BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY for a Class 104(b) License to Acquire, Possess, and Use a Utilization Facility as Part of Unit No. 1 of the San Onofre Nuclear Generating Station	)	DOCKET NO. 50-206 Amendment No. 172

SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY, pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 172.

This amendment consists of Proposed Change No. 210 to Provisional Operating License No. DPR-13. Proposed Change No. 210 modifies the Technical Specifications incorporated in Provisional Operating License No. DPR-13 as Appendix A.

Proposed Change No. 210 is a request to revise Technical Specifications to include the change to Overpressure Mitigating System (OMS) setpoint to lift the PORV's. The proposed OMS Setpoint is based on the May 1989 revision of the heatup and cooldown pressure-temperature (P-T) limit curves and the current PORV opening time. The proposed OMS setpoint is calculated such that during the most limiting postulated overpressurization event, the system pressure will remain below the allowable P-T limits.

In the event of conflict, the information in Amendment Application No. 172 supersedes the information previously submitted.

Based on the significant hazards analysis provided in the Description and Significant Hazards Consideration Analysis of Proposed Change No. 172, it is concluded that (1) the proposed change does not involve a significant hazards consideration as defined in 10 CFR 50.92, and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change.

Subscribed on this 3rd day of July, 1989.

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

By: Kenneth P. Baskin

Kenneth P. Baskin
Vice President

Subscribed and sworn to before me this 3rd day of July 1989.

Agnes Crabtree
Notary Public in and for the County of
Los Angeles, State of California

OFFICIAL SEAL
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY (San Onofre Nuclear Generating Station, Unit No. 1)	))))	Docket No. 50-206

CERTIFICATE OF SERVICE

I hereby certify that a copy of Amendment Application No. 172 was served on the following by deposit in the United States Mail, postage prepaid, on the 3 day of July, 1989.

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DESCRIPTION AND SIGNIFICANT HAZARD CONSIDERATION ANALYSIS OF PROPOSED CHANGE NO. 210 TO THE TECHNICAL SPECIFICATION PROVISIONAL OPERATING LICENSE NO. DPR-13

This is a request to revise Specification 3.20, " Overpressure Protection Systems," of the Appendix A Technical Specifications for San Onofre Nuclear Generating Station, Unit 1.

DESCRIPTION OF CHANGE

Technical Specification 3.20, "Overpressure Protection System," provides protection against exceeding 10 CFR 50 Appendix G system pressure limits at low temperature in the event of a pressure transient while the system is near or at a water-solid state. Proposed Change No. 210 revises the Overpressure Mitigating System (OMS) setpoint to lift the PORV's from the current value of 500 psig to 420 psig based on the May 1986 revision of the heatup and cooldown pressure-temperature (P-T) limit curves of Specification 3.1.3 and a PORV opening time of 2.5 seconds which bounds the maximum PORV opening time of 2.27 seconds. The PORV lift setting is calculated such that during the most limiting postulated overpressurization event the system pressure will remain below the allowable P-T limits. The OMS setpoint is given in Specification 3.20 A(1). The footnote to specification 3.20 is also revised to state the new OMS setpoint.

EXISTING TECHNICAL SPECIFICATION

See Attachment 1

PROPOSED TECHNICAL SPECIFICATION

See Attachment 2

SIGNIFICANT HAZARD CONSIDERATION ANALYSIS

As required by 10 CFR 50.91(a)(1), this analysis is provided to demonstrate that a proposed license amendment to revise the OMS setpoint in section A(1) and the footnote to the Specification 3.20 does not represent a significant hazard consideration. In accordance with the three factor test of 10 CFR 50.92 (c), implementation of the proposed license amendment was analyzed using the following standards and found not to: 1) involve a significant increase in the probability or consequences for an accident previously evaluated; or 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

The OMS setpoint is calculated such that the peak pressure produced by the most limiting postulated overpressurization transient will not exceed the design conditions of the reactor vessel while operating at low temperatures. The overpressurization transients evaluated were inadvertent reactor coolant pump start, inadvertent safety injection actuation, and the charging/letdown mismatch. The inadvertent actuation of the safety injection was addressed in the letter dated March 7, 1978, "Docket No. 50-206 Reactor Vessel Overpressurization San Onofre Nuclear Generating Station Unit 1." This submittal discusses the administrative controls in effect which minimize the possibility of an inadvertent SI actuation during low temperature operation while the OMS is armed. The pressure overshoot caused by a postulated overpressurization transient was calculated using the Westinghouse methodology discussed in WE report dated July, 1977, "Pressure Mitigating Systems Transient Analysis Results." The calculations indicated that the charging/letdown mismatch was the limiting postulated overpressurization transient for San Onofre Unit 1. The pressure overshoot was calculated based on a water solid primary system. The analysis assumed the most limiting single active failure which was determined to be the failure of one PORV to open. The OMS setpoint calculations were performed based on the requirements and criteria stated in the Branch Technical Position RSB 5-2, "Overpressurization Protection Of Pressurized Water Reactors While Operating At Low Temperature."

