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U. S. Nuclear Regulatory Commission
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Subject: Docket No. 50-362
Special Report
San Onofre Nuclear Generating Station, Unit 3

This report is being submitted in accordance with Technical Specification (TS) 3.7.8.2, Action b, of Facility Operating License NPF-15, San Onofre Unit 3. The TS requires Southern California Edison (SCE) to submit a Special Report when the spray and/or sprinkler system inside containment becomes inoperable for more than 24 hours whenever equipment protected by the spray/sprinkler system is required to be operable.

Each of the four Unit 3 reactor coolant pumps (RCPs) is provided with a deluge valve and a manual block valve inside containment for its spray/sprinkler system. Also provided for the Spray/sprinkler system is a control room operated fire suppression water isolation valve outside containment. During normal operations, the manual block valves are normally opened and the control room operated fire suppression water isolation valve is normally closed. In the event of a fire inside containment, each deluge valve may be actuated/tripped open automatically by heat sensing fire detectors or manually by the manual pull lever station located at the deluge valve. Actuation of the deluge valve by either method initiates simultaneous alarms in the control room (CR) and in the emergency service office (ESO). The CR alarm signals the CR operator to initiate appropriate actions (i.e, open the normally closed fire suppression water isolation valve to supply water to the deluge valves and fire hose stations). The ESO alarm alerts emergency service personnel for appropriate fire department response.

At 1800 on July 6, 1990, with Unit 3 in Mode 5, three out of four RCP spray/sprinkler deluge valves failed to initiate CR and ESO alarms during surveillance trip testing of the valves from their local manual pull lever station. This deficiency would not have affected the automatic function of the RCP deluge valves, however, the absence of the alarms would have resulted in no response from the CR operator or the ESO.

To allow troubleshooting and repairs, the deluge valves remained isolated (i.e., the manual block valves remained closed following the failed surveillance) as required by procedures and the RCP spray/sprinkler systems remained inoperable.

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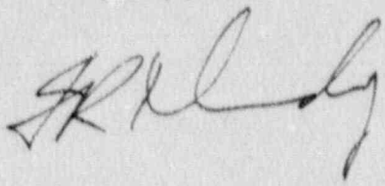
TS 3.7.8.2, Action b, 24-hour action requirement was entered at 0745 on July 7, 1990, when Unit 3 entered Mode 4 and the RCPs protected by the spray/sprinkler systems were required to be operable. This TS 24-hour action was not met since the minimum required RCP spray/sprinkler deluge valves remained inoperable.

The failure of the deluge valves to initiate alarms in the CR and ESO was due to paint in the deluge valve limit switch mechanism. The paint froze the limit switch arm preventing the arm from moving into the alarm initiating position after the valves were tripped from their manual pull lever stations.

The limit switches were cleaned, the deluge valves were trip tested from the manual pull lever stations satisfactorily, and the RCP spray/sprinkler systems were returned to service on July 11, 1990.

If you require any additional information, please let me know.

Very truly yours,



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