February 11, 1991

Docket Nos. 50-361 and 50-362

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

Mr. Gary D. Cotton Senior Vice President **Engineering and Operations** San Diego Gas & Electric Co. 101 Ash Street San Diego, California 92112

Gentlemen:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 92 AND 82 TO FACILITY OPERATING LICENSE NOS. NPF-10 AND NPF-15 FOR THE SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NOS. 2 AND 3 (TAC NOS. 79024 AND 79025)

The Commission has issued the enclosed Amendment Nos. 92 and 82 Operating License Nos. NPF-10 and 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 November 14, 1990, designated by you as PCN-303.

These amendments modify TS 3/4.7.2 regarding the minimum pressurization temperature for the San Onofre Unit No. 3 steam generators from 70°F to 90°F based on a vendor recommendation to change the reference nil ductility transition temperature. Additionally, the San Onofre Unit Nos. 2 and 3 TS 3/4.7.2 are clarified to indicate that the pressure/temperature limitation pertains only to the steam generator secondary side. Both San Onofre Unit Nos. 2 and 3 bases are revised to include a change to the reference temperature for the nil ductility transition.

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.

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Sincerely, Original signed by Lawrence E. Kokajko, Project Manager Project Directorate V Division of Reactor Projects III/IV/V Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 92 to NPF-10 Amendment No. 82 to NPF-15

Safety Evaluation

cc w/enclosures: See next page

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10/11/91

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

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. 92 License No. NPF-10

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, San Diego Gas and Electric Company, the City of Riverside, California, and the City of Anaheim, California (licensees) (the licensee) dated November 14, 1990, 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 92, 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

2 S. Kokajka

James E. Dyer, 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: February 11, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 92 FACILITY OPERATING LICENSE NO. NPF-10 DOCKET NO. 50-361

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

REMOVE	INSERT
3/4 7-10	3/4 7-10
B 3/4 7-3b	B 3/4 7-3b

ATMOSPHERIC DUMP VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 The atmospheric dump valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4*.

ACTION:

- a. With an atmospheric dump valve inoperable, restore the valve to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN and on shutdown cooling within the next 12 hours.
- b. With both atmospheric dump valves inoperable, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN and on shutdown cooling within the next 12 hours.
- c. With the backup nitrogen gas system capacity less than 8 hours, restore the backup nitrogen gas-system capacity within 72 hours or declare the ADV inoperable.
- The provisions of Specification 3.0.4 are not applicable for MODES 2, 3, and 4* with only one atmospheric dump valve inoperable.

SURVEILLANCE REQUIREMENTS

- 4.7.1.6.1 Each atmospheric dump valve shall be determined OPERABLE at least once per REFUELING INTERVAL by:
 - a. Verifying that each atmospheric dump valve will open in modulate mode using the backup nitrogen system,
 - b. Verifying that each atmospheric dump valve will close to its isolation position upon a MSIS test signal,
 - c. Verifying that each atmospheric dump valve will open in modulate/override mode with a MSIS test signal present, and
 - d. Verifying that local manual operation will fully open and close each atmospheric dump valve.
- 4.7.1.6.2 Verify at least once per 7 days that the backup nitrogen gas system capacity will provide a minimum of 8 hours of pneumatic operation for each atmospheric dump valve.
- 4.7.1.6.3 The atmospheric dump valves shall be determined OPERABLE as required per Specification 4.0.5.

^{*}When steam generators are being used for decay heat removal.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

LIMITING CONDITION FOR OPERATION

3.7.2 The temperature of the secondary coolant in the steam generators shall be greater than 70°F when the pressure of the secondary coolant in the steam generator is greater than 200 psig.

APPLICABILITY: At all times.

ACTION:

With the requirements of the above specification not satisfied:

- Reduce the steam generator pressure of the secondary side to less a. than or equal to 200 psig within 30 minutes, and
- Perform an engineering evaluation to determine the effect of the overpressurization on the structural integrity of the steam generator. Determine that the steam generator remains acceptable for continued operation prior to increasing its temperatures above 200°F.

SURVEILLANCE REQUIREMENTS

4.7.2 The pressure in the secondary side of the steam generators shall be determined to be less than 200 psig at least once per hour when the temperature of the secondary coolant is less than 70°F.

3/4.7.1.6 ATMOSPHERIC DUMP VALVES (Continued)

The provisions of Specification 3.0.4 in MODES 2, 3, and 4 do not apply when only one ADV is inoperable, and the ADV can be made OPERABLE within the allowed action times. However, with two inoperable ADVs the plant must be placed on shutdown cooling. Therefore, the provisions of Specification 3.0.4 do apply with two inoperable ADVs.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on secondary side steam generator pressure and temperature ensures that the pressure induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200 psig are based on a steam generator RT_{NDT} of 40°F and are sufficient to prevent brittle fracture.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the component cooling water system ensures that sufficient cooling capacity is available for continued operation of safety related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

3/4.7.4 SALT WATER COOLING SYSTEM

The OPERABILITY of the salt water cooling system ensures that sufficient cooling capacity is available for continued operation of equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

The OPERABILITY of the control room emergency air cleanup system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix A, 10 CFR 50.

Cumulative operation of the system with the heaters on for at least 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.



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

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.82 License No. NPF-15

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, San Diego Gas and Electric Company, the City of Riverside, California, and the City of Anaheim, California (licensees) (the licensee) dated November 14, 1990, 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. 82 , 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

James E. Dyer, 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: February 11, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 82

FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

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

REMOVE	INSERT
3/4 7-11	3/4 7-11
B 3/4 7-3b	B 3/4 7-3b

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

LIMITING CONDITION FOR OPERATION

3.7.2 The temperature of the secondary coolant in the steam generators shall be greater than $90^{\circ}F$ when the pressure of the secondary coolant in the steam generator is greater than 200 psig.

