

Southern California Edison Company



P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

M.O. MEDFORD
MANAGER, NUCLEAR LICENSING

February 21, 1984

TELEPHONE
(213) 572-1749

Director, Office of Nuclear Reactor Regulation
Attention: D. M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Overpressure Event
Licensee Event Report No. 83-005
San Onofre Nuclear Generating Station
Unit 1

Reference: Letter, J. G. Haynes, SCE, to J. B. Martin, NRC, dated
December 16, 1983

The referenced letter provided the NRC Region V office with the results of a calculation of the RCS peak pressure. This pressure of 520 psig resulted from an event described in the subject LER.

In subsequent discussions with members of the NRR staff, a copy of the calculation package was requested. Enclosed is a copy of the calculations performed to verify the RCS peak pressure. As stated in the calculation package, three methods were used to identify and confirm RCS peak pressure. The intent of the calculations was to independently verify the adjusted pressure as indicated on the chart recorder. The first method used to determine the peak RCS pressure was a calibration check done by recording the pressure recorder readings at known pressure inputs. The second method was an analytical calculation of the peak pressure done by conservatively assuming that only the one inservice PORV functioned. The third method was also an analytical calculation that assumed that both the inservice PORV and RV 206 on the RHR system operated as expected. The results of the calculations verify that the Appendix G limits were not exceeded and that the adjusted recorded RCS peak pressure of 520 psig is accurate.

As described in the subject LER, this event was caused by an error during returning the Safeguard Load Sequencing System Number 2 to operation after maintenance. The spurious safety injection signal that was generated caused the opening of the charging header flow control valve. Once the valve opened, the discharge pressure of the charging pump decreased which caused the second charging pump to start automatically. The end result of the opening of the flow control valve was the rapid pressurization of the RCS. In performing

8402240006 840221
PDR ADOCK 05000206
PDR

100-
11

February 21, 1984

the calculations discussed above, we determined that the charging pump flow rate was greater than the flow rate originally assumed in designing the Overpressure Mitigation System (OMS). In the original analysis, the scenarios that were assumed included (1) safety injection from the feedwater/safety injection pumps, and (2) an isolation of letdown during normal charging conditions. In the case of (1) above, Technical Specifications were implemented to assure two positive barriers between the Safety Injection System and the RCS. In the case of (2) above, 110 gpm of charging flow was assumed based on the flow being under manual control. However, the inadvertent safety injection signal caused flow under automatic control resulting in the higher than assumed charging flow.

We are currently analyzing the effect of the higher charging flow on the OMS. The results of this analysis and any corrective actions will be provided by March 1, 1984.

A supplement to the subject LER has been submitted to the Regional NRC Office reporting our determination discussed above. If you have any questions concerning the above information, please let me know.

Very truly yours,



Enclosure

cc: J. B. Martin, USNRC, Region V
A. E. Chaffee, USNRC Resident Inspector Units 1, 2 and 3