

Update Report - Previous Report Date 5/19/83

NRC FORM 366
(12-81)
10 CFR 50U.S. NUCLEAR REGULATORY COMMISSION
LICENSEE EVENT REPORTAPPROVED BY OMB
3150-0011CONTROL BLOCK: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)01 C A S O S 2 2 0 0 - 0 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

CONT

01 REPORT SOURCE L 6 0 5 0 0 0 3 6 1 7 0 4 1 9 8 3 8 9
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 At 0148, with Unit 2 in Mode 5, Diesel Generator (DG) 2G002 was declared

03 inoperable when its starting time exceeded that allowed by Surveillance

04 Requirement 4.8.1.1.2.a.4. It was restarted within the allotted time but could

05 not be loaded. Because 2G003 was out of service for a design change at this time,

06 the Action Statement associated with LCO 3.8.1.2 was entered. This Action

07 Statement was satisfied and public health and safety were not affected.

08

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
E E 11 E 12 X 13 R E L 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 ATTACHMENT SUBMITTED NPRO-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER
A 18 Z 19 Z 20 Z 21 0 0 0 0 0 Y 23 N 24 A 25 P 2 9 7

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The DG could not be loaded because the K-8 relay had not reset upon de-energiza-

11 tion. The relay was manually cycled and the surveillance test was passed on

12 4/19/83 at 0610. An attachment to this LER provides additional information in

13 accordance with Technical Specification on 4.8.1.1.3 and Regulatory Guide 1.108.

14

15 FACILITY STATUS % POWER OTHER STATUS (30) METHOD OF DISCOVERY DISCOVERY DESCRIPTION (32)
B 26 0 0 0 29 NA B 31 Surveillance Test

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

17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION (39)
0 0 0 17 Z 38 NA

18 PERSONNEL INJURIES NUMBER DESCRIPTION (41)
0 0 0 40 NA

19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION (43)
Z 42 NA

20 PUBLICITY ISSUED DESCRIPTION (45)
N 44 NA

8410240106 840924
PDR ADOCK 05000361 PDR
SIE29
1/1

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.

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NRC

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P.O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

1984 SEP 28 PM 12:29

SCE

J. G. HAYNES
STATION MANAGER

REGION V/AS

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
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Institute of Nuclear Power Operations (INPO)

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