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 FACIL: 50-361 San Onofre Nuclear Station, Unit 2, Southern Californ 05000361
 50-362 San Onofre Nuclear Station, Unit 3, Southern Californ 05000362
 AUTH. NAME AUTHOR AFFILIATION
 FARR, M.M. Southern California Edison Co.
 RAINSBERRY, J.L. Southern California Edison Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for Dec 1991 for San Onofre Nuclear
 Generating Station, Units 2 & 3. W/920114 ltr.

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Southern California Edison Company

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January 14, 1992

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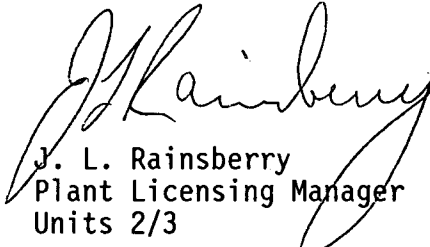
Subject: Docket Nos. 50-361 and 50-362
Monthly Operating Reports for December 1991
San Onofre Nuclear Generating Station, Units 2 and 3

Technical Specification 6.9.1.10 to Facility Operating Licenses NPF-10 and NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3, respectively, requires SCE provide a Monthly Operating Report for each Unit, which includes: routine operating statistics and shutdown experience; all challenges to safety valves; any changes to the Offsite Dose Calculation Manual (ODCM); and any major changes to the radioactive waste treatment system. All covered activities are reported monthly, except for ODCM changes, which are reported within 90 days from the time the changes were made effective.

This letter transmits the December 1991 Monthly Operating Reports for Units 2 and 3, respectively. There were no challenges to safety valves, no changes to the ODCM, and no major changes to the Units 2 and 3 radioactive waste treatment systems during the reporting period.

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

Very truly yours,


J. L. Rainsberry
Plant Licensing Manager
Units 2/3

Enclosures

cc: J. B. Martin (Regional Administrator, USNRC Region V)
C. W. Caldwell (USNRC Senior Resident Inspector, Units 1, 2 and 3)

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NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-361
 UNIT NAME: SONGS - 2
 DATE: 1-14-92
 COMPLETED BY: M. M. Farr
 TELEPHONE: (714) 368-9787

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 2
2. Reporting Period: December 1991
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>744.00</u> | <u>8,760.00</u> | <u>73,393.00</u> |
| 12. Number Of Hours Reactor Was Critical | <u>744.00</u> | <u>5,732.69</u> | <u>52,492.25</u> |
| 13. Reactor Reserve Shutdown Hours | <u>0.00</u> | <u>0.00</u> | <u>0.00</u> |
| 14. Hours Generator On-Line | <u>744.00</u> | <u>5,639.13</u> | <u>51,441.55</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>2,467,833.81</u> | <u>18,038,050.71</u> | <u>167,522,035.43</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>845,492.00</u> | <u>6,093,808.50</u> | <u>56,801,302.50</u> |
| 18. Net Electrical Energy Generated (MWH) | <u>807,458.00</u> | <u>5,759,812.59</u> | <u>53,812,334.83</u> |
| 19. Unit Service Factor | <u>100.00%</u> | <u>64.37%</u> | <u>70.09%</u> |
| 20. Unit Availability Factor | <u>100.00%</u> | <u>64.37%</u> | <u>70.09%</u> |
| 21. Unit Capacity Factor (Using MDC Net) | <u>101.43%</u> | <u>61.45%</u> | <u>68.52%</u> |
| 22. Unit Capacity Factor (Using DER Net) | <u>101.43%</u> | <u>61.45%</u> | <u>68.52%</u> |
| 23. Unit Forced Outage Rate | <u>0.00%</u> | <u>12.66%</u> | <u>6.94%</u> |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): None | | | <u>NA</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: 50-361
UNIT NAME: SONGS - 2
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

MONTH: December 1991

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 1 | <u>1118.71</u> |
| 2 | <u>1116.42</u> |
| 3 | <u>1115.96</u> |
| 4 | <u>1116.29</u> |
| 5 | <u>1113.63</u> |
| 6 | <u>1108.96</u> |
| 7 | <u>1093.54</u> |
| 8 | <u>1110.63</u> |
| 9 | <u>1112.46</u> |
| 10 | <u>1112.92</u> |
| 11 | <u>1113.13</u> |
| 12 | <u>1111.46</u> |
| 13 | <u>1107.33</u> |
| 14 | <u>1088.21</u> |
| 15 | <u>1110.63</u> |
| 16 | <u>1112.29</u> |

