SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL Company

September 16, 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 August 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 August 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,

C E Ullrich

for 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

IE24

P. O. Box 128
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NRC MONTHLY OPERATING REPORT
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: September 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: August 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	744.00	5,855.00	114,312.00
12. Number Of Hours Reactor Was Critical	744.00	5,855.00	89,243.19
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	744.00	5,855.00	87,685.31
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,407,297.43	19,412,812.34	287,050,827.08
17. Gross Electrical Energy Generated (MWH)	808,884.50	6,561,053.50	97,262,936.00
18. Net Electrical Energy Generated (MWH)	768,940.56	6,247,211.84	92,289,803.75
19. Unit Service Factor	100.00%	100.00%	76.71%
20. Unit Availability Factor	100.00%	100.00%	76.71%
21. Unit Capacity Factor (Using MDC Net)	96.59%	99.72%	75.45%
22. Unit Capacity Factor (Using DER Net)	96.59%	99.72%	75.45%
23. Unit Forced Outage Rate	0.00%	0.00%	4.91%

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	NA	NA
INITIAL ELECTRICITY	NA	NA
COMMERCIAL OPERATION	NA	NA

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH: August 1996

DAY	AVERAGE DAILY POWER LEVEL (Mwe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1050.33	16	1012.00
2	1078.29	17	743.58
3	1075.17	18	792.08
4	1073.04	19	1074.46
5	1045.38	20	1086.29
6	1049.71	21	1088.25
7	1047.71	22	1088.92
8	1052.38	23	1091.25
9	1016.79	24	947.00
10	828.21	25	1091.29
11	1050.92	26	1095.63
12	1033.00	27	1096.08
13	1053.42	28	1094.58
14	1051.67	29	1092.83
15	1048.96	30	1090.92
		31	1085.58

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: August 1996

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: September 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
98	8/16/96	S	NA	B	5	NA	KE SB	COND FCV, ISV	Circulating water system intake heat treatment and perform high pressure turbine stop and governor valve testing.

[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 in the Average Daily Power Level of more than 20% from the previous day
6-Other (Explain)

[4]IEEE Std 805-1984

[5]IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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

Date		Time	Event
August	01	0000	Unit is in Mode 1, reactor power at 80%, 860 MWE.
		0125	Commenced power increase at a rate of 5% per hour to full power following bumping of circulating water pumps.
		0545	Reactor Power at 99.4% 1141 MWE.
August	04	2255	Turbine load reduced to 1090 MWE to lower circulating water system temperature difference.
August	09	1930	Commenced downpower to 75% reactor power to clean condenser waterbox and bump circulating water system pumps.
		2245	Reactor power at 75%, 801 MWE.
August	10	1552	Indication of major system disturbance. Momentary frequency increase to 61.3 Hz followed by a drop to 58.4 Hz.
		1625	High pressure turbine governor valve failed closed due to failed hydraulic servo valve.
		1649	Frequency normal at 60 Hz.
		1658	Commenced Turbine load increase to 95% at a rate of 5% per hour to support system requirements.
		1745	Increased rate of power increase to 10% per hour.
		1940	Reactor power at 95%, 1066 MWE.
		2150	Commenced power increase after replacing hydraulic servo valve for the high pressure turbine stop valve.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH (continued)

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

August	11	0008	Reactor power at 99.1%, 1125 MWE. Commenced turbine load reduction to lower circulating water system temperature difference.
		1843	Reactor power at 94.5%, 1070 MWE.
August	16	2002	Commenced downpower to 75% reactor power to clean condenser waterbox and perform high pressure turbine stop and governor valve testing.
		2240	Reactor Power at 75%, 800 MWE.
August	18	1800	Commenced power increase at 5% per hour following condenser waterbox cleaning and completion of high pressure turbine and governor valve testing.
August	19	0200	Reactor power at 98.5%, 1123 MWE.
August	24	0900	Commenced power reduction to 80% to perform heat treatment of circulating water system intake.
		1100	Reactor power 80%, 877 MWE.
		2140	Commenced raising reactor power to full power following completion of heat treatment
August	25	0155	Reactor power at 99.8%, 1144 MWE.
August	31	2400	Unit is in Mode 1, reactor power 99.9%, 1129 MWE.

