Southern California Edison Company

P. O. BOX 800

2244 WALNUT GROVE AVENUE

ROSEMEAD, CALIFORNIA 91770

KENNETH P. BASKIN
VICE PRESIDENT

TELEPHONE
818-302-1401

July 11, 1988

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

Gentlemen:

Subject: Docket No. 50-206
Reply to a Notice of Violation
San Onofre Nuclear Generating Station
Unit 1

Reference: Letter from Mr. John B. Martin (USNRC) to Mr. Kenneth P. Baskin (SCE), dated June 10, 1988

The referenced letter forwarded a Notice of Violation and Proposed Imposition of Civil Penalty resulting from the special NRC inspection conducted between February 22 and March 30, 1988, of activities authorized by NRC License No. DPR-13. This inspection included a review of the program implemented at San Onofre Unit 1 to meet the environmental qualification (EQ) requirements of 10 CFR 50.49 for electrical equipment important to safety. This inspection was documented in NRC Inspection Report No. 50-206/88-10. In accordance with 10 CFR 2.201, the enclosure to this letter provides the Southern California Edison (SCE) reply to the Notice of Violation. SCE's check for $150,000, the amount of the proposed civil penalty, is also enclosed.

Mr. Martin's letter expressed concern that the noted EQ violations seem to reflect adversely on SCE's control of engineering and technical work and requested that SCE's response to the Notice of Violation include an assessment of controls to assure continuity of responsibility for engineering and technical work. SCE has established a task force which is currently

w/check $150,000
A-081419

IE14
1/1

investigating this area. The task force is expected to complete its activities in approximately sixty days. SCE will respond to this request after the task force has concluded its activities.

If you have any questions regarding SCE's response to the Notice of Violation or require additional information, please call me.

Respectfully submitted,

By: Kenneth P. Baskin
Kenneth P. Baskin
Vice President

Subscribed and sworn to before me this 11th day of July, 1988.

C. Sally Sebo
Notary Public in and for the County of Los Angeles, State of California

OFFICIAL SEAL
C. SALLY SEBO
Notary Public-California
LOS ANGELES COUNTY
My Comm. Exp. Apr. 20, 1990

Enclosures

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

ENCLOSURE

REPLY TO A NOTICE OF VIOLATION

The enclosure to Mr. Martin's letter dated June 10, 1988 states in part:

10 CFR 50.49(a) requires each holder of a license for operation of a nuclear power plant to establish a program for qualifying electric equipment identified in 10 CFR 50.49(b).

10 CFR 50.49(b) defines equipment important to safety and covered by 10 CFR 50.49 to include:

(1) Safety-related electric equipment (i.e., that equipment relied upon to remain functional during and following design basis events), and

(2) Non-safety-related electric equipment whose failure could affect the satisfactory fulfillment of safety functions.

10 CFR 50.49(d) requires the licensee to prepare a list of equipment covered under 10 CFR 50.49(a).

10 CFR 50.49(f) requires that each item of electric equipment be qualified by test and/or analysis to show that the equipment to be qualified is acceptable.

10 CFR 50.49(j) requires that a record of the qualification of electric equipment be maintained in a qualification file in an auditable form to permit verification that the equipment is qualified and that the equipment meets the specified performance requirements under postulated environmental conditions.

Contrary to the above, between November 30, 1985 and the date of this inspection:

A. The following electric components, required to be qualified pursuant to 10 CFR 50.49(b)(1), were not included in the licensee's master list of EQ equipment, and were not qualified by test and/or analysis:

1. Four safety injection miniflow valves (SV 17, SV 17A, SV 875A, and SV 875B).

2. Four safety injection miniflow valve position switches (ZSO 1875A, ZSO 1875B, ZSC 1875A, ZSC 1875B).

3. One auxiliary feedwater pump bearing-cooling water valve (SV 135).

4. Seven charging system flow control valves (SV 1112, SV 1115DA, SV 1115DB, SV 1115EA, SV 1115EB, SV 1115FA, and SV 1115FB).

5. Two charging system auxiliary spray valve converters (HY 1304 and HY 1305).

6. Four charging system auxiliary spray valve position switches (ZSO 1304, ZSO 1305, ZSC 1304, and ZSC 1305).

7. Three feedwater system block valves (MOV 20, MOV 21 and MOV 22).

8. Three feedwater system bypass valve solenoids (SV 149, SV 150 and SV 151).

9. Three feedwater system regulating valve solenoids (SV 456, SV 457 and SV 458).

10. Two auxiliary feedwater pump discharge valves (MOV 1202 and MOV 1204).

B. The following electric components, required to be qualified pursuant to 10 CFR 50.49(b)(2), were not included in the licensee's master list of EQ equipment, and were not qualified by test and/or analysis:

1. Twelve safety injection switchover valve air solenoids (SV 520, SV 521, SV 522, SV 523, SV 524, SV 525, SV 526, SV 527, SV 528, SV 529, SV 530, and SV 531).