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 17 | <u>1113.38</u> |
| 18 | <u>1113.88</u> |
| 19 | <u>1112.58</u> |
| 20 | <u>1112.17</u> |
| 21 | <u>1102.83</u> |
| 22 | <u>1113.38</u> |
| 23 | <u>1105.42</u> |
| 24 | <u>1098.54</u> |
| 25 | <u>1097.71</u> |
| 26 | <u>1071.83</u> |
| 27 | <u>500.79</u> |
| 28 | <u>1010.54</u> |
| 29 | <u>1108.50</u> |
| 30 | <u>1109.13</u> |
| 31 | <u>1110.88</u> |

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1991DOCKET NO: 50-361UNIT NAME: SONGS - 2DATE: 1-14-92COMPLETED BY: M. M. FarrTELEPHONE: (714) 368-9787

| 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 |
|-----|--------|-------------------|---------------------|---------------------|---|------------|-----------------------------|--------------------------------|--|
| 69 | 911226 | S | NA | A | 5 | NA | SB | RV | Reduced reactor power to 30% support MSR relief valve repair. |

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: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

| <u>Date</u> | <u>Time</u> | <u>Event</u> |
|-------------|-------------|---|
| December 1 | 0001 | Unit is in Mode 1 at 100% reactor power. Turbine load at 1161 Mwe gross. |
| December 26 | 2350 | Commenced reactor power decrease to 30% to support MSR relief valve repair. |
| December 27 | 0630 | Reactor at 30% power. |
| | 1230 | Commenced reactor power increase to 90% following MSR relief valve rupture diaphragm installation, reactor power limited to 90% until relief can be ungagged. |
| | 2030 | Reactor at 90% power. |
| December 28 | 2030 | MSR relief ungagged, commenced reactor power increase to 100%. |
| | 2355 | Reactor at 100% power. |
| December 31 | 2400 | Unit is in Mode 1 at 100% reactor power. Turbine load at 1160 MWe gross. |

REFUELING INFORMATION

| | |
|---------------|-----------------------|
| DOCKET NO: | <u>50-361</u> |
| UNIT NAME: | <u>SONGS - 2</u> |
| DATE: | <u>1-14-92</u> |
| COMPLETED BY: | <u>M. M. Farr</u> |
| TELEPHONE: | <u>(714) 368-9787</u> |

MONTH: December 1991

1. Scheduled date for next refueling shutdown.

Cycle 7 refueling outage is forecast for May 1993.

2. Scheduled date for restart following refueling.

Restart from Cycle 7 refueling outage is forecast for July 1993.

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

Not yet determined for Cycle 7.

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.

REFUELING INFORMATION

DOCKET NO: 50-361
UNIT NAME: SONGS - 2
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

MONTH: December 1991

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 554 (484 Unit 2 Spent
Fuel Assemblies, 70
Unit 1 Spent 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.

Approximately 2001 (full off load capability)

NRC MONTHLY OPERATING REPORT

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

OPERATING STATUS

1. Unit Name: San Onofre Nuclear Generating Station, Unit 3
2. Reporting Period: December 1991
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>744.00</u> | <u>8,760.00</u> | <u>67,944.00</u> |
| 12. Number Of Hours Reactor Was Critical | <u>744.00</u> | <u>8,270.28</u> | <u>52,498.25</u> |
| 13. Reactor Reserve Shutdown Hours | <u>0.00</u> | <u>0.00</u> | <u>0.00</u> |
| 14. Hours Generator On-Line | <u>744.00</u> | <u>8,094.52</u> | <u>51,071.01</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>2,419,183.80</u> | <u>26,989,782.90</u> | <u>163,287,424.46</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>813,075.50</u> | <u>9,148,342.50</u> | <u>55,400,025.00</u> |
| 18. Net Electrical Energy Generated (MWH) | <u>772,520.00</u> | <u>8,693,197.97</u> | <u>52,318,107.30</u> |
| 19. Unit Service Factor | <u>100.00%</u> | <u>92.40%</u> | <u>75.17%</u> |
| 20. Unit Availability Factor | <u>100.00%</u> | <u>92.40%</u> | <u>75.17%</u> |
| 21. Unit Capacity Factor (Using MDC Net) | <u>96.14%</u> | <u>91.89%</u> | <u>71.30%</u> |
| 22. Unit Capacity Factor (Using DER Net) | <u>96.14%</u> | <u>91.89%</u> | <u>71.30%</u> |
| 23. Unit Forced Outage Rate | <u>0.00%</u> | <u>7.60%</u> | <u>7.75%</u> |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Cycle 6 refueling scheduled to begin January 1992. | | | <u>NA</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: 50-361
UNIT NAME: SONGS - 3
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

