Update Report - Previous Report Date 5/19/83

NRC FORM 366 (12-81) 10 CFR 50

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

APPROVED BY OMB 3150-0011

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

0 1	LICENSEE CODE: C A S O S 2 (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 3 6 1 (7) EVENT DATE: 0 4 1 9 8 3 (8) REPORT DATE: (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2	At 0148, with Unit 2 in Mode 5, Diesel Generator (DG) 2G002 was declared
0 3	inoperable when its starting time exceeded that allowed by Surveillance
0 4	Requirement 4.8.1.1.2.a.4. It was restarted within the allotted time but could
0 5	not be loaded. Because 2G003 was out of service for a design change at this time,
0 6	the Action Statement associated with LCO 3.8.1.2 was entered. This Action
0 7	Statement was satisfied and public health and safety were not affected.
0 8	

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	E E (11)	E (12)	X (13)	R E L A Y S (14)	A (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 3	—	0 3 9	/	0 3	X	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER (26)
A (18)	Z (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	A (25)	P 2 9 7

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0	The DG could not be loaded because the K-8 relay had not reset upon de-energiza-
1 1	tion. The relay was manually cycled and the surveillance test was passed on
1 2	4/19/83 at 0610. An attachment to this LER provides additional information in
1 3	accordance with Technical Specification on 4.8.1.1.3 and Regulatory Guide 1.108.
1 4	

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	B (28)	0 0 0 (29)	NA	B (31)	Surveillance Test

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	NA

8410240106 840924
PDR ADOCK 05000361
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

IE29 1/1

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	NA	

NAME OF PREPARER J. G. HAYNES PHONE 714/492-7700

ATTACHMENT TO LER 83-039, REVISION 1

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 2, DOCKET NO. 50-361

SUPPLEMENTAL INFORMATION FOR CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

The following information is provided in accordance with Surveillance Requirement 4.8.1.1.3 and Regulatory Position C.3.b. of Regulatory Guide 1.108:

1. The diesel generator involved was 2G002.

2. This was the fourth failure of a diesel generator of the same design and size in the last 65 tests at Unit 2. For information regarding the first three failures, see letter from H. B. Ray (SCE) to J. B. Martin (NRC), dated April 15, 1983.

3. The diesel generator failed to meet the requirements of the surveillance test in two ways. The first attempted start failed when the diesel generator started in 11.67 seconds, exceeding the requirement of starting within ten seconds. The diesel ran for six minutes, was stopped and restarted. On the second attempt, the diesel started within ten seconds (8.83) but the speed control system failed.

   Investigation revealed that the speed control system failed because the K-8 relay did not completely reset upon de-energization due to binding of the contacts. After manual cycling of the relay, the diesel generator surveillance test was satisfactorily completed.

   Subsequent investigation into the cause of Diesel Generator (DG) 2G002 delay start revealed procedural ambiguity as the root cause. The note in Procedure SO23-3-3.23 Check-Off Lists 1 and 2, Step 2.2 can be interpreted by each individual operator differently as to when the normal frequency and voltage is attained. If, as in this event, the operator interpreted normal frequency and voltage to be a stable 60 Hz and 4160 volts, an excessive start time could easily have been recorded.

4. As corrective actions, the K-8 relay was replaced by a spare and Procedure SO23-3-3.23 Check-Off Lists 1 and 2, Step 2.2 note was changed to clarify procedural ambiguity and ensure a definitive interpretation of normal frequency and voltage.

   Further investigation has determined that the failed K-8 relay had no effect on the diesel generator start time.

5. Diesel Generator 2G002 was unavailable for 4 hours and 22 minutes (0148 to 0610 on April 19, 1983).

6. The test interval at the time LER 83-039, Revision 0, was submitted, was three days. The current test interval based upon the last 100 valid tests within the time period 5/22/83 to 8/29/84 is thirty-one days. These test intervals are in accordance with Table 4.8-1 of the Technical Specifications.

7. The test interval at the time LER 83-039, Revision 0, was submitted and the current test interval are in conformance with the schedule of the Regulatory Position C.2.d of Regulatory Guide 1.08.

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION
P.O. BOX 128
SAN CLEMENTE, CALIFORNIA 92672

J. G. HAYNES
STATION MANAGER

TELEPHONE
(714) 492-7700

September 24, 1984

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. J. B. Martin, Regional Administrator

Dear Sir:

Subject: Docket No. 50-361
Licensee Event Report No. 83-039, Revision 1
San Onofre Nuclear Generating Station, Unit 2

Reference: Letter, Harold B. Ray (SCE) to J. B. Martin (USNRC), dated May 19, 1983, Licensee Event Report No. 83-039

The referenced letter provided the required Licensee Event Report (LER) for an occurrence involving Limiting Condition for Operation (LCO) 3.8.1.2 associated with A. C. Electrical Power Sources. In that LER, we reported that a revised LER would be submitted to provide the results of our investigation into the cause of the diesel generator delay start and failure of the speed control system relay to reset. Enclosed is LER 83-039, Revision 1.

If you require any additional information, please so advise.

Sincerely,

JG Haynes

Enclosure: LER 83-039, Revision 1

cc: A. E. Chaffee (USNRC Senior Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

U. S. Nuclear Regulatory Commission
Document Control Desk

Institute of Nuclear Power Operations (INPO)

FILE

IE-29
84-266 1/1