



SOUTHERN CALIFORNIA
EDISON

An EDISON INTERNATIONAL Company

October 15, 1996

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Subject: Docket Nos. 50-361 and 50-362
Monthly Operating Reports for September 1996
San Onofre Nuclear Generating Station, Units 2 and 3

Technical Specification 5.7.1.4 of Facility Operating Licenses NPF-10 and NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3, respectively, requires Edison to provide a Monthly Operating Report for each Unit, which includes: operating statistics and shutdown experience, including documentation of all challenges to pressurizer safety valves. This letter transmits the September 1996 Monthly Operating Reports for Units 2 and 3. There were no challenges to the pressurizer safety valves.

If you require any additional information, please let me know.

Sincerely,

Gregory T. Gibson
Manager, Compliance

Enclosures

cc: L. J. Callan, Regional Administrator, NRC Region IV
J. E. Dyer, Director, Division of Reactor Projects, NRC
Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office, NRC
Region IV
M. B. Fields, NRC Project Manager, Units 2 and 3
J. A. Sloan, Senior NRC Resident Inspector, San Onofre Units
2 & 3

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

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: October 11, 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: September 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>720.00</u>	<u>6,575.00</u>	<u>115,032.00</u>
12. Number Of Hours Reactor Was Critical	<u>720.00</u>	<u>6,575.00</u>	<u>89,963.19</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>720.00</u>	<u>6,575.00</u>	<u>88,405.31</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>2,401,439.08</u>	<u>21,814,251.41</u>	<u>289,452,266.16</u>
17. Gross Electrical Energy Generated (MWH)	<u>804,012.00</u>	<u>7,365,065.50</u>	<u>98,066,948.00</u>
18. Net Electrical Energy Generated (MWH)	<u>764,969.94</u>	<u>7,012,181.78</u>	<u>93,054,773.69</u>
19. Unit Service Factor	<u>100.00%</u>	<u>100.00%</u>	<u>76.85%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>100.00%</u>	<u>76.85%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>99.30%</u>	<u>99.67%</u>	<u>75.60%</u>
22. Unit Capacity Factor (Using DER Net)	<u>99.30%</u>	<u>99.67%</u>	<u>75.60%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>4.87%</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	<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: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: September 1996

DAY	AVERAGE DAILY POWER LEVEL (Mwe-Net)
1	<u>1078.11</u>
2	<u>1074.90</u>
3	<u>1076.69</u>
4	<u>1077.40</u>
5	<u>1075.77</u>
6	<u>1074.57</u>
7	<u>1041.69</u>
8	<u>1053.82</u>
9	<u>1057.94</u>
10	<u>1063.23</u>
11	<u>1065.19</u>
12	<u>1063.82</u>
13	<u>1033.19</u>
14	<u>1047.19</u>
15	<u>1082.52</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
16	<u>1079.44</u>
17	<u>1079.40</u>
18	<u>1079.07</u>
19	<u>1079.23</u>
20	<u>1042.89</u>
21	<u>829.27</u>
22	<u>1077.82</u>
23	<u>1083.36</u>
24	<u>1083.02</u>
25	<u>1080.61</u>
26	<u>1081.07</u>
27	<u>1050.28</u>
28	<u>1087.32</u>
29	<u>1088.07</u>
30	<u>1086.90</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: September 1996DOCKET NO: 50-361UNIT NAME: SONGS - 2DATE: October 11, 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
99	9/20/96	S	NA	B	5	NA	KE	COND	Condenser waterbox cleaning.

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: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
September 01	0000	Unit is in Mode 1, reactor power 99.9%, 1129 MWe.
September 07	1010	Reduced turbine load to 1117 MWe to reduce circulating water system temperature difference.
	1120	Reduced turbine load to 1112 MWe to reduce circulating water system temperature difference.
	1538	Reduced turbine load to 1055 MWe to reduce circulating water system temperature difference. Reactor power 95%.
September 08	0110	Increased turbine load to 1122 MWe. Reactor Power at 99.5%.
	1200	Reduced turbine load to 1090 MWe to reduce circulating water system temperature difference.
September 13	2000	Commenced downpower to 80% to bump circulating water system pumps.
	2300	Reactor power 80%, 895 MWe.
September 14	0120	Commenced raising reactor power after bumping circulating water system pumps.
	0602	Reactor power 99%, 1138 MWe.
September 20	1953	Commenced downpower to 75% reactor power to clean condenser waterbox.
	2248	Reactor power at 75%, 793 MWe.
September 21	1445	Commenced raising reactor power following completion of condenser waterbox cleaning.
	2114	Reactor power 100%, 1125 MWe.
September 26	2315	First point heater removed from service for repair of level controller. Reactor power decreased to 97.1%, 1100 MWe.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH (continued)

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

September 27	2300	First point heater returned to service. Reactor power 100%, 1135 MWe.
September 30	2400	Reactor power at 100%, 1135 MWe.

