



50-361/362

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

April 11, 1996

Mr. Harold B. Ray
Executive Vice President
Southern California Edison Company
San Onofre Nuclear Generating Station
P. O. Box 128
San Clemente, California 92674-0128

SUBJECT: APPLICATION OF LEAK-BEFORE-BREAK TECHNOLOGY TO REACTOR COOLANT
SYSTEM PIPING AT SAN ONOFRE NUCLEAR GENERATING STATION,
UNITS 2 AND 3 (TAC NOS. M92949 AND M92950)

Dear Mr. Ray:

By letter dated April 17, 1995, Southern California Edison Company (SCE or the licensee) submitted for NRC approval, its plant-specific applicability of Combustion Engineering Topical Report, CEN-367A, "Leak-Before-Break Evaluation of Primary Coolant Loop Piping in Combustion Engineering Designed Nuclear Steam Supply Systems," to San Onofre Nuclear Generating Station, Units 2 and 3. Topical Report CEN-367A was previously approved by the NRC with a condition that licensees referencing it should submit information to demonstrate that leakage detection systems installed at the specific facility are consistent with Regulatory Guide (RG) 1.45, "Reactor Coolant System Pressure Boundary Leakage Detection Systems." SCE's April 17, 1995, submittal is intended to demonstrate that San Onofre Units 2 and 3 satisfy this condition and, therefore, leak-before-break (LBB) technology may be applied to eliminate the dynamic effects associated with high-energy pipe ruptures in the reactor coolant system (RCS) piping from the licensing and design bases of these two units. Specifically, the licensee requests NRC's approval to (1) remove pipe whip restraints from the RCS loop, (2) eliminate jet impingement loads from the RCS piping and branch lines connected to the RCS, and (3) relax the in-service testing criteria for the reactor coolant pump snubbers and steam generator hydraulic snubbers.

The staff concludes that Topical Report CEN-367A is applicable to the reactor coolant system piping of San Onofre 2 and 3. The staff notes that SCE is in the process of upgrading one of its three independent leakage detection systems, the gas channel method, with a state-of-the-art more responsive design. This new system will provide for greater sensitivity and faster response times compared to the current gas channel method system. The licensee intends to utilize the LBB methodology prior to the completion of this design change for both units, and will rely on the current leakage detection systems, two which fully meet the RG requirements, for monitoring RCS leakage during this interim period. The staff agrees that the LBB methodology can be employed at San Onofre Units 2 and 3 in the interim with the current gas channel monitoring system, based on the availability of redundant and diverse RCS leakage detection systems. The staff also notes that NUREG-1432, "Standard Technical Specifications for Combustion Engineering Plants," which has been adopted by the licensee, only requires two diverse leakage detection systems to be operable during plant operations.

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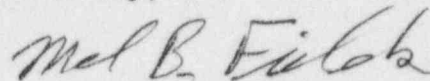
Mr. Harold B. Ray

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The licensee may, therefore, eliminate primary loop pipe rupture from the design basis for San Onofre Units 2 and 3, remove pipe whip restraints from the RCS loop, and eliminate jet impingement loads from the RCS piping and branch lines connected to the RCS.

The third request, relaxation of in-service testing criteria for certain snubbers, cannot be evaluated at this time because of lack of specificity in the licensee's request. This completes the staff's efforts in regard to TAC Nos. M92949 and M92950.

Sincerely,



Mel B. Fields, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-361
and 50-362

Enclosure: Safety Evaluation

cc w/encl: See next page

Mr. Harold B. Ray

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cc w/encl: See next page

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