Docket

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

August 25, 1988

MEMORANDUM FOR: Dennis F. Kirsch, Director
Division of Reactor Safety
and Projects

FROM: Gary M. Holahan, Assistant Director
for Regions III and V
Division of Reactor Projects - III,
IV, V and Special Projects

SUBJECT: EVALUATION OF LICENSEE ACTIONS REGARDING WKM MAIN STEAM ISOLATION VALVES AT SAN ONOFRE UNITS 2 AND 3 (TIA-RV-88-13)

Preliminary Notification PNO-IV-88-28, dated April 13, 1988, identified that the Waterford 3 MSIVs had sustained significant damage during normal valve operation. The MSIVs used for San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 are of the same design as those used at Waterford 3. Southern California Edison (SCE) has evaluated the condition of the SONGS 3 MSIVs by performing a borescopic examination of the internals of both valves, by disassembling the B MSIV, and by performing a dynamic impact analysis. SCE has concluded that the SONGS MSIVs which stroke slower than 3.0 seconds are not subject to the failure experienced by Waterford 3. SCE intends to (1) examine the Unit 2 MSIVs by borescope in the next Mode 5 outage of greater than seven days duration, (2) evaluate the modifications made to the Waterford 3 MSIVs for implementation at SONGS, and (3) consider placing an orifice into the common hydraulic fluid dump line on each MSIV to limit the valve stroke time.

By letter dated June 16, 1988 (TIA-RV-88-13) you requested that we assume lead responsibility for evaluating the adequacy of SCE's intended actions. We have observed SCE's disassembly of the B MSIV and their borescopic examination of the A MSIV, we have thoroughly reviewed their "Root Cause Analysis" and their "Inspection Results of SONGS-3 MSIV-8205" reports, and we have held several discussions with SCE technical personnel. Based upon these inputs we have reached the conclusions described below.

The damage observed in the SONGS 3 B MSIV was much less severe than that seen in the Waterford MSIVs. The borescopic examination of the A MSIV provides some confidence that the valve is not in significantly worse condition than the B valve. The MSIVs of Waterford, although sustaining significant damage, were nevertheless apparently capable of performing their safety function. For these reasons, we find it acceptable to continue operation of Unit 2 and to return Unit 3 to service following the completion of the current refueling outage.

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The licensee's intention to perform only borescopic examinations of the Unit 2 MSIVs, however, is not acceptable. When the B MSIV on Unit 3 was disassembled, the actual condition of the valve intervals was quite different from what was concluded based upon the borescopic examination. We have requested the licensee to investigate techniques for expanding the coverage and for significantly improving the reliability of the borescopic examination. Unless SCE can demonstrate a more accurate examination, we will require disassembly of at least one MSIV during the Unit 2 Cycle 5 refueling outage.

We are not convinced that the licensee's analyses have accurately pinpointed the root cause of the valve damage. Further investigation into the root cause must be a part of the evaluation of potential design modifications. We will thoroughly review these evaluations with SCE to ensure this happens.

This letter serves to close out TIA-RV-88-013. However, we will continue to follow closely the licensee's resolution of this issue.

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*See previous concurrence

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