Southern California Edison Company

23 PARKER STREET

IRVINE, CALIFORNIA 92718

WALTER C. MARSH
MANAGER OF NUCLEAR REGULATORY AFFAIRS

TELEPHONE
(714) 454-4403

November 17, 1993

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

Gentlemen:

Subject: Docket Nos. 50-361 and 50-362
Emergency Core Cooling System
Annual 10 CFR 50.46 Report
San Onofre Nuclear Generating Station
Units 2 and 3

Reference: December 29, 1992, letter from Walter C. Marsh (SCE) to Document Control Desk (NRC), Subject: Docket Nos. 50-361 and 50-362, Emergency Core Cooling System Annual 10 CFR 50.46 Report San Onofre Nuclear Generating Station, Units 2 and 3

This letter transmits the 1992 San Onofre Units 2 and 3 report required by paragraph (a)(3)(ii) of 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light water nuclear power reactors." By the above reference, Southern California Edison (SCE) transmitted the annual reports for 1988, 1989, 1990, and 1991.

Enclosure 1 (CENPD-279, Supplement 4, Revision 1) describes the changes and errors in the ABB Combustion Engineering (CE) codes and methodology for Emergency Core Cooling Systems (ECCS) analysis in 1992. The report indicates there were no errors or changes to any models or methods used by CE for the Loss of Coolant Accident (LOCA) analysis. The computer type used by CE in 1992 to perform ECCS analysis was changed from a Control Data Corporation (CDC) mainframe to a Hewlett Packard/Apollo Workstation (HP/Apollo WS). The results calculated on the HP/Apollo WS are equivalent to those calculated on the CDC mainframe for the purpose of calculating Peak Cladding Temperature (PCT) for large and small break LOCAs, and for demonstrating compliance with Criterion 5 of 10 CFR 50.46 for long term cooling. The integral effect on PCT for the limiting large break LOCA when the entire ECCS calculational sequence was performed using the HP/Apollo WS is 0.26°F.

9312010071 931117
PDR ADOCK 05000361
P PDR

A001

The maximum cladding temperature for small break LOCA has not changed, and there have been no changes in the post-LOCA long term cooling results that affect the availability of adequate cooling water.

Enclosure 2 provides a summary of the effect on PCT of 1) the errors or changes to the ECCS evaluation model reported under 10 CFR 50.46 from 1988, when the reporting requirements of 10 CFR 50.46 were revised, through 1992 and 2) the changes to plant specific input assumptions for the limiting large break LOCA evaluated under 10 CFR 50.59 since the Cycle 3 Reference Cycle analysis was approved by the NRC in 1986. The arithmetic sum of both the 10 CFR 50.46 and 10 CFR 50.59 changes is a +58°F effect on the reference cycle large break LOCA analysis PCT. Therefore, the large break LOCA PCT as of the end of 1992 is 2174°F (2116°+ 58°F), which is less than the Cycle 1 Analysis of Record PCT of 2183°F indicated in the Updated Final Safety Analysis Report and below the 10 CFR 50.46 acceptance criterion PCT of 2200°F.

If you have any questions or need additional information on this report, please let me know.

Sincerely,

Walter C. Marsh

Enclosure

cc: B. H. Faulkenberry, Regional Administrator, NRC Region V
NRC Senior Resident Inspector's Office, San Onofre Units 2 and 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3

ENCLOSURE 1

CENPD-279, SUPPLEMENT 4, REVISION 1