MONTH: December 1991

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 1 | <u>1090.54</u> |
| 2 | <u>1088.79</u> |
| 3 | <u>1087.46</u> |
| 4 | <u>1089.04</u> |
| 5 | <u>1087.67</u> |
| 6 | <u>1080.96</u> |
| 7 | <u>806.92</u> |
| 8 | <u>864.75</u> |
| 9 | <u>841.92</u> |
| 10 | <u>820.67</u> |
| 11 | <u>819.29</u> |
| 12 | <u>866.54</u> |
| 13 | <u>1073.75</u> |
| 14 | <u>1081.42</u> |
| 15 | <u>1089.38</u> |
| 16 | <u>1088.17</u> |

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 17 | <u>1087.42</u> |
| 18 | <u>1089.08</u> |
| 19 | <u>1087.42</u> |
| 20 | <u>1089.33</u> |
| 21 | <u>1083.29</u> |
| 22 | <u>1089.04</u> |
| 23 | <u>1086.29</u> |
| 24 | <u>1085.83</u> |
| 25 | <u>1087.25</u> |
| 26 | <u>1087.46</u> |
| 27 | <u>1085.29</u> |
| 28 | <u>1082.67</u> |
| 29 | <u>1090.92</u> |
| 30 | <u>1090.54</u> |
| 31 | <u>1089.25</u> |

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1991DOCKET NO: 50-362UNIT NAME: SONGS - 3DATE: 1-14-92COMPLETED BY: M. M. FarrTELEPHONE: (714) 368-9787

| 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 |
|-----|--------|-------------------|---------------------|---------------------|---|------------|-----------------------------|--------------------------------|---|
| 62 | 911206 | S | NA | A | 5 | NA | KP KE SB | FCV COND HX | Reduced reactor power to 75% to support RCP 3P-001 deluge reset, circulating water system heat treatment, and first point heater 3E-036 repair. |

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: 50-362
UNIT NAME: SONGS - 3
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

| <u>Date</u> | <u>Time</u> | <u>Event</u> |
|-------------|-------------|--|
| December 1 | 0001 | Unit is in Mode 1 at 100% reactor power. Turbine load at 1140 MWe gross. |
| December 6 | 2200 | Commenced reactor power decrease to 75% to support RCP 3P-001 deluge reset, circulating water system heat treatment, and first point heater 3E-036 repair. |
| December 7 | 0445 | Reactor at 75% power. |
| | 0835 | Commenced reactor power increase to 80% following completion of 3P-001 reset. |
| | 1035 | Reactor at 80% power. |
| December 8 | 0215 | Commenced reactor power increase to 90% following circulating water system heat treatment. |
| | 0500 | Reactor at 80% power. |
| | 0720 | Commenced reactor power decrease to 85% due to excessive feed heater level and flow oscillations caused by MSR chugging. |
| | 0845 | Reactor at 83% power. MSR chugging and level alarms have decreased. |
| December 12 | 1607 | Commenced reactor power increase to 100% following completion of first point heater 3E-036 repair. |
| December 13 | 0001 | Reactor at 98% power. |
| December 31 | 2359 | Unit is in Mode 1 at 100% reactor power. Turbine load at 1135 MWe gross. |

REFUELING INFORMATION

| | |
|---------------|-----------------------|
| DOCKET NO: | <u>50-362</u> |
| UNIT NAME: | <u>SONGS - 3</u> |
| DATE: | <u>1-14-92</u> |
| COMPLETED BY: | <u>M. M. Farr</u> |
| TELEPHONE: | <u>(714) 368-9787</u> |

MONTH: December 1991

1. Scheduled date for next refueling shutdown.

Cycle 6 refueling outage is forecast for January 1992.

2. Scheduled date for restart following refueling.

Restart from Cycle 6 refueling outage is forecast for April 1992.

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

Yes.

What will these be?

All license amendments associated with the Cycle 6 refueling outage have been approved.

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

Not applicable.

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.

REFUELING INFORMATION

DOCKET NO: 50-362
UNIT NAME: SONGS - 3
DATE: 1-14-92
COMPLETED BY: M. M. Farr
TELEPHONE: (714) 368-9787

MONTH: December 1991

6. The number of fuel assemblies.

a) In the core. 217

b) In the spent fuel storage pool. 553 (376 Unit 3 Spent
Fuel Assemblies, 69
Unit 1 Spent Fuel
Assemblies, and 108
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.

Approximately 2003 (full off load capability)