Met-Ed GPU

Metropolitan Edison Company Post Office Box 480 Middletown, Pennsylvania 17057 717 944-4041

Writer's Direct Dial Number

August 18, 1980 TLL 402

Office of Inspection and Enforcement Attn: B. H. Grier, Director Region I U. S. Nuclear Regulatory Commission 631 Park Avenue King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 80-029/01L-0

Attached please find Licensee Event Report 80-029/01L-0 concerning the Gray Balance of Plant Diesel Generator failure to start on July 14, 1980.

This event constitutes a violation of Section 3.8.1.1c and is considered reportable under Section 6.9.1.8.b of the Interim Recovery Technical Specifications.

Sincerely,

G. K. Hovey
Director, TMI-2

GKH:SDC:lma

Attachments

cc: J. T. Collins

105/11

8008250490

LICENSEE EVENT REPORT

	CONTROL BLOCK: [] [1] (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
0 1	P A T M I 2 2 0 0 - 0 0 0 0 - 0 0 3 4 1 1 1 1 1 6 57 CAT 58 5
CON'T 0 1 7 8	SOURCE L 6 0 5 0 0 3 2 0 7 0 7 1 4 8 0 8 0 8 0 9 EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10 During Recovery Mode Operation (cold shutdown, decay heat removal the Gray Balance)
0131	of Plant (BOP) Diesel Generator failed to start during surveillance testing on July
0 4	114, 1980. The failure to start was determined to be caused by a damaged connection
0 5	at the speed sensor, which in turn caused the speed switch to erroneously trip the
0 6	diesel. This event had no effect on the plant, its operation, or the health and
0 7	safety of the public.
08	9 80
09	SYSTEM CAUSE CAUSE COMPONENT CODE SUBCODE SUBC
	17 REPORT 8 0 2 9 27 28 29 30 31 32 33 34 19 35 36 37 37 40 41 42 43 47 47 6 6 6 6 6 6 6 6 6
10	The wiring to the speed sensor was exposed to the walkway and was apparently bumped
111	or caught and pulled, damaging its connection at the sensor. The connection was re-
1 2	paired and the diesel generator surveillance testing completed successfully. The
1 3	speed sensor wiring adjacent to the walkway was rerun in conduit to ensure its
14	protection. 7
15,	FACILITY STATUS 30 METHOD OF DISCOVERY DESCRIPTION 32 DISCOVERY DESCRIP
	ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY 35 Z 33 Z 34 N/A LOCATION OF RELEASE 36 N/A 45
1 7 7 8	PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39 O 0 0 37 Z 38 N/A
1 R:	PERSONNEL INJURIES NUMBER DESCRIPTION 41 N/A N/A
	LOSS OF OR DAMAGE TO FACILITY (43) TYPE DESCRIPTION N/A
	PUBLICITY ISSUED DESCRIPTION 45 NRC USE ONLY N/A
	9 9 8 00825()476 68 69 30.5 NAME OF PREPARER_Steven D. Chaplin PHONE: (717) 948-8461

LICENSEE EVENT REPORT NARRATIVE REPORT

TMI-2

LER 80-029/01L-0 EVENT DATE - July 14, 1980

I. EXPLANATION OF OCCURRENCE

On July 14, 1980, an attempt was made to start the Gray BOP Diesel Generator per monthly surveillance procedure 4303-M16. Approximately five (5) seconds after the start pushbutton was depressed, the govenor tripped, causing the engine to shutdown. No alarms were received except the "fail-to-start" alarm.

In an attempt to isolate the cause of the trip signal, one of the two (2) time delay trip signals to the govenor was defeated. The defeated trip signal was the underspeed or no start trip function, which is derived from the speed switch output. The diesel was then successfully started. However, two of four air-start motor drive gears failed to engage properly and were destroyed by the engine flywheel, and the diesel had to be shutdown.

II. CAUSE OF THE OCCURRENCE

A subsequent investigation into the cause of the apparent speed switch failure revealed a damaged connection at the magnetic pickup located at the flywheel. The wire was reconnected, and the speed switch and magnetic pickup were tested and found to be functioning properly.

The problem with the air-start motor drive gears was also caused by the faulty connection at the magnetic pickup. The resulting malfunctioning of the speed switch caused the air start motors to attempt to re-engage the flywheel after disengaging.

III. CIRCUMSTANCES SURROUNDING THE OCCURRENCE

At the time of the occurrence, the Unit 2 facility was in a long-term cold shutdown state. The reactor decay heat was being removed via natural circulation to the "A" steam generator which is operating in a 'steaming' mode. Throughout the event, there was no Loss of Natural Circulation Heat Removal in the RCS System.

IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

IMMEDIATE

The faulty connection at the magnetic pickup was corrected and the pickup and speed switch were tested and found to be functioning properly.

The two air-start motor gears were replaced.

LONG TERM

It is evident that the wire to the magnetic pickup, which is exposed along the engine walkway, was kicked or bumped in some manner causing the damaged connection. The exposed section of wire has been rerun in conduit to prevent reoccurrence of this problem.

V. COMPONENT FAILURE DATA

N/A