

April 16, 2004

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

**Subject: Docket No. 50-362  
Special Report  
Inoperable Reactor Vessel Water Level Instrumentation  
Southern California Edison (SCE)  
San Onofre Nuclear Generating Station, Unit 3**

Dear Sir or Madam,

Pursuant to Technical Specification (TS) 3.3.11, Post Accident Monitoring Instrumentation (PAMI), of Facility Operating License NPF-15 for San Onofre Nuclear Generating Station, Unit 3, this Special Report provides the required notification for one of two required channels of Reactor Vessel Water Level (RVWL) instrumentation being inoperable for greater than thirty days.

There are two PAMI channels of RVWL instrumentation. Each RVWL instrumentation channel has a probe consisting of eight discrete level sensors that are used to measure water level under accident conditions. The basic principle of the level sensors is the detection of a temperature difference between adjacent heated and unheated thermocouples. The Qualified Safety Parameter Display System (QSPDS) computer processes the level sensor inputs and provides the level indication on a display terminal in the control room.

On February 17, 2004, plant operators reported receiving sporadic alarms on the Unit 3 QSPDS Channel B. These alarms were traced to fluctuations in the temperature readings from the Heated Junction Thermocouple (HJTC) probe for the RVWL indication. Investigative testing and review of QSPDS input data revealed erratic behavior on several RVWL Channel B level sensors. Consequently, the Channel B RVWL indication was declared inoperable.

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The cause of the RVWL Channel B failure cannot be determined until the Channel B HJTC probe is removed. At that time, a cause evaluation will be conducted. As a temporary measure, SCE has taken the following actions to ensure continued monitoring capability of the RVWL PAMI function:

1. Power has been disconnected from the Channel B HJTC probe heater circuit to eliminate the potential for electrical grounds;
2. The annunciator circuit for "REACTOR HEAD/VESSEL LOW" has been modified to allow this annunciator to perform its function with input from the QSPDS Channel A HJTC only; and
3. A pre-planned alternate method of monitoring the RVWL PAMI function has been previously incorporated into Operating Instructions for use if the second channel of RVWL indication becomes inoperable

Since the RVWL Channel B instrumentation cannot be repaired with the plant in operation, SCE has scheduled to replace the faulty HJTC probe during the Unit 3 Cycle 13 Refueling Outage, which is currently scheduled to commence in September of 2004. This replacement, combined with restoration of instrument annunciator circuitry, is anticipated to fully restore the RVWL Channel B instrument to an operable condition.

If you have any questions, please contact myself or Mr. C. E. Williams at (949) 368-6707.

Sincerely,



cc: B. S. Mallett, Regional Administration, NRC Region IV  
B. M. Pham, NRC Project Manager, San Onofre Units 2 & 3  
C.C. Osterholtz, NRC Senior Resident Inspector, San Onofre Units 2 & 3