Southern California Edison Company

23 PARKER STREET

IRVINE, CALIFORNIA 92718

R. M. ROSENBLUM
MANAGER OF
NUCLEAR REGULATORY AFFAIRS

TELEPHONE
(714) 454-4505

February 8, 1991

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: **Docket No. 50-206**
Containment Pressure
San Onofre Nuclear Generating Station, Unit 1

This letter provides information regarding our revised containment pressure and temperature analyses, the revised containment design pressure, and the pressure at which future containment leak rate testing will be performed. This informational letter was requested by Mr. James E. Tatum of the NRC staff and does not require action by the NRC staff.

CONTAINMENT PRESSURE TEMPERATURE ANALYSES

We have revised the analyses which determine the peak pressure and temperature conditions inside containment following a main steamline break (MSLB) and a Loss of Coolant Accident (LOCA). Revision of these analyses was required as a result of our updated single failure analysis which required plant modifications to lower the flow rate in the containment spray system. The results of the revised analyses are as follows:

	PEAK PRESSURE (psig)	PEAK TEMPERATURE (°F)
LOCA	51.7	304
MSLB	52.0	413
$MSLB_1$	52.0	387

A017
1/0

The $MSLB_1$ analysis credits 8% condensate revaporization (per NUREG 0588) and is used to determine the peak MSLB conditions for use in the environmental qualification of required equipment inside containment. The qualification of required components at the new peak conditions is in final review and will be completed prior to return to service from the present refueling outage.

CONTAINMENT DESIGN PRESSURE

We have completed an evaluation revising the containment design pressure to 52.7 psig. The new design pressure envelopes the LOCA and MSLB peak pressures. Our previous containment design pressure was 51.0 psig consistent with the peak LOCA pressure of 49.4 psig. The containment stress analysis results for the 51.0 psig design pressure were submitted on January 19, 1977 and February 4, 1977. This analysis was based on the tensile stress limit using the actual test results of the shell material and the ASME code.

As part of determining a new containment design pressure of 52.7 psig, we have reevaluated the shell stress results for the 51.0 psig value. We used an allowable membrane stress intensity based on the 1963 ASME code (the code used for the original sphere design) which is higher than the tensile stress limit used in the previous analysis for 51.0 psig. Using the allowable limits from the 1963 code, we have shown that the stresses in the containment sphere at the new design pressure of 52.7 psig are acceptable. The stresses in the containment penetrations have also been evaluated and shown to be acceptable at 52.7 psig.

CONTAINMENT PRESSURE TESTING

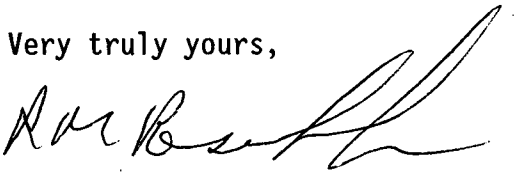
Technical Specification 4.3.1, "Containment Testing" currently states that the test pressure for containment integrity testing shall be at least 49.4 psig. A containment integrated leak rate test (ILRT) is scheduled to be performed at a minimum pressure of 52.0 psig. This test will be performed in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-(1972) and ANSI/ANS-56.8-1987. The local leak rate testing (LLRT) performed earlier in the outage will also be redone at the new minimum pressure.

The revised containment analyses were discussed with Mr. James. E. Tatum and later with Mr. George Kalman at the NRC. We agreed to perform the containment ILRT and LLRT's with the new minimum test pressure prior to return to service and to submit a proposed change incorporating the new design pressure into the technical specifications after return to service. We will prepare a revision

to the technical specifications changing the minimum test pressure and will submit a proposed change within two months after return to service from the Cycle 11 refueling outage.

If you have any questions, please do not hesitate to call me.

Very truly yours,



cc: George Kalman, NRC Project Manager, San Onofre Unit 1
J. B. Martin, Regional Administrator, NRC Region V
C. W. Caldwell, NRC Senior Resident Inspector, San Onofre Units 1, 2 & 3
C. D. Townsend, NRC Resident Inspector, San Onofre Unit 1