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September 12, 1988

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

Gentlemen:

Subject: Docket Numbers 50-361 and 50-362
Reply to a Notice of Violation and Notice of Deviation
San Onofre Nuclear Generating Station
Units 2 and 3

Reference: Letter, Mr. J. B. Martin (NRC) to Mr. Kenneth P. Baskin (SCE), dated August 12, 1988

The above referenced letter forwarded NRC Inspection Report Nos. 50-361/88-15 and 50-362/88-16, a Notice of Violation and a Notice of Deviation resulting from the routine inspections conducted by Messrs. F. R. Huey, J. E. Tatum, A. L. Hon, and A. D. Johnson during the period May 22 through July 2, 1988. In accordance with 10 CFR 2.201, Enclosures A and B to this letter provide the Southern California Edison (SCE) reply to the subject Notice of Violation and Notice of Deviation, respectively.

If you require any additional information, please so advise.

Very truly yours,

Kenneth P Baskin

Enclosures: as stated

cc: J. B. Martin, Regional Administrator, NRC Region V
F. R. Huey, NRC Senior Resident Inspector, San Onofre Units 1, 2 and 3

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ENCLOSURE A

REPLY TO NOTICE OF VIOLATION

Appendix A to Mr. J. B. Martin's letter, dated August 12, 1988, states in part:

"10 CFR Part 50, Appendix B, Criterion V provides, in part, that:

> 'Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.'

"Chapter 5C (Revision 10) of the licensee's TQAM, paragraph 8, states only measuring and test equipment evidencing a current calibration status shall be used for safety related activities.

"Paragraph 6.13.2.4 of Maintenance Procedure SO123-I-1.7 (TCN 2-2) states that the journeyman shall draw and inspect all measuring and test equipment to be used for the activity to ensure that the calibration date will remain valid for the duration of the activity, and shall record the instrumentation used on the maintenance order (MO).

"Contrary to the above requirements:

"1. On June 17, 1988, a strip chart recorder (M&TE #I2-9097) with a calibration due date of June 16, 1988, and a D. C. amplifier (M&TE #I2-8696) with a calibration due date of June 14, 1988, were being used to gather data to evaluate operability of the post-LOCA hydrogen monitoring system (Train B).

"2. The measuring and test equipment being used to evaluate the operability of the post-LOCA hydrogen monitoring system (Train B) was not recorded on the applicable MO, No. 88060605.

"This is a Severity Level IV violation (Supplement I)."

RESPONSE

1. Reasons for the violation, if admitted

SCE admits that contrary to procedure SO123-I-1.7, "Maintenance Order Preparation, Use And Scheduling," (A) measuring and test equipment (M&TE) was used which had expired stickers; and (B) the M&TE was not recorded on the maintenance order. SCE's investigation has established that there is no safety significance to this event. The facts and circumstances surrounding each of these issues are as follows:

A. Use of M&TE with Expired Calibration Stickers

SCE's investigation determined that the strip chart recorder and the DC amplifier were attached to the Train B post-LOCA hydrogen monitoring system to collect investigative information on June 8, 1988. When the I&C technician attached the strip chart recorder and the DC amplifier to the hydrogen monitoring system, he verified that their calibration stickers had not expired. He was aware that on or before the calibration due dates, they should be returned for calibration in accordance with the Station's M&TE recall program.

However, due to the investigative nature of the activity, it was not known and therefore not specified in the MO as to how long such information gathering would last.

The M&TE was left connected to the Hydrogen Monitoring System beyond the calibration due dates. The investigative information obtained on the Train B post-LOCA hydrogen monitor was not used to evaluate operability in accordance with Technical Specification surveillance requirements. Instead, the information gathered with this equipment was used by the cognizant engineer to develop potential corrective actions. Subsequent to these actions, Technical Specification operability surveillances were performed using M&TE within the required calibration due dates.

In summary, personnel error, exacerbated by the open-ended nature of the investigative activity, resulted in the use of the M&TE two days beyond its calibration due date. Notwithstanding this, the information gathered by the equipment was not used as the basis for determining operability.

B. M&TE Not Recorded on MO

Procedure SO123-I-1.7 is the general procedure governing the maintenance order control process. This procedure requires that the M&TE used be documented on the MO. In addition, procedures SO123-II-1.0, "Calibration And Control of Measuring And Test Equipment," and SO123-II-1.2, "Preparation and Responsibility of the M&TE Traveler," require that when M&TE is issued, a corresponding M&TE traveler is also issued to record the activities (maintenance order, construction work order, etc.,) for which the M&TE is used. These two procedures provided guidelines under which an M&TE could be considered "Not Used" and be recorded as such on the M&TE traveler. The technician erroneously believed that these guidelines provided the applicable guidance for recording "None" under the "Test Equipment/Special Tools Used" section of MO 88060605.