REFUELING INFORMATION

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: September 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?

Yes.

What will these be?

1. Revision to test interval of load sequencing relays.
2. Appendix J Option B Technical Specification.
3. Increase in Safety Injection Tank Boron Concentration.
4. Technical Specification Clarifications
5. Increase in Low Pressure Safety Injection AOT

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 |
| 3. PCN 465 Safety Injection Tank Boron | Submitted 5/29/96 |
| 4. PCN 472 Technical Specification clarifications | Submitted 10/11/96 |
| 5. PCN 452 Low Pressure Safety Injection AOT | Submitted 11/8/95 |

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: October 11, 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.

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

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

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: October 11, 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: September 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>720.00</u>	<u>6,575.00</u>	<u>109,583.00</u>
12. Number Of Hours Reactor Was Critical	<u>555.98</u>	<u>6,410.98</u>	<u>2,347.68</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>555.70</u>	<u>6,383.27</u>	<u>86,602.91</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>1,846,522.27</u>	<u>21,260,961.93</u>	<u>279,760,461.33</u>
17. Gross Electrical Energy Generated (MWH)	<u>618,169.50</u>	<u>7,161,520.00</u>	<u>94,920,990.00</u>
18. Net Electrical Energy Generated (MWH)	<u>582,969.94</u>	<u>6,791,661.43</u>	<u>89,731,024.99</u>
19. Unit Service Factor	<u>77.18%</u>	<u>97.08%</u>	<u>79.03%</u>
20. Unit Availability Factor	<u>77.18%</u>	<u>97.08%</u>	<u>79.03%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>74.97%</u>	<u>95.64%</u>	<u>75.82%</u>
22. Unit Capacity Factor (Using DER Net)	<u>74.97%</u>	<u>95.64%</u>	<u>75.82%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.20%</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>October 11, 1996</u>			
26. Units In Test Status (Prior To Commercial Operation): <u>Forecast</u> <u>Achieved</u>			

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: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: September 1996

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>1063.07</u>
2	<u>1058.69</u>
3	<u>1062.65</u>
4	<u>1061.90</u>
5	<u>1061.73</u>
6	<u>1060.27</u>
7	<u>916.69</u>
8	<u>1070.15</u>
9	<u>1071.57</u>
10	<u>1073.36</u>
11	<u>1075.98</u>
12	<u>1077.07</u>
13	<u>1075.48</u>
14	<u>1074.48</u>
15	<u>1072.40</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

16	<u>1069.36</u>
17	<u>1068.65</u>
18	<u>1067.62</u>
19	<u>1068.07</u>
20	<u>1058.23</u>
21	<u>1067.52</u>
22	<u>1065.02</u>
23	<u>1036.27</u>
24	<u>14.73</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>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: September 1996

DOCKET NO: 50-362
 UNIT NAME: SONGS - 3
 DATE: October 11, 1996
 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
93	9/24/96	F	164.3	A	1	96-004*		AB TW	Investigate unidentified RCS leakage and repair failed RCS thermowell.

* This LER required due to pressure boundary leakage

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: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
September 01	0000	Unit in Mode 1, reactor power at 98.9%, 1111 MWE.
September 07	0810	Commenced power reduction to 80% for isothermal temperature coefficient testing, heat treat circulating water system intake. bump circulating water system pumps, and High pressure turbine stop and governor valve testing.
	1015	Reactor power at 80%, 884MWe
	2205	Commenced power increase to full power following completion of heat treat and test work.
September 08	0030	Reactor Power 99%, 1124 MWe.
September 23	2101	Commenced load reduction to investigate source of reactor coolant system leakage.
September 24	0342	Manually tripped main turbine, reactor power 20%.
	0359	Manually tripped reactor, entered Mode 3.
	0530	Source of RCS leakage identified to be from abandoned thermowell on reactor coolant pump cold leg.
	2035	Commenced reactor cooldown, stopped reactor coolant pumps 3P002 and 3P004.
September 25	0025	Entered Mode 4.
	1432	Entered Mode 5
September 30	2400	Unit in Mode 5, Reactor at 0%, 0 MWe. Unit is returning to service following repair of failed thermowell.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: October 11, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 363-6707

MONTH: September 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?

Yes

What will these be?

1. Increase in Diesel Generator allowed outage time (AOT).
2. Implementation of barrier control program.
3. Revision to Containment Isolation Valve action Statement.
4. Increase in Low Pressure Safety Injection AOT

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

1. PCN 453 Diesel Generator AOT	Submitted 11/2/95
2. PCN 467 Barrier Control Program	Submitted 5/09/96
3. PCN 460 Containment Isolation Valves	Submitted 4/11/96
Supplement	Forecast 11/30/96
4. PCN 452 Low Pressure Safety Injection AOT	Submitted 11/8/95

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: October 11, 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.

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).