UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 9, 1994

Docket Nos. 50-361
and 50-362

Mr. Harold B. Ray
Senior Vice President
Southern California Edison Co.
Irvine Operations Center
23 Parker Street
Irvine, California 92718

Mr. Edwin A. Guiles
Vice President
Engineering and Operations
San Diego Gas & Electric Co.
101 Ash Street
San Diego, California 92112

Gentlemen:

SUBJECT: ISSUANCE OF AMENDMENT FOR SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 2 (TAC NO. M85093) AND UNIT NO. 3 (TAC NO. M85094)

The Commission has issued the enclosed Amendment No. 111 to Facility Operating License No. NPF-10 and Amendment No. 100 to Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station, Unit Nos. 2 and 3. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated October 16, 1992, designated by you as PCN-356.

These amendments revise TS 3/4.3.4, "Turbine Overspeed Protection," to allow one surveillance every 31 days for verification of turbine overspeed protection system operability. Currently, the surveillance tests are performed at power every 7 days and again every 31 days. The 31-day test is performed by an operator with an observer at the valve.

A copy of our related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Mel B. Fields

140010

Mel B. Fields, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 111to NPF-10
2. Amendment No. 100to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

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Sincerely,

Original signed by:
Mel B. Fields, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 111 to NPF-10
2. Amendment No. 100 to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

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DATE	2/2/94	2/3/94	2/15/94	3/1/94	3/9/94

OFFICIAL RECORD COPY DOCUMENT NAME: S23AMD.356

Messrs. Ray and Guiles
Southern California Edison Company

San Onofre Nuclear Generating
Station, Unit Nos. 2 and 3

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-361

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 111
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee) dated October 16, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 111 , are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and must be fully implemented no later than 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Theodore R Quay

Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 9, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO.111 TO FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE	INSERT
3/4 3-76	3/4 3-76

INSTRUMENTATION

LOOSE-PART DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The loose-part detection system shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one or more loose part detection system channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each channel of the loose-part detection system shall be demonstrated OPERABLE by performance of a:

a. CHANNEL CHECK at least once per 24 hours,

b. CHANNEL FUNCTIONAL TEST at least once per 31 days, and

c. CHANNEL CALIBRATION at least once per refueling interval.

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one turbine overspeed protection system shall be OPERABLE.

APPLICABILITY: MODES 1, 2* and 3.*

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam lead inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam lead inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam lead or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required turbine overspeed protection system otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. Deleted.

b. At least once per 31 days by direct observation of the movement of each of the following valves through one complete cycle from the running position.

   1. Four high pressure turbine stop valves.

   2. Four high pressure turbine control valves.

   3. Six low pressure turbine reheat stop valves.

   4. Six low pressure turbine reheat intercept valves.

c. At least once per refueling interval by performance of a CHANNEL CALIBRATION on the turbine overspeed protection systems.

d. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.

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*With any main steam line isolation valve and/or any main steam line isolation valve bypass valve not fully closed.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-362

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 100
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee) dated October 16, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 100 , are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and must be fully implemented no later than 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Theodore R. Quay

Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 9, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 100 TO FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
3/4 3-77	3/4 3-77

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one turbine overspeed protection system shall be OPERABLE.

APPLICABILITY: MODES 1, 2* and 3.*

ACTION:

a. With one stop valve or one control valve per high pressure turbine steam lead inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam lead inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam lead or isolate the turbine from the steam supply within the next 6 hours.

b. With the above required turbine overspeed protection system otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4 The above required turbine overspeed protection system shall be demonstrated OPERABLE:

a. Deleted.

b. At least once per 31 days by direct observation of the movement of each of the following valves through one complete cycle from the running position.

   1. Four high pressure turbine stop valves.

   2. Four high pressure turbine control valves.

   3. Six low pressure turbine reheat stop valves.

   4. Six low pressure turbine reheat intercept valves.

c. At least once per refueling interval by performance of a CHANNEL CALIBRATION on the turbine overspeed protection systems.

d. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.

