

April 14, 1997

U. S. Nuclear Regulatory Commission  
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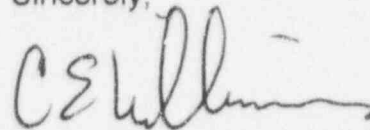
Gentlemen:

Subject: Docket Nos. 50-361 and 50-362  
Monthly Operating Reports for March 1997  
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 of operating statistics and shutdown experience, including documentation of all challenges to pressurizer safety valves, for each unit. Enclosures 1 and 2 provide the March 1997 Monthly Operating Reports for Units 2 and 3, respectively.

If you have any questions, please contact Mr. C. E. Williams at (714) 368-6707.

Sincerely,



Gregory T. Gibson  
Manager, Compliance

Enclosures

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San Onofre Nuclear Generating Station  
Units 2 and 3

USNRC Monthly Operating Report  
March 1997

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**Enclosure 1**

**NRC Monthly Operating Report, March 1997  
San Onofre Nuclear Generating Station, Unit 2**

**USNRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION  
UNIT 2  
March 1997**

Docket No: 50-361  
Unit Name: SONGS - 2  
Date: April 14, 1997  
Completed by: C. E. Williams  
Telephone: (714) 368-6707  
Page 1 of 5

**OPERATING DATA REPORT**

1	Licensed Thermal Power (MWt)	3390
2	Nameplate Rating (Gross MWe)	1127
3	Design Electrical Rating (Net MWe)	1070
4	Maximum Dependable Capacity (Gross MWe)	1127
5	Maximum Dependable Capacity (Net MWe)	1070
6	If changes occurred in 1 through 5 since last report, give reason.	None
7	Power level to which restricted, if any.	NA
8	Reason for restriction, if any.	NA

		This Month	Yr-to-Date	Cumulative
9	Number of Hours in Period	744	2160	119,401
10	Number of Hours Reactor Was Critical	54.1	31.1	91,459.
11	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
12	Hours Generator On-line	0.0	0.0	89,847.
13	Unit Reserve Shutdown Hours	0.0	0.0	0.0
14	Gross Thermal Energy Generated (MWh)	8,136.6	8,136.6	294,254,900.
15	Gross Electrical Energy Generated (MWh)	0.0	0.0	99,682,774.
16	Net Electrical Energy Generated (MWh)	(21,233.8)	(44,387.1)	94,546,696.
17	Unit Service Factor	0.0%	0.0%	75.3%
18	Unit Availability Factor	0.0%	0.0%	75.3%
19	Unit Capacity Factor (Using MDC Net)	0.0%	0.0%	74.0%
20	Unit Capacity Factor (Using DER Net)	0.0%	0.0%	74.0%
21	Unit Forced Outage Rate	0.0%	0.0%	4.8%

22. Shutdowns scheduled over the next 6 months (type, date, and duration of each):

Cycle 9 refueling outage started November 30, 1996. No other outages scheduled in the next 6 months.

23. If shutdown at end of report period, estimated date of startup: April 1, 1997

24. Units in test status (prior to commercial operation):	<u>Forecast</u>	<u>Achieved</u>
Initial criticality	NA	NA
Initial electricity	NA	NA
Commercial operation	NA	NA

USNRC MONTHLY OPERATING REPORT  
 SAN ONOFRE NUCLEAR GENERATING STATION  
 UNIT 2  
 March 1997

Docket No: 50-361  
 Unit Name: SONGS - 2  
 Date: April 14, 1997  
 Completed by: C. E. Williams  
 Telephone: (714) 368-6707  
 Page 2 of 5

AVERAGE DAILY UNIT POWER LEVEL

Day	Ave. Daily Power Level (MWe Net)	Day	Ave. Daily Power Level (MWe Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

USNRC MONTHLY OPERATING REPORT  
 SAN ONOFRE NUCLEAR GENERATING STATION  
 UNIT 2  
 March 1997

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 Date: April 14, 1997  
 Completed by: C. E. Williams  
 Telephone: (714) 368-6707  
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### SHUTDOWNS AND POWER REDUCTIONS

Number	101
Date	11/30/96
Type (1)	S (Scheduled)
Duration (Hours)	744.0
Reason (2)	C (Refueling)
Method of shutting down reactor (3)	4 (Continuation)
LER No.	NA
System Code (4)	NA
Component Code (5)	NA
Cause and corrective action to prevent recurrence	NA

(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



**USNRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION  
UNIT 2  
March 1997**

Docket No: 50-361  
Unit Name: SONGS - 2  
Date: April 14, 1997  
Completed by: C. E. Williams  
Telephone: (714) 368-6707  
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**SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH**

Date	Time	Event
3/1/97	0001	Mode 5, 134 deg. F, 350 PSIA. Reducing pressure to repair CEDM #19 vent stack. Day 91 of refueling outage.
3/2/97	1410	Entered Mode 4.
3/3/97	2045	Entered 36-hour Technical Specification action statement because of RCS pressure boundary leakage (pressurizer liquid temperature thermowell).
3/4/97	1021	Entered Mode 5 to repair pressurizer liquid temperature thermowell leakage. Pressurizer cooldown rate exceeded Technical Specification allowable.
3/15/97	1230	Entered Mode 4.
3/16/97	1727	Entered Mode 3.
3/19/97	0500	Entered 36-hour Technical Specification action statement because of RCS pressure boundary leakage (leaking LTOP isolation valve).
3/19/97	1648	Entered Mode 4.
3/20/97	0638	Entered Mode 5 to repair to leaking LTOP isolation valve.
3/21/97	1457	Entered Mode 4.
3/23/97	0157	Entered Mode 5 to replace a leaking Steam Generator manway gasket.
3/27/97	1442	Entered Mode 4.
3/28/97	1314	Entered Mode 3.
3/29/97	1648	Entered Mode 2.
3/29/97	1754	Reactor critical
3/31/97	0330	Entered Mode 1.
3/31/97	2400	Mode 1 at 18% reactor power, 0% electrical power. Day 121 of refueling outage.

