PALISADES PLANT

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 | MIPAL1 (2) | 00-0000-00 (3) | 4 1111 (4) | (5)

LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

CON'T

0 1 | REPORT SOURCE L (6) | 05000255 (7) | 062681 (8) | 071081 (9)

DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During test of shutdown sequencers (34-5/34-6), both failed. Sequencers

0 3 | normally protect D/Gs from overload following loss of offsite power;

0 4 | failure of these control devices affected operability of both D/Gs.

0 5 | TS 3.7.1 and 6.9.2.A2 apply. Concurrent with sequencer failure, D/G

0 6 | 1-1 failed to reach rated speed (to be reported separately). An additional

0 7 | failure occurred during trouble shooting when loads normally controlled

0 8 | by 34-5 could not be started either by the sequencer or with handswitch.

0 9 | SYSTEM CODE SB (11) | CAUSE CODE E (12) | CAUSE SUBCODE A (13) | COMPONENT CODE RELAYX (14) | COMP SUBCODE M (15) | VALVE SUBCODE 4 (16)

(17) LER/RO REPORT NUMBER | EVENT YEAR 81 | SEQUENTIAL REPORT NO. 025 | OCCURRENCE CODE 01 | REPORT TYPE A | REVISION NO. 0

ACTION TAKEN B (18) | FUTURE ACTION X (19) | EFFECT ON PLANT Z (20) | SHUTDOWN METHOD Z (21) | HOURS 0000 (22) | ATTACHMENT SUBMITTED Y (23) | NPRD-4 FORM SUB. Y (24) | PRIME COMP SUPPLIER A (25) | COMPONENT MANUFACTURER E020 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | 34-4 failure caused by sticking clutch; clutch was cleaned and lubricated.

1 1 | 34-5 failure caused by dirty contacts; contacts were cleaned. A PM will

1 2 | be established to perform the above actions. Failure of sequencer loads

1 3 | to start attributed to M&TE used during test; problem to be resolved

1 4 | either through use of suitable M&TE or by revising test method.

1 5 | FACILITY STATUS E (28) | % POWER 099 (29) | OTHER STATUS (30) NA | METHOD OF DISCOVERY B (31) | DISCOVERY DESCRIPTION (32) Surveillance Test

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

1 7 | PERSONNEL EXPOSURES NUMBER 000 (37) | TYPE N (38) | DESCRIPTION (39) NA

1 8 | PERSONNEL INJURIES NUMBER 000 (40) | DESCRIPTION (41) NA

1 9 | LOSS OF OR DAMAGE TO FACILITY TYPE Z (42) | DESCRIPTION (43) NA

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

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Attachment to LER 81-25
Consumers Power Company
Palisades Nuclear Plant
Docket 50-255

1. Shutdown Sequencer Failure

During routine testing of shutdown sequencers (34-5 and 34-6), neither sequencer operated properly. The sequencers function to automatically start selected loads following a loss of offsite power event; the loads are sequenced to prevent overloading of the diesel generators. Loads operated by the sequencers are tabulated below.

34-5 (left channel)	34-6 (right channel)
. Service water pump P-7B	. Service water pumps P7A and P7C
. Charging pump P55C	. Charging pumps P-55A and P55B
. Containment Cooling Recirc Fan V4A	. Containment Cooling Recirc Fans V1A, V2A and V3A

Sequencer failure would require the loads tabulated above to be manually started following a loss of offsite power event; as a result, overloading of diesel generators could have occurred, although the potential for overload is considered low.

Sequencer 34-6 failure was apparently caused by binding of the clutch. Attempts to make the problem repeat itself were unsuccessful; the clutch was cleaned and lubricated. Sequencer 34-5 failure was caused by dirty sequencer contacts; cleaning the contacts resolved the problem. A PM to routinely clean and lubricate sequencer clutches, as well as to clean contacts, will be implemented.

2. Diesel Generator 1-1 Failure

Upon failure of the first sequencer tested (34-5), diesel generator 1-2 was tested satisfactorily; testing of sequencer 34-6 was also performed, and when it failed, diesel generator 1-1 was tested to verify operability. The 1-1 diesel generator failed its test, as it could only achieve 58.5 hertz. This occurrence will be reported separately and is included in this report only for the purpose of continuity.

3. Failure of Loads Controlled by Sequencer 34-5

Following cleaning of sequencer 34-5 contacts, several attempts were made to run the test; however, the loads connected to the sequencer would not start. Attempts to start the loads with their handswitches also failed. The measuring and test equipment (M&TE: events recorder) was then removed from the circuit and the test proceeded satisfactorily (event timing was performed with

a stopwatch). Proper handswitch operation was also verified. The precise mechanism of this failure is unknown; however it is believed that the M&TE was not adequately isolated from the circuit being tested. Either suitable M&TE will be obtained for future tests, or the procedural method will be altered.