling outage.
	0315	Unit entered Mode 5
	1416	Reactor Coolant Pump 2P003 stopped.
	2111	Reactor Coolant Pump 2P001 stopped, all RCPs stopped.
December 02	1205	Collapsed Pressurizer bubble, RCS is solid.
December 04	1205	Commenced RCS draindown to 26 inches in the hot leg to install Steam Generator Nozzle Dams.
December 05	0145	Completed RCS draindown at 26 inches in the hot leg.
	1657	Commenced fill of RCS after installation of Steam Generator Nozzle Dams.
	2150	Completed fill of RCS at approximately one-half foot below reactor vessel flange.
December 06	0929	Unit entered Mode 6.
December 08	0515	Reactor Vessel Head removed.
December 10	0117	Refueling Cavity filled to 23 feet, six inches above reactor vessel flange.
December 12	0221	Commenced core off-load.
December 16	1132	Completed core off-load.
December 31	2400	Unit is defueled, in the 31st day of the Cycle 9 refueling.

REFUELING INFORMATION

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: December 1996

1. Scheduled date for next refueling shutdown:

Cycle 9 refueling outage commenced November 30, 1996.

2. Scheduled date for restart following refueling:

Restart from Cycle 9 refueling outage is forecast for February 8, 1997.

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

No.

What will these be?

N/A

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

N/A

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.

Increase in fuel enrichment.

REFUELING INFORMATION (continued)

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

6. The number of fuel assemblies.

A. In the core. 0

B. In the spent fuel storage pool. 1087 Total Fuel Assemblies
917 Unit 2 Spent Fuel Assemblies
100 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.

January 2006 (assuming 22 month fuel cycles for all future cycles, and Unit 1 fuel remains where it is currently located).

ENCLOSURE 2

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

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: January 15, 1997
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 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>744.00</u>	<u>8,784.00</u>	<u>111,792.00</u>
12. Number Of Hours Reactor Was Critical	<u>744.00</u>	<u>8,355.48</u>	<u>90,292.18</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>8,311.67</u>	<u>88,531.31</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>2,497,044.24</u>	<u>27,639,982.80</u>	<u>286,139,482.20</u>
17. Gross Electrical Energy Generated (MWH)	<u>846,630.00</u>	<u>9,321,737.50</u>	<u>97,081,207.50</u>
18. Net Electrical Energy Generated (MWH)	<u>804,454.74</u>	<u>8,838,647.32</u>	<u>91,778,010.88</u>
19. Unit Service Factor	<u>100.00%</u>	<u>94.62%</u>	<u>79.19%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>94.62%</u>	<u>79.19%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>100.12%</u>	<u>93.17%</u>	<u>76.02%</u>
22. Unit Capacity Factor (Using DER Net)	<u>100.12%</u>	<u>93.17%</u>	<u>76.02%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.10%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Refueling shutdown, April 5, 1997, 70 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): 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, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: December 1996

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1084.18</u>	16	<u>1079.89</u>
2	<u>1083.93</u>	17	<u>1081.48</u>
3	<u>1084.31</u>	18	<u>1083.68</u>
4	<u>1083.81</u>	19	<u>1083.14</u>
5	<u>1081.77</u>	20	<u>1082.39</u>
6	<u>1081.89</u>	21	<u>1074.27</u>
7	<u>1080.81</u>	22	<u>1082.39</u>
8	<u>1082.23</u>	23	<u>1081.39</u>
9	<u>1081.98</u>	24	<u>1080.93</u>
10	<u>1081.93</u>	25	<u>1081.64</u>
11	<u>1080.85</u>	26	<u>1081.31</u>
12	<u>1081.81</u>	27	<u>1079.73</u>
13	<u>1080.06</u>	28	<u>1079.68</u>
14	<u>1079.14</u>	29	<u>1080.43</u>
15	<u>1079.10</u>	30	<u>1079.68</u>
		31	<u>1079.10</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1996

DOCKET NO: 50-362

UNIT NAME: SONGS - 3

DATE: January 15, 1997

COMPLETED BY: C. E. Williams

TELEPHONE: (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
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There were no shutdowns or power reductions of greater than 20% this month.

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: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
December 01	0000	Unit is in Mode 1, reactor power 99.4%, 1133 Mwe.
December 21	0117	Commenced downpower to 1010 Mwe to perform HP turbine stop and governor valve testing.
	0505	Completed HP turbine stop and governor valve testing, turbine load restored to 1131 MWe.
December 31	2400	Unit is in Mode 1, reactor power 99%, 1129 MWe.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: January 15, 1997
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: December 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 14, 1997.

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

Yes

What will these be?

1. Revision to test interval of load sequencing relays.
2. Appendix J Option B Technical Specification.

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

- | | |
|-----------------------------------|-------------------|
| 1. PCN 454 Load Sequencing Relays | Submitted 5/29/96 |
| 2. PCN 361 Appendix J Option B | Submitted 5/30/96 |

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.

Increase in fuel enrichment.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: January 15, 1997
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.

May 2006 (full off-load capability assuming 22 month fuel cycles for all future cycles, and Unit 1 fuel remains where it is currently located).