



SOUTHERN CALIFORNIA
EDISON

An EDISON INTERNATIONAL Company

November 14, 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 October 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 October 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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San Clemente, CA 92674-0128

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

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: November 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: October 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>745.00</u>	<u>7,320.00</u>	<u>115,777.00</u>
12. Number Of Hours Reactor Was Critical	<u>745.00</u>	<u>7,320.00</u>	<u>90,708.19</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>745.00</u>	<u>7,320.00</u>	<u>89,150.31</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>2,481,503.32</u>	<u>24,295,754.73</u>	<u>291,933,769.48</u>
17. Gross Electrical Energy Generated (MWH)	<u>835,625.00</u>	<u>8,200,690.50</u>	<u>98,902,573.00</u>
18. Net Electrical Energy Generated (MWH)	<u>796,431.78</u>	<u>7,808,613.56</u>	<u>93,851,205.47</u>
19. Unit Service Factor	<u>100.00%</u>	<u>100.00%</u>	<u>77.00%</u>
20. Unit Availability Factor	<u>100.00%</u>	<u>100.00%</u>	<u>77.00%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>99.91%</u>	<u>99.70%</u>	<u>75.76%</u>
22. Unit Capacity Factor (Using DER Net)	<u>99.91%</u>	<u>99.70%</u>	<u>75.76%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>4.83%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Refueling Shutdown, November 30, 1996, 70 days</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: November 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: October 1996

DAY	AVERAGE DAILY POWER LEVEL (Mwe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1084.70</u>	16	<u>1085.04</u>
2	<u>1084.74</u>	17	<u>1084.70</u>
3	<u>1086.66</u>	18	<u>1085.45</u>
4	<u>1085.29</u>	19	<u>1082.83</u>
5	<u>1084.54</u>	20	<u>1082.33</u>
6	<u>1084.24</u>	21	<u>1086.99</u>
7	<u>1082.41</u>	22	<u>1089.41</u>
8	<u>1081.87</u>	23	<u>1088.83</u>
9	<u>1081.45</u>	24	<u>1087.37</u>
10	<u>1081.24</u>	25	<u>1079.20</u>
11	<u>1080.58</u>	26	<u>912.37</u>
12	<u>1080.74</u>	27	<u>1089.99</u>
13	<u>810.08</u>	28	<u>1091.70</u>
14	<u>1026.49</u>	29	<u>1090.91</u>
15	<u>1086.66</u>	30	<u>1090.24</u>
		31	<u>1090.16</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: October 1996

DOCKET NO: 50-361

UNIT NAME: SONGS - 2

DATE: November 13, 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
100	10/13/96	S	NA	B	5	NA	KE	COND	Circulating water system intake heat treatment and condenser 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 805-1984

⁵IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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

<u>Date</u>	<u>Time</u>	<u>Event</u>
October 01	0000	Unit is in Mode 1, reactor power 100%, 1140 MWe.
October 13	0003	Commenced downpower to 75% reactor power for circulating water system intake heat treat and to clean condenser waterbox.
	0245	Reactor power 75%, 813 MWe.
	1145	Completed condenser waterbox cleaning. Commenced raising power to 80% to perform intake heat treat and bump circulating water system pumps.
	1305	Reactor power 80%, 807 MWe.
October 14	0255	Commenced power increase to full load following heat treat.
	1005	Reactor power 99.8%, 1138 MWe.
October 25	21.0	Commenced 10% power reduction for turbine valve testing.
	2355	Power reduction stopped for repair of low pressure turbine valve (2200K). Reactor power 93.3%, 1038 MWe.
October 26	0300	Commenced downpower to 85% to bump circulating water system pumps.
	0440	Low pressure turbine valve (2200K) returned to service.
	0545	Reactor power 85%, 934 MWe.
	2150	Commenced reactor power increase to full load following turbine valve testing and bumping circulating water pumps.
October 27	0113	Reactor power 99.9%, 1145 MWe.
October 31	2400	Unit is in Mode 1, reactor power 99.3%, 1140 MWe.

REFUELING INFORMATION

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

MONTH: October 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 8, 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

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. 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: November 13, 1936
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. 870 Total Fuel Assemblies
700 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).