REFUELING INFORMATION

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

MONTH: August 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. Increase in Low Pressure Safety Injection AOT
   2. Increase in fuel enrichment to 4.8%.
   3. Revision to test interval of load sequencing relays.
   4. Appendix J Option B Technical Specification.
   5. Increase in Safety Injection Tank boron concentration.
   6. Technical Specification clarifications

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

1. PCN 452 Low Pressure Safety Injection AOT	Submitted 11/8/95
2. PCN 449 Enrichment Increase	Submitted 12/6/95
3. PCN 454 Load Sequencing Relays	Submitted 5/29/96
4. PCN 361 Appendix J Option B	Submitted 5/30/96
5. PCN 465 Safety Injection Tank Boron	Submitted 5/29/96
6. PCN 472 Technical Specification clarifications	Forecast 9/27/96

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: 50-361
UNIT NAME: SONGS - 2
DATE: September 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.

   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: September 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: August 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	744.00	5,855.00	108,863.00
12. Number Of Hours Reactor Was Critical	744.00	5,855.00	87,791.70
13. Reactor Reserve Shutdown Hours	0.00	0.00	0.00
14. Hours Generator On-Line	716.57	5,827.57	86,047.21
15. Unit Reserve Shutdown Hours	0.00	0.00	0.00
16. Gross Thermal Energy Generated (MWH)	2,327,558.66	19,414,439.66	277,913,939.06
17. Gross Electrical Energy Generated (MWH)	793,235.00	6,543,350.50	94,302,820.50
18. Net Electrical Energy Generated (MWH)	751,317.19	6,208,691.49	89,148,055.05
19. Unit Service Factor	96.31%	99.53%	79.04%
20. Unit Availability Factor	96.31%	99.53%	79.04%
21. Unit Capacity Factor (Using MDC Net)	93.50%	98.19%	75.82%
22. Unit Capacity Factor (Using DER Net)	93.50%	98.19%	75.82%
23. Unit Forced Outage Rate	0.00%	0.00%	5.23%

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: NA
26. Units In Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	NA	NA
INITIAL ELECTRICITY	NA	NA
COMMERCIAL OPERATION	NA	NA

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH: August 1996

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1058.67	16	1075.38
2	983.46	17	1069.08
3	27.17	18	1068.25
4	409.25	19	1063.42
5	996.54	20	1067.04
6	1066.92	21	1069.88
7	1070.00	22	1071.17
8	1077.54	23	1073.54
9	1079.33	24	1078.71
10	1081.92	25	1082.46
11	1081.17	26	1081.58
12	1079.88	27	1080.54
13	1081.96	28	1074.46
14	1078.71	29	1076.50
15	1077.96	30	1077.96
		31	1069.92

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: August 1996

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: September 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
92	8/2/96	S	27.43	B	6*	NA	SJ	HX	Repair of 5th point heater tube leak

* Reactor remained critical for duration of outage

[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 in the Average Daily Power Level of more than 20% from the previous day
6-Other (Explain)

[4]IEEE Std 805-1984

[5]IEEE Std 803A-1983

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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

Date		Time	Event
August	01	0000	Unit in Mode 1, reactor power at 99.1%, 1109 MWE.
August	02	1900	Commenced Unit shutdown to repair 5th point heater tube leak.
August	03	0316	Tripped main turbine at 60 MWE.
		0403	Unit entered Mode 2, reactor power 5%.
		0412	Reactor power 1%.
August	04	0310	Commenced raising reactor power after completing 5th point heater tube leak repairs.
		0343	Unit entered Mode 1.
		0549	Reactor power 15%, rolled main turbine.
		0642	Main turbine synchronized to grid, applied block load of 60 MWE.
		0913	Commenced raising reactor power to 75% at a rate of 10% per hour.
		1610	Reactor Power increase stopped at 80%, 885 MWE to perform heat treatment of circulating water system intake.
August	05	0330	Commenced raising reactor power to full power following completion of heat treatment.
		0902	Reactor power at 96%, 1097 MWE.
		1128	First point heater bypass valve full open, Reactor power 98.2%, 1113 MWE.
August	10	1552	Indication of major system disturbance. Momentary frequency increase to 61.3 Hz followed by a drop to 58.4 Hz.
		1649	Frequency normal at 60 Hz.
August	31	2400	Mode 1, Reactor at 98.9%, 1111 MWE.

REFUELING INFORMATION

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

MONTH: August 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. 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 Supplement	Submitted 4/11/96 Forecast 11/30/96

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: September 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).