Southern California Edison Company

P.O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

Director of Nuclear Reactor Regulation
Attention: Mr. D. L. Ziemann, Chief
Operating Reactors Branch No. 2
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Steam Generator Water Hammer
San Onofre Nuclear Generating Station
Unit 1

By letter dated February 14, 1980 we informed you that we would be performing an evaluation of the potential magnitude and effects of postulated water hammers at San Onofre Unit 1. As subsequently discussed with members of the NRC Staff, this program will include the development of forcing functions for classic textbook type water hammers such as valve closure and pump start. Steam generator water hammer as postulated by Creare will not be included as part of this evaluation. This evaluation is to be completed by September 30, 1980.

If you have any questions regarding this matter, please let me know.

Very truly yours,

J G Haynes

J. G. Haynes
Chief of Nuclear Engineering

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Southern California Edison Company

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ROSEMEAD, CALIFORNIA 91770

April 21, 1980

U. S. Nuclear Regulatory Commission
Region V
Suite 202, Walnut Creek Plaza
1990 North California Blvd.
Walnut Creek, California 94596

Attention: Mr. R. H. Engelken, Director

DOCKET No. 50-206
SAN ONOFRE UNIT 1

Dear Sir:

This letter describes a reportable occurrence involving the Emergency Power System. Submittal is in accordance with the reporting requirements stipulated in Section 6.9.2.b(2) of Appendix A to the Provisional Operating License DPR-13.

On March 24, 1980 at 1106 the No. 2 diesel generator was declared inoperable after fuel oil transfer pumps G-75A and G-75B experienced current overload trips while running for the purpose of obtaining fuel oil samples. Operability of two offsite transmission lines and the remaining diesel generator was successfully demonstrated within one hour as required by Technical Specification Section 3.7.2.B.

An investigation revealed that the sump pumps in the transfer pump vault had failed to operate allowing rain water to accumulate in the vault after a series of severe storms and to rise to the level of the transfer pump-motor coupling. Meggar readings were obtained for both transfer pumps and indicated that the current overload was not due to an electrical short circuit. The sump pumps were repaired and returned to service.

When the water in the vault was removed both transfer pumps were restarted and run successfully. Motor current readings taken at this time were verified to be at normal values. The transfer pumps were returned to service and the No. 2 diesel generator declared operable on March 24 at 1510.

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The high inservice current which resulted in the current overload trips was apparently due to the increased frictional drag caused by the water surrounding the pump-motor coupling. The meggar readings taken before the water was removed indicated that the water was not causing an electrical short circuit. Both pumps operated normally after the water was removed from the vault.

A review of the vault drainage system design will be performed. Corrective action taken as a result of this review will ensure adequate water removal from the vault. The evaluation noted above will be completed by July 1, 1980.

There was no degradation of plant safety during this incident as redundant systems were available. Plant operation with one operable diesel generator is permitted for up to 72 hours by Technical Specification 3.7.2.B.

If you should require additional information concerning this occurence, please contact me.

H. L. Ottoson
Manager of Nuclear Operations

WWS/SS:jg3

Attachment: Licensee Event Report 80-012

cc: Director, Office of Inspection and Enforcement (30)
Director, Office of Management Information & Program Control (3)
Director, Nuclear Safety Analysis Center (1)

NRC FORM 366 (7-77)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 — LICENSEE CODE: C A S O S 1 (2) — LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) — LICENSE TYPE: 4 1 1 1 1 (4) — CAT (5)

CON'T

0 1 — REPORT SOURCE: L (6) — DOCKET NUMBER: 0 5 0 0 0 2 0 6 (7) — EVENT DATE: 0 3 2 4 8 0 (8) — REPORT DATE: 0 4 2 0 8 0 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During normal operations, while obtaining diesel fuel oil samples, the No. 2
0 3 diesel generator fuel oil transfer pumps G-75A & G-75B tripped on current overload
0 4 rendering the diesel inoperative. Operability of two offsite transmission lines
0 5 and the remaining diesel generator was successfully demonstrated as required by T.S.
0 6 3.7.2.B. There was no degradation of plant safety during this incident. Plant operation
0 7 with one operable diesel generator is permitted for up to 72 hours by T.S. 3.7.2.B.
0 8

0 9 — SYSTEM CODE: E E (11) — CAUSE CODE: X (12) — CAUSE SUBCODE: Z (13) — COMPONENT CODE: P U M P X X (14) — COMP. SUBCODE: B (15) — VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER — EVENT YEAR: 8 0 — — — SEQUENTIAL REPORT NO.: 0 1 2 — / — OCCURRENCE CODE: 0 3 — REPORT TYPE: L — — — REVISION NO.: 0

ACTION TAKEN: X (18) — FUTURE ACTION: Z (19) — EFFECT ON PLANT: Z (20) — SHUTDOWN METHOD: Z (21) — HOURS (22): 0 0 0 0 — ATTACHMENT SUBMITTED: N (23) — NPRD-4 FORM SUB.: N (24) — PRIME COMP. SUPPLIER: L (25) — COMPONENT MANUFACTURER: G 2 0 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Sump pumps in transfer pump vault failed to operate. Resulting high water level in
1 1 vault created drag on pump-motor coupling causing high motor current flow. After
1 2 water was removed from vault both transfer pumps operated successfully. No 2 diesel
1 3 generator was returned to service within 6 hours.
1 4

1 5 — FACILITY STATUS: E (28) — % POWER: 1 0 0 (29) — OTHER STATUS (30): N.A. — METHOD OF DISCOVERY: B (31) — DISCOVERY DESCRIPTION (32): Overcurrent trip

1 6 — ACTIVITY RELEASED: Z (33) — CONTENT OF RELEASE: Z (34) — AMOUNT OF ACTIVITY (35): N.A. — LOCATION OF RELEASE (36): N.A.

PERSONNEL EXPOSURES

1 7 — NUMBER: 0 0 0 (37) — TYPE: Z (38) — DESCRIPTION (39): N.A.

PERSONNEL INJURIES

1 8 — NUMBER: 0 0 0 (40) — DESCRIPTION (41): N.A.

LOSS OF OR DAMAGE TO FACILITY (43)

1 9 — TYPE: Z (42) — DESCRIPTION: N.A.

PUBLICITY

2 0 — ISSUED: N (44) — DESCRIPTION (45): N.A.

NRC USE ONLY

NAME OF PREPARER J. M. Curran — PHONE: (714) 492-7700

GPO 917-926