



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 102 TO PROVISIONAL OPERATING LICENSE NO. DPR-13

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-206

1.0 INTRODUCTION

By letter dated October 20, 1978, Southern California Edison Company (the licensee) submitted Proposed Change No. 71 to the Technical Specifications for San Onofre Nuclear Generating Station Unit 1. The proposed Technical Specification changes were required to implement the Overpressure Mitigation System (OMS) on Unit 1. By letter dated October 28, 1982 the staff provided a safety evaluation report which approved the proposed changes with two conditions. By letter dated May 8, 1984 the licensee provided a clarification of Proposed Change No. 71 which addressed the staff's conditions. In addition, an event involving the OMS revealed that the Power Operated Relief Valve (PORV) low pressure setpoint was non-conservative. A recalculation of the setpoint was performed and a revised setpoint is proposed.

2.0 DISCUSSION/EVALUATION

The staff's evaluation (letter dated October 28, 1982) found that the OMS as installed by the licensee was acceptable contingent on two modifications to the proposed Technical Specifications as follows:

1. to require that a channel functional test be performed prior to entering Mode 5 on cooldown and that operability of the system be tested prior to returning to the water solid condition following a cold shutdown with the reactor coolant system depressurized, and
2. if the water level in the pressurizer is greater than 80% or if the initial reactor system coolant pressure is less than 400 psig, the temperature gradient between the secondary side of the steam generator and the reactor coolant system is to be verified to be no greater than 50°F before a reactor coolant pump is started.

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Proposed Specification 3.15, Overpressure Protection System, has been altered by adding a fourth item to the surveillance portion of the Specification which states:

"Each power operated relief valve be demonstrated operable by:

- (2) Performance of a channel test within 31 days prior to enabling the overpressure mitigation setting of the pressurizer PORV's on cooldown."

The previously proposed specification included demonstration of operability prior to returning to a water solid condition after cold shutdown. We conclude that the revised proposed Specification 3.15 meets the first condition of the safety evaluation and is acceptable.

The licensee proposes to clarify the meaning of the term "system temperature gradients" in Technical Specification 3.1.2 by adding the statement "system temperature gradient is equivalent to a 50°F temperature differential between the secondary and primary systems." The Bases for the Specification are expanded to list the methods by which the acceptability of the temperature gradient is verified. The Specification is renumbered from 3.1.2 (E) to 3.1.2 (G) to account for the fact that 3.1.2 (E) and 3.1.2 (F) have been added to the Specification in the interim. We conclude that the proposed changes to this Specification meet the second condition of the safety evaluation and are acceptable.

As the result of a low temperature pressurization event which occurred on November 10, 1983 (LER 83-005) it was determined that the original analysis used to obtain the Power Operated Relief Valve (PORV) setpoint was non-conservative. In particular, the amount of pressure overshoot after the setpoint was reached was underestimated due to an underestimate of the amount of flow from a single charging pump. A conservative value of charging pump flow equal to the charging flow into an unpressurized Reactor Coolant System was obtained and the PORV setpoint required to assure that the RCS pressure safety limit is not exceeded was recalculated. A copy of the calculation performed was provided by the licensee. The techniques and procedures used are those commonly used for these calculations and are acceptable. The resultant setpoint is 500 psi and the Specification 3.15.A(1) has been altered to reflect the new value. This is acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 this amendment involves no significant hazards consideration and there has been no

public comment on such finding. Accordingly, this amendment meets 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 this amendment.

#### 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,  
(2) such activities will be conducted in compliance with the Commission's regulations and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: F. Apicella

Dated: May 23, 1988