**Note:** There were no challenges to the pressurizer or main steam system safety valves during the month.

USNRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION  
UNIT 2  
March 1997

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Telephone: (714) 368-6707  
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REFUELING INFORMATION

1. Scheduled date for next refueling shutdown: Approximately January 1999.
2. Scheduled date for restart following refueling: Approximately March 1999..
3. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

Unknown at this time for Cycle 10.

What will these be?

NA

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

NA

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.

NA

6. The number of fuel assemblies.

A.	In the core	217
B.	In the spent fuel storage pool:	870
	Unit 2 Spent Fuel Assemblies	800
	Unit 2 New Fuel Assemblies	0
	Unit 1 Spent Fuel Assemblies	70
C.	In the New Fuel Storage Rack	0

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, March 1997**

**San Onofre Nuclear Generating Station, Unit 3**

**USNRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION  
UNIT 3  
March 1997**

Docket No: 50-362  
Unit Name: SONGS - 3  
Date: April 14, 1997  
Completed by: C. E. Williams  
Telephone: (714) 368-6707  
Page 1 of 5

**OPERATING DATA REPORT**

1	Licensed Thermal Power (MWt)	3390
2	Nameplate Rating (Gross MWe)	1127
3	Design Electrical Rating (Net MWe)	1080
4	Maximum Dependable Capacity (Gross MWe)	1127
5	Maximum Dependable Capacity (Net MWe)	1080
6	If changes occurred in Items 1 through 5 since last report, give reason.	None
7	Power level (Net MWe) to which restricted, if any.	NA
8	Reason for restriction, if any.	NA

		This Month	Yr-to-Date	Cumulative
9	Number of Hours in Period	744	2160	113,952
10	Number of Hours Reactor Was Critical	744.0	2160.0	92,452.
11	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
12	Hours Generator On-line	744.0	2160.0	90,694.
13	Unit Reserve Shutdown Hours	0.0	0.0	0.0
14	Gross Thermal Energy Generated (MWh)	2,482,805.	7,223,031.	293,362,514.
15	Gross Electrical Energy Generated (MWh)	840,674.	2,446,019.	99,527,226.
16	Net Electrical Energy Generated (MWh)	798,189.	2,322,308.	94,100,319.
17	Unit Service Factor	100.0%	100.0%	79.6%
18	Unit Availability Factor	100.0%	100.0%	79.6%
19	Unit Capacity Factor (Using MDC Net)	99.3%	99.6%	76.5%
20	Unit Capacity Factor (Using DER Net)	99.3%	99.6%	76.5%
21	Unit Forced Outage Rate	0.0%	0.0%	4.9%

22. Shutdowns scheduled over the next 6 months (type, date, and duration of each):

Refueling shutdown (U3C9), April 12, 1997, 75 days

23. If shutdown at end of report period, estimated date of startup: NA

24. Units in test status (prior to commercial operation):      Forecast      Achieved

Initial criticality	NA	NA
Initial electricity	NA	NA
Commercial operation	NA	NA

USNRC MONTHLY OPERATING REPORT  
 SAN ONOFRE NUCLEAR GENERATING STATION  
 UNIT 3  
 March 1997

Docket No: 50-362  
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 Date: April 14, 1997  
 Completed by: C. E. Williams  
 Telephone: (714) 368-6707  
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AVERAGE DAILY UNIT POWER LEVEL

Day	Ave. Daily Power Level (MWe Net)	Day	Ave. Daily Power Level (MWe Net)
1	1082.	17	1072.
2	1081.	18	1072.
3	1080.	19	1074.
4	1080.	20	1074.
5	1047.	21	1075.
6	1080.	22	1075.
7	1079.	23	1074.
8	1075.	24	1073.
9	1069.	25	1075.
10	1069.	26	1074.
11	1069.	27	1073.
12	1067.	28	1071.
13	1067.	29	1072.
14	1066.	30	1073.
15	1071.	31	1074.
16	1075.		

USNRC MONTHLY OPERATING REPORT  
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 UNIT 3  
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UNIT SHUTDOWNS AND POWER REDUCTIONS

Number	None
Date	NA
Type (1)	NA
Duration (Hours)	NA
Reason (2)	NA
Method of shutting down reactor (3)	NA
LER No.	NA
System Code (4)	NA
Component Code (5)	NA
Cause and corrective action to prevent recurrence	NA

(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

**USNRC MONTHLY OPERATING REPORT  
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UNIT 3  
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**SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH**

Date	Time	Event
3/1/97	0001	Mode 1 at approximately 99.3% reactor power, 100.4% electrical power.
3/31/97	2400	Mode 1 at approximately 99.3% reactor power, 99.7% electrical power.

**Note:** There were no challenges to the pressurizer or main steam system safety valves during the month.

USNRC MONTHLY OPERATING REPORT  
SAN ONOFRE NUCLEAR GENERATING STATION  
UNIT 3  
March 1997

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REFUELING INFORMATION

1. Scheduled date for next refueling shutdown: April 12, 1997.
2. Scheduled date for restart following refueling: June 26, 1997
3. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

No.

What will these be?

NA

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

NA

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.

6. The number of fuel assemblies.

A	In the core	217
B.	In the spent fuel storage pool:	918
	Unit 3 Spent Fuel Assemblies	700
	Unit 3 New Fuel Assemblies	100
	Unit 1 Spent Fuel Assemblies	118
C.	In the New Fuel Storage Rack	0

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).