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May 16, 1988

Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: Docket Nos. 50-206, 50-361 and 50-362  
Reply to a Notice of Violation  
San Onofre Nuclear Generating Station  
Units 1, 2 and 3

Reference: Letter, Mr. R. P. Zimmerman (NRC) to Mr. Kenneth P. Baskin  
(SCE), dated April 15, 1988

The above referenced letter forwarded NRC Inspection Report Nos. 50-206/88-03, 50-361/88-03, and 50-362/88-03 and a Notice of Violation resulting from the routine inspection conducted by Messrs. F. R. Huey, J. E. Tatum, and A. L. Hon during the period of January 17 through February 27, 1988. In accordance with 10 CFR 2.201, the enclosure to this letter provides the Southern California Edison (SCE) reply to the subject Notice of Violation.

The Notice of Violation contained one violation, Item A, for which no response was required. Accordingly, the enclosure does not provide a response for this item. It does provide the required response to violation Items B and C.

Violation Item B involved a failure to replenish nitrogen bottles supplying backup nitrogen to the Unit 1 Auxiliary Feedwater System flow control valves. During our investigations into the violation, information regarding potential design deficiencies in the Backup Nitrogen System was identified and has been reported in Licensee Event Report (LER) No. 88-06 (Docket No. 50-261). The response to violation Item B does not include the results of the evaluation of the design deficiency since LER No. 88-06 is intended to fully report the cause and corrective action relating to this issue.

If you require any additional information, please so advise.

Very truly yours,

*Kenneth P. Baskin*

Enclosure

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

Reply to the Notice of Violation

Appendix A to Mr. R. P. Zimmerman's letter, dated April 15, 1988, states in part:

ITEM B

- "B. Technical specification 6.8.1.c requires that written procedures be established, implemented and maintained covering surveillance and test activities of safety related equipment.

"Station operating procedure SO1-12.9-11, Temporary Change Notice (TCN) 4-17, specified surveillance testing requirements for the safety related backup nitrogen system for auxiliary feedwater system flow control valves FCV 2300, 2301, 3300 and 3301. In particular, step 6.5.12 of the procedure required that:

'If any cylinder falls below its minimum required pressure (2013 psig), then initiate maintenance to ensure the cylinder is replaced within the next 8 hours.'

"Contrary to the above, during the period between January 14 and February 1, 1988, one of the eight backup nitrogen system cylinders for the auxiliary feedwater system flow control valves was at a pressure less than the minimum required pressure, and proper maintenance was not initiated to correct a leaking cylinder regulator valve.

"This is a Severity Level IV violation, applicable to Unit 1 (Supplement I)."

RESPONSE

1. Reasons for the violation

SCE admits that a nitrogen cylinder fell below the minimum pressure of 2013 psig and was not replaced in eight hours. The slow loss of nitrogen from the cylinder was caused by a leaking regulator valve.

The leaking regulator valve had been identified in November, 1987 by SCE personnel. Parts to repair the leaking regulator were not available and were ordered from the manufacturer. Since the leakage was small and the bottles are checked every 8 hours (when in Modes 1-4), expedited efforts to repair the regulator valve were not warranted. It was considered appropriate to monitor the cylinder pressure and changeout the affected nitrogen bottle as needed. Upon receipt of the replacement parts, the regulator valve was repaired and returned to service on April 4, 1988.

The failure to replace a depleted cylinder within eight hours occurred as a result of an inappropriate interpretation of the function of the Backup Nitrogen System (BNS). When the procedure was written, the BNS was, erroneously, not recognized as affecting the Technical Specification operability of associated systems. It was believed that each system was "capable of performing its intended safety function" (the Technical Specification operable definition) because the non-seismic air supply was always available and fully capable of performing its function.

On July 15, 1982, when the surveillance procedures was written, it was the intent of the procedure to implement the Backup Nitrogen System (BNS) design by replacing the nitrogen bottles on an as-needed basis only. Specifically, Rev. 0 procedure step 6.2.18.6 stated "If any cylinder falls below its minimum required pressure, initiate a maintenance order to replace the cylinder." A subsequent revision (TCN 3-8, dated January 22, 1985) incorporated the present wording to initiate the maintenance order during the shift. TCN 3-8 can be read to require replacement within eight hours, however, the procedure writer's intent and common interpretation among operators was that replacement had to be initiated within eight hours.

Consequently, the procedure and subsequent training and instructions to operations personnel established that depleted nitrogen cylinders (other than for the pressurizer PORVs and block valves) did not have a hard "time clock" on their replacement.

It should be noted that: (1) there are several operations surveillance procedures which only require notification of Maintenance (i.e., "initiate maintenance") of an unsatisfactory condition and do not have associated time limits; (2) a blanket Maintenance Order existed to replace depleted bottles on an as-found basis; and (3) if available, the cylinders were replaced on the next day shift (which usually occurred).

In summary, when a depleted bottle was discovered, operators believed (through training and instruction) that they were complying verbatim with the procedure if they reported the condition, or ensured it had been previously reported, within eight hours to Maintenance.