*With any main steam line isolation valve and/or any main steam line isolation valve bypass valve not fully closed.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.111 TO FACILITY OPERATING LICENSE NO. NPF-10

AND AMENDMENT NO.100 TO FACILITY OPERATING LICENSE NO. NPF-15

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

By letter dated October 16, 1992, Southern California Edison Company, et al. (SCE or the licensee) submitted a request to revise Technical Specification (TS) 3/4.3.4, "Turbine Overspeed Protection," for San Onofre Nuclear Generating Station (SONGS), Unit Nos. 2 and 3. The proposed changes would revise Surveillance Requirements 4.3.4.a and 4.3.4.b to allow one surveillance every 31 days for verification of turbine overspeed protection system operability. Currently, the surveillance tests are performed at power every 7 days and again every 31 days. The 31-day test is performed by an operator with an observer at the valve.

2.0 EVALUATION

The turbine control and overspeed protection system is designed to control turbine action under all normal and abnormal conditions to assure that a turbine trip from full load will not cause the turbine to overspeed beyond acceptable limits and possibly generate a turbine missile.

TS 3/4.3.4, "Turbine Overspeed Protection," identifies turbine overspeed protection system operability requirements, actions to initiate if the overspeed protection system is inoperable, and surveillance tests to demonstrate turbine overspeed protection system operability. Turbine speed control valve operability is verified by Surveillance Requirement (SR) 4.3.4.a. and 4.3.4.b, which require tests of the high pressure main steam stop and control valves and low pressure reheat stop and intercept valves. SR 4.3.4.a requires cycling the four sets of valves through at least one complete cycle from the normal running position of these valves when the plant is operating. This test is required once every 7 days and is performed by an

operator in the control room. In addition, SR 4.3.4.b requires direct observation of the movement of each valve through one complete cycle from the normal position once every 31 days. The surveillance test verifies freedom of movement of valve components, and confirms that nothing inhibits the valve from closing. The objective of the surveillance requirements is to assure that the valves will shut upon demand to prevent turbine overspeed.

Performing these surveillances has caused reactor trips on an industry wide basis, although no trips due to turbine valve testing have been experienced at SONGS Units 2 and 3. The surveillance also results in additional wear to the valves, and stress to the steam system. While the test is being performed, the steam flow to the turbine must be reduced in order to avoid a reactor trip. This is accomplished by dumping steam to the condenser, which could cause vibration of the condenser tubes. The industry has observed that this test is hard on the steam system, potentially causing relief valves to lift and adding thermal and mechanical stresses to the piping.

The proposed changes to the TS would eliminate the weekly testing requirement and leave in place the every 31-day surveillance test. The 31-day test would continue to be implemented with an observer at the valves.

GEC Alsthom International, the turbine manufacturer for SONGS Units 2 and 3, has concurred with the proposed change to SR 4.3.4. The GEC review indicated that changing the testing schedule to once every 31 days will provide sufficient safeguards to ensure turbine overspeed operability. GEC considers adoption of monthly on-load testing to be a reasonable compromise between the maximum assurance provided by frequent testing and the operational upsets which may occur during the course of performing the routine on-load tests.

Generic Letter 93-05, "Line-Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation," includes a recommendation to reduce the turbine valve testing frequency. The generic letter states that the surveillance can be changed to once per 92 days as long as there is direct observation of the movement of the valve, and the turbine manufacturer concurs with the proposed change. Since both of these conditions have been met as detailed in the licensee's October 16, 1992 letter, and since testing the valves every 31 days is more conservative than the frequency specified in the generic letter, the staff finds acceptable the licensee's proposal to reduce the turbine valve test frequency to once every 31 days.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a surveillance requirement with respect to the use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 8783). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Andrea Wilford

Date: March 9, 1994