APPLICABILITY: At all times.

ACTION:

With the requirements of the above specification not satisfied:

- a. Reduce the steam generator pressure of the secondary side to less than or equal to 200 psig within 30 minutes, and
- b. Perform an engineering evaluation to determine the effect of the overpressurization on the structural integrity of the steam generator. Determine that the steam generator remains acceptable for continued operation prior to increasing its temperatures above 200°F.

SURVEILLANCE REQUIREMENTS

4.7.2 The pressure in the secondary side of the steam generators shall be determined to be less than 200 psig at least once per hour when the temperature of the secondary coolant is less than 90°F.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least two independent component cooling water loops shall be

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.3 At least two component cooling water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per refueling interval during shutdown, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position and each component cooling water pump starts automatically on an SIAS test signal.

BASES

3/4.7.1.6 ATMOSPHERIC DUMP VALVES (Continued)

the ADVs are subject to inservice testing per Surveillance 4.7.1.6.3, the frequency of Surveillance 4.7.1.6.1 is based on the length of a fuel cycle.

The provisions of Specification 3.0.4 in MODES 2, 3, and 4 do not apply when only one ADV is inoperable, and the ADV can be made OPERABLE within the allowed action times. However, with two inoperable ADVs the plant must be placed on shutdown cooling. Therefore, the provisions of Specification 3.0.4 do apply with two inoperable ADVs.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on secondary side steam generator pressure and temperature ensures that the pressure-induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 90°F and 200 psig are based on a steam generator $RT_{\mbox{NDT}}$ of 60°F and are sufficient to prevent brittle fracture.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the component cooling water system ensures that sufficient cooling capacity is available for continued operation of safety related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

3/4.7.4 SALT WATER COOLING SYSTEM

The OPERABILITY of the salt water cooling system ensures that sufficient cooling capacity is available for continued operation of equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

3/4.7.5 CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM

The OPERABILITY of the control room emergency air cleanup system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR 50.

Cumulative operation of the system with the heaters on for at least 10 hours over a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 92 AND 82 TO

FACILITY OPERATING LICENSE NOS. NPF-10 AND 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, UNIT NOS. 2 AND 3

DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

By letter dated November 14, 1990, Southern California Edison Company, et al. (SCE or the licensee) requested changes to the Technical Specifications (TS) for Facility Operating License Nos. NPF-10 and NPF-15 that authorize operation of San Onofre Nuclear Generating Station, Unit Nos. 2 and 3 in San Diego County, California.

This amendment application is a request to modify TS 3/4.7.2 regarding the minimum pressurization temperature for the San Onfore Unit No. 3 steam generators from 70°F to 90°F based on a vendor recommendation to change the reference nil ductility transition temperature. Additionally, the San Onofre Unit Nos. 2 and 3 TS 3/4.7.2 would be clarified to indicate that the pressure/temperature limitation pertains only to the steam generator secondary side. Both San Onofre Unit Nos. 2 and 3 bases would be revised to include a change to the reference temperature for the nil ductility transition.

2.0 EVALUATION

During an engineering review, the licensee discovered a discrepancy regarding the reference temperature for nil ductility transition (RT_{NDT}) for the San Onofre Unit 3 steam generators. This discrepancy was based on an evaluation of the limiting secondary side material properties used in the fabrication of the steam generators for each unit. The licensee documented this issue in Licensee Event Report 90-009 and proceeded to administratively control the San Onofre Unit 3 steam generator pressure/temperature limitation, utilizing a more conservative value.

This required administratively raising the minimum pressurization temperature when steam generator secondary pressure is greater than or equal to 200 psig from 70°F to 90°F for San Onofre Unit 3. This is based upon the guidelines specified in the 1974 Edition of the ASME Boiler and Pressure Vessel Code, Section III, Division 1, Subsection NC 2332 D (RT_{NDT} + 30°F). The ASME Code requires a more restrictive steam generator temperature limitation of a 30°F margin between the RT_{NDT} and the lowest service temperature. The RT_{NDT} for San Onofre Unit 3 was determined to be 60°F; hence the minimum pressurization temperature should be 90°F. A similar administrative control was not necessary for San Onofre Unit 2.

The licensee proposed to modify the San Onofre Unit 3 TS 3/4.7.2, "Steam Generator Pressure/Temperature Limitation," and modify the appropriate Bases section to reflect a 90°F value for the limiting condition for operation (as opposed to a 70°F value) and a 60°F RT_{NDT} value (as opposed to a 30°F value) in the Bases section. This is a more conservative value than what is currently in the Technical Specifications and is being administratively controlled at these values in the interim. While the San Onofre Unit 2 TS limiting condition for operation is not affected, the appropriate Bases section should reflect a revised value of RT_{NDT} from 30°F to 40°F. This, too, is a more conservative value. The staff agrees that these changes are more conservative and appropriate for the San Onofre Units 2 and 3 TS 3/4.7.2.

Moreover, the licensee proposed to make editorial changes to both San Onofre Units 2 and 3 TS 3/4.7.2 and the Bases section. Since TS 3/4.4.8 is applicable to the primary side of the steam generators, the licensee requests that TS 3/4.7.2 be modified to reflect the secondary side of the steam generators. The staff agrees that this change is editorial in nature and is more correct than what is currently stated.

Therefore, based upon the licensee's letter dated November 14, 1990, and the information presented herein, the proposed modifications to the San Onofre Nuclear Generating Station, Unit Nos. 2 and 3, Technical Specifications are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

The amendments involve changes with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, or changes a surveillance requirement. The 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. 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 these amendments.

4.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Lawrence E. Kokajko

Dated: February 11, 1991