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

As discussed above, depleted nitrogen bottles on the Backup Nitrogen System, including the one with the leaking regulator valve, were replaced usually on the next day shift. The leaking regulator valve was repaired on April 4, 1988.

Operations personnel have received, through shift briefings, instructions that the cylinders must be replaced within eight hours of being found at less than the minimum bottle pressure.

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

Procedure S01-12.9-11 will be revised to provide clarity and specificity in intended actions, consistent with the shift briefings discussed above. This revision will be completed prior to return to Mode 4.

As discussed in Licensee Event Report No. 88-06 (Docket No. 50-206), SCE is reviewing the design basis for the Backup Nitrogen System. After this review is completed, procedural revisions will be made, as necessary, to clearly establish surveillance requirements and the operability of systems supported by the Backup Nitrogen System.

The administrative controls for translating design information into procedural requirements have been significantly enhanced since July 1982. Nevertheless, SCE will perform a review of the design change process and how design information is incorporated into operating procedures to identify if enhancements should be made.

4. Date when full compliance will be achieved

Full compliance was achieved on April 4, 1988, when the shift briefings and repair of the leaking regulator valve were completed.

ITEM C

"C. 10 CFR 50, Appendix B, Criterion V, states in part:

'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 1F of the licensee's Topical Quality Assurance Manual states the following requirement:

'1.0 Systems shall be established, implemented and controlled by written procedures to assure that conditions adverse to quality are identified, documented, evaluated and corrected in a timely manner and that action is taken to prevent recurrence of the condition...'

"General Procedure S0123-XV-5.0, TCN 1-5, titled Nonconforming Material, Parts or Components, paragraph 6.2.1.5, required that items found not to be in accordance with drawings or other design disclosure documents that are used in the plant are to be documented on a nonconformance report.

"Contrary to the above, the following nonconforming conditions were not documented on a nonconformance report:

- "1. On February 1, 1988, during disassembly of HPSI valve MU-012 on Unit 3, a mechanic identified that the yoke bushing was not tack welded as required by station valve drawing (3527-3, Revision D).
- "2. On February 4, 1988, during replacement of solenoid coil 2HY8205AX for MSIV 2HV-8205, an electrician identified that the electrical circuit was not labeled in accordance with the electrical circuit diagram (30548, Revision 13).

"This is a Severity Level IV violation, applicable to Units 2 and 3 (Supplement I)."

#### RESPONSE

1. Reasons for the violation, if admitted

SCE did not violate the referenced procedure. We come to this conclusion based on the following:

- a. the yoke bushing configuration (bushing being either staked or welded) was covered by the maintenance procedure controlling the work. Procedure SO123-XV-5.0, steps 6.2.2.2 and 6.2.2.3, in defining what does not need an NCR, includes: "Deviations or conditions anticipated and provided for in site procedures" and "...Deviations or discrepancies which can be corrected within the scope of the work function or procedure in progress..."

Maintenance procedure SO23-I-6.23, step 6.1.5 [valve disassembly] states "Remove the yoke sleeve (35) from the yoke (11). If secured by stake lock, remove the stake lock by peening or grinding. If secured by tack weld, remove tack weld by chiseling or grinding". Step 6.6.3.5 [valve reassembly] states "Stake lock the yoke sleeve (35) to the yoke (11)."

Although drawing 3527-3, Revision D does show a tack weld, this configuration is covered by procedure steps 6.1.5 and 6.6.3.5, and in accordance with NCR procedure step 6.2.2.3 does not require an NCR.

- b. Procedure SO123-XV-5.0, Step 6.2.1.5, only requires an NCR for conditions where either: (1) the drawing is discrepant but the field installation is correct [Case 1]; (2) the field installation is discrepant but the drawing is correct [Case 2]; or (3) it is indeterminate which one (field or drawing) is

incorrect [Case 3]. The NCR procedure does not define cases where the field installation and the drawing are correct but local labeling is discrepant, as a nonconforming condition.

The electrical circuit (in the field) and the electrical diagram 30548, Revision 13, were not in conflict. Only the possum tag labels were reversed. Therefore, procedure SO123-XV-5.0 does not require an NCR for this condition.

While we did not violate our procedures in the above actions, SCE agrees that such conditions, potentially adverse to quality, should be formally evaluated as required by the Topical Quality Assurance Manual.

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

SCE is reviewing applicable programs and procedures to better define when an NCR or Site Problem Report (SPR) are to be issued for such discrepancies. As a result of this review, procedure revisions are being considered to clarify that:

- a. An SPR will be issued whenever a drawing (except for those generic drawings where the vendor tech manual provides specific guidance) is found to contain inaccurate information even though the work procedure controlling the job provides for the as-found condition.
- b. An SPR will be issued for inaccurate labeling whenever design drawings can not establish the correct configuration (i.e., indeterminate labeling).

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

The enhancements to the NCR and SPR programs will be completed by July 15, 1988.

4. Date when full compliance will be achieved

Full compliance will be achieved by July 15, 1988.