2. Two charging system recirculation pump bearing water valves (SV 2077 and SV 3078).

3. Three charging system flow controllers (FY 1115A, FY 1115B and FY 1115C).

C. The following components were not qualified due to discrepancies between the tested/analyzed and installed configuration:

Main feedwater pump motor air filters.

D. The following electric components, required to be qualified pursuant to 10 CFR 50.49(b)(1), were not included in the licensee's master list of EQ equipment:

1. Two safety injection switchover valve bonnet vents (SV 2900 and SV 3900).

2. Two safety injection miniflow valves (SV 18 and SV 18A).

3. Four charging system flow controllers (FY 1112, FY 1115D, FY 1115E, and FY 1115F).

4. Three charging system recirculation flow indicators (FT 2114B, FT 2114C, and FT 3114A).

These violations constitute an EQ Category B problem.

RESPONSE

ADMISSION OR DENIAL OF THE VIOLATION

Southern California Edison Company admits the above noted violation.

REASON FOR THE VIOLATION

The EQML omissions were the result of incorrect application of the criteria of 10 CFR 50.49 (b)(1) and (b)(2) during the generation of the original EQML in 1980, and/or the failure of SCE's design control process to ensure consideration of environmental qualification requirements during subsequent plant modifications. The root cause of these deficiencies is currently being explored by SCE through the efforts of a special task force, which was developed to address the NRC's general concerns regarding SCE's control of engineering and technical work.

The original scope of the EQ program at San Onofre Unit 1 was defined in SCE's letter dated June 18, 1980 and supplemented by letters dated October 31, 1980 and November 4, 1981. SCE's official submittal (May 20, 1983) of a list of equipment which was required upon the effectiveness of 10 CFR 50.49, merely referred to the equipment identified in these previous letters. Although this list of equipment underwent a prolonged review by the NRC and its consultants, the Franklin Research Center, no verification of its adequacy by SCE was ever made. Furthermore, the list did not include equipment added as a result of TMI. Subsequently, the original scope of equipment reviewed by the NRC and the TMI equipment were combined to form the base EQ Master List which was reviewed by the NRC prior to plant startup in November, 1984. Again, no effort was made to check the accuracy of the list. The cause of this event was failure to utilize formal QA controls during the initial development and maintenance of the EQML and failure to reassess the list's validity prior to the May 20, 1983 and November 19, 1984 submittals to the NRC.

SCE's current design control processes for ensuring consideration of EQ for new equipment were not in place until January, 1984. As a result, some equipment added prior to that time, including TMI equipment, was not adequately reviewed for environmental qualification requirements and/or inclusion on the EQML. In other cases, equipment should have been added to the EQ Master List and qualified because of a redefinition of safety function based upon completion of additional reviews such as those undertaken pursuant to the NRC's Systematic Evaluation Program.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

In January, 1984, design control processes were implemented to ensure that plant modifications are evaluated for EQ requirements. A complete review of all installed electrical equipment for compliance with the requirements of 10 CFR 50.49 (b)(1) and (b)(2) has been completed. The review to the criteria of paragraph (b)(1) and (b)(2) of 10 CFR 50.49 of all safety-related electrical equipment associated with required systems but not currently on the EQML, has been comprehensive and rigorous. This review was independently verified by an outside consultant. Action has been initiated to add the components revealed by this review to the EQML as appropriate and work is underway to replace components with fully qualified equipment where

necessary. The above actions will be complete prior to return to service from the current outage with two exceptions as discussed below. Replacement of components associated with feedwater isolation which were addressed in SCE's letter dated November 6, 1987 are scheduled for replacement during the upcoming refueling outage along with other single failure items. In addition, as discussed in SCE's letter dated July 8, 1988 Justifications for Continued Operation have been prepared for two cable types; these items will also be resolved during the upcoming refueling outage.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

SCE has established a task force to broadly examine the engineering and design control process. The task force will make recommendations to SCE management, who will determine appropriate corrective action. The task force is expected to conclude its activities within sixty days. As indicated in the forwarding letter to this Notice of Violation, SCE will respond to these issues after the task force has concluded its activities.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Except as noted above, all discrepancies in environmental qualification set forth in this Notice of Violation will be corrected prior to restart of Unit 1 from its current outage.

0296H