

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-361
UNIT SONGS - 2
DATE September 16, 1985
COMPLETED BY R. J. Maisel
TELEPHONE (714) 492-7700
Ext. 86657

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: August 1985
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	5,831.00	17,880.00
12. Number Of Hours Reactor Was Critical	701.20	3,115.69	10,760.91
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	687.67	3,065.06	10,558.13
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,284,374.50	9,728,039.50	34,000,742.80
17. Gross Electrical Energy Generated (MWH)	751,359.50	3,246,059.50	11,456,368.00
18. Net Electrical Energy Generated (MWH)	714,167.00	3,047,879.00	10,812,827.00
19. Unit Service Factor	92.43%	52.56%	59.05%
20. Unit Availability Factor	92.43%	52.56%	59.05%
21. Unit Capacity Factor (Using MDC Net)	89.71%	48.85%	56.52%
22. Unit Capacity Factor (Using DER Net)	89.71%	48.85%	56.52%
23. Unit Forced Outage Rate	7.57%	5.42%	4.39%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	N/A		

25. If Shut Down At End Of Report Period, Estimated Date of Startup: NA
26. Units In Test Status (Prior To Commercial Operation): Forecast Achieved

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

NA	NA
NA	NA
NA	NA

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-361

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MONTH August 1985

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	685.25
2	0.00
3	719.25
4	1086.96
5	1040.58
6	1007.25
7	1003.50
8	993.38
9	1006.13
10	1024.21
11	1021.42
12	1061.67
13	1080.00
14	1062.08
15	1085.96
16	1071.71

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	1059.79
18	1075.92
19	1087.42
20	620.04
21	173.50
22	1058.63
23	1080.79
24	1084.63
25	1087.92
26	1088.92
27	1088.58
28	1091.29
29	1091.75
30	1074.71
31	1089.13

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH AUGUST 1985

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No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down ³ Reactor	LER No.	System ⁴ Code	Component ⁴ Code	Cause & Corrective Action to Prevent Recurrence
16	850801	F	32.68	A	3	2-85-041	EE	INVT	A voltage transient of unknown origin occurred on Phase 'A' of the non-IE uninterruptable power supply which de-energized two Control Element Drive Mechanism (CEDM) auxiliary relays associated with the turbine trip logic, which tripped the turbine and the reactor. As corrective action, a design change has been implemented which re-arranged the auxiliary relays, so that a single phase voltage transient will not cause a turbine trip.
17	850820	F	23.65	G	3	2-85-018	JC	CPU	Reactor and turbine trip due to spurious penalty factor generated by Control Element Assembly Calculator (CEAC) number 1 during surveillance testing. As corrective action to prevent recurrence changes will be made in the surveillance procedure.

1
F-Forced
S-Scheduled

2
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)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Continuation from
Previous Month
5-Reduction of 20%
or greater in the
past 24 hours
6-Other (Explain)

4
IEEE Std 803-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 1	0001	Unit in Mode 1 at 100% reactor power. Full power operations are planned.
August 1	1532	Turbine/reactor trip occurred due to a transient low voltage condition on a single phase of Non-1E uninterruptable power supply bus.
August 2	1355	Entered Mode 2.
August 2	1410	Reactor critical.
August 2	2023	Entered Mode 1.
August 3	0013	Unit synchronized to grid.
August 4	0001	Unit returned to 100% reactor power.
August 8	1955	Initiated power reduction to 88% to bump main saltwater circulating pumps to lower differential pressure across condenser water boxes.
August 9	0430	Unit returned to 100% reactor power.
August 14	1905	Initiated power reduction to 85% to bump main saltwater circulating pumps.
August 15	0115	Unit returned to 100% reactor power.
August 17	1115	Initiated power reduction to 95% for corrective maintenance on high pressure turbine governor valve 2UV2200B.
August 18	0540	Unit returned to 100% reactor power.
August 20	1405	Reactor and turbine trips occurred due to spurious penalty factors generated while performing CEAC No. 1 31-day surveillance and associated troubleshooting activities.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH
(Continued)

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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 21	0958	Entered Mode 2.
August 21	1015	Reactor critical.
August 21	1136	Entered Mode 1.
August 21	1344	Unit synchronized to grid.
August 22	0640	Unit returned to 100% reactor power.
August 31	2359	Unit in Mode 1 at 100% reactor power. Full power operations are planned.