In May 1989, while SONGS 1 was in the Cycle 10 refueling outage a review of the Inservice Testing (IST) program led to the determination that the OMS setpoint of 500 psig was calculated based on a non-conservative PORV opening time of 2 seconds and the May 1984 revision of the heatup and cooldown curve rather than the May 1986 revision of the curves. The design calculation was revised to determine the new OMS setpoint using a PORV opening time of 2.5 seconds which bounds the maximum PORV opening time of 2.27 seconds measured in the April 4, 1989 testing of the valves, and the heatup and cooldown curves in Specification 3.1.3 which the NRC issued as Amendment No. 92 on May 21, 1986. The OMS setpoint was revised in accordance with the requirements of the Branch Technical Position RSB 5-2 "Overpressurization Protection Of Pressurized Water Reactors While Operating At Low Temperature", and other applicable conditions stated in SRP 5.2.2. The OMS setpoint was determined to be 420 psig. After consultation with the NRC, SCE placed administrative controls on the OMS setpoint to maintain the setpoint at 420 psig. The administrative control will remain in place until the subject proposed change has been approved and an amendment is issued by the NRC.

ANALYSIS

Conformance of the proposed changes to the standards for a determination of no significant hazard as defined in 10 CFR 50.92

(three factor test) is shown in the following:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

RESPONSE: No

This change will reduce the OMS setpoint from 500 psig to 420 psig to be in accordance with the heatup and cooldown curves of Technical Specification 3.1.3 and a PORV opening time of 2.5 seconds. Operation of the facility in accordance with this change will not affect the accidents analyzed in the UFSAR. The proposed change to the OMS setpoint will ensure that in the event of the most limiting overpressurization transient, system pressure will remain below the heatup and cooldown P-T limit curves of Specification 3.1.3. This change does not impact accident probabilities since the function of the OMS is of a mitigating nature. This change also has no effect on the accident analysis since the OMS is only armed in modes 4 and 5 to perform a mitigating function.

2. Will operation of the facility in accordance with this change create the possibility of a new or different kind of accident from any accident previously evaluated?

RESPONSE: No

This proposed change revises the OMS setpoint to be in agreement with the heatup and cooldown P-T curves of Specification 3.1.3 and a PORV opening time of 2.5 seconds. The OMS provides a mitigating function when the system is operating at low temperatures. This change will only bring the OMS setpoint into compliance with the requirements of the Technical Specification and does not affect the Design Basis Accidents. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

RESPONSE: No

This modification reduces the OMS setpoint from 500 psig to 420 psig as calculated based on the P-T curves of Specification 3.1.3 and a PORV opening time of 2.5 seconds which bounds the recently measured PORV maximum opening time. This change ensures that the margin of safety is maintained by bringing the OMS setpoint into compliance with the

requirements of the Technical Specification. The proposed change will also remove the non-conservatism in the opening time assumed for the PORV's. Therefore the proposed change does not involve a significant reduction in a margin of safety.

SAFETY AND SIGNIFICANT HAZARD CONSIDERATION DETERMINATION

Based on the preceding analysis, it is concluded that: (1) Proposed change No. 210 does not involve a significant hazard consideration as defined by 10 CFR 50.92; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change.

Attachment 1 - Existing Specifications

Attachment 2 - Proposed Specifications

ATTACHMENT 1

EXISTING TECHNICAL SPECIFICATION

3.20 OVERPRESSURE PROTECTION SYSTEMS

APPLICABILITY: Applies to operability of the overpressurization protection systems.

OBJECTIVE: To preclude the potential for exceeding 10 CFR 50, Appendix G, in the event of a pressure transient while water-solid.

SPECIFICATION:

A. When the RCS pressure is ≤ 400 psig* and pressurizer water level is greater than 50%, at least one of the following overpressure protection systems shall be operable:

(1) Two power operated relief valves (PORVs) with a lift setting of ≤ 500 psig,** or

(2) A reactor coolant system vent(s) of ≥ 1.75 square inches.

B. With one PORV inoperable when required in accordance with Specification A above, either restore the inoperable PORV to operable status within seven days or depressurize and vent the RCS through a 1.75 square inch vent(s) within the next eight hours; maintain the rCS in a vented and tagged condition until both PORVs have been restored to operable status. 103 5/23/88

C. With both PORVs inoperable when required in accordance with Specification A above, depressurize and vent the RCS through at least a 1.75 square inch vent(s) within eight hours; maintain the RCS in a vented and tagged condition until both PORVs have been restored to operable status.

D. In the event either the PORVs or the RCS vent(s) are used to mitigate a potential RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances indicating transient, the effect of the PORVs or vent(s) on the transient and any corrective action necessary to prevent recurrence.

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* The placing in service of the OMS at ≤ 400 psig is intended to assure that protection is provided whenever temperature is below 360°F. The alarm to arm the OMS being keyed to pressure assures that inadvertent opening of the PORVs does not occur due to placing the OMS into service with RCS pressure above the 500 psig initiation setpoint.

** The 500 psig setpoint is based on the current heatup and cooldown curves for 16 EFPY. The setpoint requires reevaluation for acceptability any time the curves are changed.