In summary, contrary to procedure SO123-I-1.7, the strip chart recorder and the DC amplifier used were not recorded on MO 88060605. This was caused by procedural ambiguity within and between procedures governing the work activities.

2. Corrective steps that have been taken and the results achieved

On June 17, 1988, the strip chart recorder and the DC amplifier were removed from the Train B post-LOCA hydrogen monitoring system.

This event was discussed with all appropriate Units 2/3 I&C technicians.

To be consistent with procedure SO123-I-1.7, which requires that all M&TE used be recorded in the MO, procedures SO123-II-1.0 and SO123-II-1.2 have been revised to require that all activities for which the M&TE is used, be recorded in the M&TE traveler.

3. Corrective actions that will be taken to avoid further violations

Regardless of the nature of the activities involved, the use of M&TE with a current calibration sticker is a matter of station policy and is required by station procedures. Clearly, the use of the M&TE with expired calibration stickers was contrary to the station policy and procedures. It is SCE's position to require the use of M&TE with a current calibration sticker. Consequently, a reading assignment, describing this event and emphasizing the need to verify that no M&TE will be used beyond its calibration due date, will be distributed to appropriate maintenance personnel.

Future investigative maintenance activities of indeterminate duration, which involve the use of M&TE, will include administrative controls to enhance the consideration given by technicians to the calibration due dates vis-a-vis the expected completion of the investigative effort.

These corrective actions are expected to be completed by November 15, 1988.

4. Date when full compliance will be achieved

Full compliance was achieved on June 17, 1988, when the M&TE with the expired calibration stickers was removed.

ENCLOSURE B

REPLY TO THE NOTICE OF DEVIATION

Appendix B to Mr. J. B. Martin's letter, dated August 12, 1988, states in part:

"Paragraph 9.1.2.2 of the Updated Final Safety Analysis Report (Revision 4) for San Onofre Nuclear Generating Station Units 2 and 3 states: 'All connections to the spent fuel storage pool are made as to preclude the possibility of siphon draining of the pool.'

"Contrary to the above, the fuel pool purification suction piping (015-4"-J-LLO) was found on June 22, 1988, to extend to the bottom of the spent fuel storage pool, and system features did not preclude the possibility of siphon draining of the pool."

RESPONSE

1. Reasons for the deviation, if admitted

SCE admits that the June 22, 1988 system alignment of the spent fuel storage pool piping did not preclude the possibility of siphon draining of the pool.

The design of the spent fuel storage pool was completed in 1979. In preparing the design to preclude the possibility of siphon draining of the pool, SCE utilized Section 9.1.1 of the NRC Standard Review Plan which permits either the use of siphon breakers/check valves or other devices such as locked valves coupled with administrative controls (procedures governing the use of the locked valves), to preclude a siphon event.

In the case of the spent fuel storage pool purification line, a combination of locked closed valves and administrative controls were intended to prevent inadvertent siphoning (notwithstanding that under certain circumstances the spent fuel pool skimmers may currently function as a siphon breaker). Valves MU076, MU100, and MU101 were designated as locked closed valves. The Piping and Instrumentation Drawings (P&IDs) were subsequently issued showing these as locked closed valves.

No basis was provided in the design documents which explained the necessity for locking these valves closed. Consequently, when a revision to the Operations procedure SO23-3-2.8.1, "Refueling Cavity Draining Operation", was prepared, the design intent of these valves was not fully understood.

In addition, the Final Safety Analysis Report (FSAR), Section 9.1.2.2, description of the spent fuel storage pool and cooling systems cited above does not provide a complete description of the design, including the use of administrative controls.

2. Corrective steps which have been taken and the results achieved

Updated design information regarding administrative controls for the spent fuel storage pool piping and valves has been provided to appropriate personnel.

Procedures regarding the operation of the spent fuel storage pool piping and valve alignments have been revised to include appropriate precautions and controls to prevent potential future siphon alignments.

3. Corrective steps which will be taken to avoid further deviations

A design modification is being evaluated to determine the feasibility and cost of a change to the system design to physically preclude the establishment of a siphon.

FSAR Section 9.1.2.2, "Spent Fuel Pool and Cooling Systems" will be revised at the next annual revision to describe the current design and the use of administrative controls.

Licensee Event Report (LER) number 88-017 (Docket No. 50-361), reported the siphoning event of June 22, 1988. As discussed in the LER, a revision to the LER is being prepared which will include the above corrective actions.

4. The date when corrective action will be completed

The revisions to applicable Operating procedures were completed on September 7, 1988.

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