REFUELING INFORMATION

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1. Scheduled date for next refueling shutdown.

April 1986

2. Scheduled date for restart following refueling.

July 1986

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

Not yet determined.

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.

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 72

7. Licensed spent fuel storage capacity. 800

Intended change in spent fuel storage capacity. NA

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

Approximately 1997.

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-362
UNIT NAME SONGS - 3
DATE September 16, 1985
COMPLETED BY R. J. Maisel
TELEPHONE (714) 492-7700
Ext. 86657

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: August 1985
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):
10. Reasons For Restrictions, If Any:

NA

NA

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744.00	5,831.00	12,431.00
12. Number Of Hours Reactor Was Critical	744.00	4,457.84	8,878.01
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	744.00	4,377.50	8,483.45
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,379,092.40	11,376,091.80	24,437,680.24
17. Gross Electrical Energy Generated (MWH)	420,218.50	3,784,835.50	8,151,667.00
18. Net Electrical Energy Generated (MWH)	382,636.00	3,529,488.00	7,629,818.00
19. Unit Service Factor	100.00%	75.07%	68.24%
20. Unit Availability Factor	100.00%	75.07%	68.24%
21. Unit Capacity Factor (Using MDC Net)	47.62%	56.05%	56.83%
22. Unit Capacity Factor (Using DER Net)	47.62%	56.05%	56.83%
23. Unit Forced Outage Rate	0%	23.78%	14.59%
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			
Refueling, September 1985, 95 days duration			

25. If Shut Down At End Of Report Period, Estimated Date of Startup: NA
26. Units In Test Status (Prior To Commercial Operation): Forecast Achieved

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

NA	NA
NA	NA
NA	NA

AVERAGE DAILY UNIT POWER LEVEL

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MONTH August 1985

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	513.17
2	591.38
3	514.58
4	514.63
5	518.58
6	522.42
7	513.71
8	520.29
9	516.33
10	512.92
11	508.46
12	508.67
13	514.42
14	518.92
15	518.83
16	517.54

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	517.17
18	518.71
19	515.42
20	512.42
21	509.75
22	513.29
23	513.83
24	525.08
25	511.96
26	510.17
27	508.79
28	511.54
29	514.00
30	513.04
31	506.50

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No.	Date	Type	Duration (Hours)	Reason	2	Method of Shutting Down	3	LER No.	System Code	Component Code	Cause & Corrective Action to Prevent Recurrence

Not Applicable

1	F-Forced S-Scheduled	2	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)	3	Method: 1-Manual 2-Automatic Scram. 3-Continuation from Previous Month 4-Reduction of 20% or greater in the past 24 hours 5-Other (Explain)	4	IEEE Std 803-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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<u>Date</u>	<u>Time</u>	<u>Event</u>
August 1	0001	Unit in Mode 1 at 55% reactor power.
August 31	2359	Unit in Mode 1 at 55% reactor power. Commencement of refueling outage planned for September 20, 1985.

REFUELING INFORMATION

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1. Scheduled date for next refueling shutdown.

September 1985

2. Scheduled date for restart following refueling.

December 1985

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

Yes

What will these be?

Proposed Technical Specification change regarding required boric acid volume and concentration (PCN 163)

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

Proposed Technical Specification change regarding required boric acid volume and concentration (PCN 163) was submitted March 9, 1985.

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. Reload analysis is the same as Unit 2.

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 0

7. Licensed spent fuel storage capacity. 800

Intended change in spent fuel storage capacity. NA

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

N/A