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

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: November 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: October 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>745.00</u>	<u>7,320.00</u>	<u>110,328.00</u>
12. Number Of Hours Reactor Was Critical	<u>480.50</u>	<u>6,891.48</u>	<u>88,828.18</u>
13. Reactor Reserve Shutdown Hours	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
14. Hours Generator On-Line	<u>464.40</u>	<u>6,847.67</u>	<u>87,067.31</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>1,515,524.98</u>	<u>22,776,486.91</u>	<u>281,275,986.31</u>
17. Gross Electrical Energy Generated (MWH)	<u>512,133.00</u>	<u>7,673,653.00</u>	<u>95,433,123.00</u>
18. Net Electrical Energy Generated (MWH)	<u>481,023.78</u>	<u>7,272,685.21</u>	<u>90,212,048.77</u>
19. Unit Service Factor	<u>62.34%</u>	<u>93.55%</u>	<u>78.92%</u>
20. Unit Availability Factor	<u>62.34%</u>	<u>93.55%</u>	<u>78.92%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>59.78%</u>	<u>91.99%</u>	<u>75.71%</u>
22. Unit Capacity Factor (Using DER Net)	<u>59.78%</u>	<u>91.99%</u>	<u>75.71%</u>
23. Unit Forced Outage Rate	<u>0.00%</u>	<u>0.00%</u>	<u>5.18%</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: November 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

MONTH: October 1996

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>0.00</u>	16	<u>1077.45</u>
2	<u>0.00</u>	17	<u>1077.45</u>
3	<u>0.00</u>	18	<u>1077.12</u>
4	<u>0.00</u>	19	<u>951.41</u>
5	<u>0.00</u>	20	<u>1078.41</u>
6	<u>0.00</u>	21	<u>1081.62</u>
7	<u>0.00</u>	22	<u>1082.74</u>
8	<u>0.00</u>	23	<u>1083.66</u>
9	<u>0.00</u>	24	<u>1081.99</u>
10	<u>0.00</u>	25	<u>1082.49</u>
11	<u>0.00</u>	26	<u>1084.37</u>
12	<u>51.66</u>	27	<u>1085.55</u>
13	<u>914.29</u>	28	<u>1084.16</u>
14	<u>1069.24</u>	29	<u>1082.99</u>
15	<u>1076.45</u>	30	<u>1083.91</u>
		31	<u>1023.91</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: October 1996

DOCKET NO: 50-362
 UNIT NAME: SONGS - 3
 DATE: November 13, 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
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There were no unit shutdowns or reductions in the Average Daily Power Level of more than 20% this reporting period.

¹F-Forced
 S-Scheduled

²Reason:
 A-Equipment Failure (Explain)
 B-Maintenance r 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: November 13, 1996
COMPLETED BY: C. E. Williams
TELEPHONE: (714) 368-6707

<u>Date</u>	<u>Time</u>	<u>Event</u>
October 01	0000	Unit in Mode 5, returning to service following repair of failed thermowell.
October 09	0247	Unit enters Mode 4.
October 10	2027	Unit enters Mode 3.
October 11	2305	Commenced reactor startup and approach to criticality.
	2348	Unit enters Mode 2.
October 12	0030	Reactor is Critical.
	0456	Unit enters Mode 1, reactor power 5%.
	1336	Synchronized main generator, applied block load of 55 MWe.
	1645	Commenced power ascension.
October 13	1830	Unit at full load, 1103 MWe.
October 14	1717	Opened first point heater bypass, Reactor power 99%, 1127 MWe.
October 19	0800	Commenced load reduction to 80% to perform heat treat of circulating water system intake.
	1005	Reactor power 80%, 907 MWe.
	1845	Commenced power increase following completion of circulating water system heat treat.
	2214	Reactor power 98%, 1126 MWe.
October 31	1917	Commenced power reduction to less than 80% in accordance with LCS 3.1.105 following dropped CEA.
	2115	Commenced RCS boration to continue power reduction to less than 50% due to azimuthal tilt >10% in accordance with TS 3.2.3.
	2145	Stopped boration, reactor power 43%.
	2400	Unit in Mode 1, reactor power 43%, 425 MWe.

REFUELING INFORMATION

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

MONTH: October 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. 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 1/30/97 |
| 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: November 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.

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).