

LICENSEE EVENT REPC T

CONTROL BLOCK:

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME:

CATEGORY:

EVENT DESCRIPTION

While performing an operability test on Diesel Generator No. 2, the "Diesel Generator No. 2 Trouble" alarm was tripped. The diesel had failed to start which set off the alarm. An operability test was performed on Diesel Generator No. 1 and Diesel Generator No. 2 was removed from standby service. (50-219/76-16-3L)

SYSTEM CODE:

CAUSE DESCRIPTION

The cause of the failure was a "Sequence Fault" due to "No Pinion Engagement". However, the pinion engagement did occur and the unit did crank.

FACILITY STATUS:

PERSONNEL EXPOSURES

NUMBER:

PERSONNEL INJURIES

NUMBER:

Probable Consequences

LOSS OR DAMAGE TO FACILITY

TYPE:

PUBLICITY


ADDITIONAL FACTORS

POOR ORIGINAL

Jersey Central Power & Light Company



MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 201-539-6111

MEMBER OF THE
General  Public Utilities Corporation

OYSTER CREEK NUCLEAR GENERATING STATION
Forked River, New Jersey 08731

Licensee Event Report
Reportable Occurrence No. 50-219/76-16-3L

Report Date

July 6, 1976

Occurrence Date

June 8, 1976

Identification of Occurrence

Failure of Diesel Generator No. 2 (DG-2) to start when called upon to do so. This event is considered to be a 30-day reportable occurrence as defined in the Technical specifications, paragraph 6.9.2.b.2.

Conditions Prior to Occurrence

The major plant parameters at the time of the occurrence were as follows:

Power:	Reactor, 1758 MWt
	Generator, 598 MWe(g)
Flow:	Recirculation, 57.4×10^6 lb/hr
	Feedwater, 6.54×10^6 lb/hr
Stack Gas:	9600 μ ci/sec

Description of Occurrence

On Tuesday, June 8, 1976, at approximately 0850 hours, steps were initiated to remove DG-1 from service for required preventative maintenance. As a first step in doing this, an attempt was made to perform an operability test on DG-2. Approximately 10 seconds following initiation of the start signal, a "Diesel Generator No. 2 Trouble" alarm occurred, and the diesel failed to start. An operability test was performed on DG-1 and DG-2 was removed from standby service to investigate the cause of the failure.

July 6, 1976

Apparent Cause of Occurrence

The cause of the failure was a "Sequence Fault" which was initiated by "No Pinion Engagement". The unit starting sequence is performed automatically by a sequencing circuit, each step of which must be logically satisfied before the next step in the sequence is initiated. If any step is not satisfied, the starting sequence is repeated from the beginning up to a maximum of three (3) times. Based upon discussions with the operator assigned the responsibility for monitoring the unit during operation, starter motor pinion engagement did occur and the unit did "crank" in the reduced voltage mode. This occurred three (3) successive times even though the starting circuit saw "No Pinion Engagement" during each attempt.

Maintenance personnel thoroughly inspected those components of the starting logic which could have caused the problem and no deficiencies were found. The unit was returned to standby service and was tested over the next seven (7) consecutive days with maintenance personnel monitoring the sequencing logic for proper operation. The diesels were tested in this manner for a total of ten (10) times and no deficiencies were observed during these starting evolutions.

Analysis of Occurrence

Had a loss of off-site power event occurred and the diesels been required to start in the fast start mode, DG-2 would not have started. DG-1 was operable during this time and would have supplied power to its associated emergency bus. At the time of the occurrence all emergency systems associated with DG-1 were operable. The safety significance of this event is considered to be a loss of system redundancy.

Corrective Action

The diesel generator manufacturer will be contacted to obtain specific recommendations regarding component failures which could cause the failure to start problem, and information involving similar occurrences at other facilities. Until this information is obtained, the starting circuit logic will be monitored during planned starts to aid in determining the failure mode.

Failure Data

N/A