U 3 NULLEAR REGULATUR LICENSEE EVENT REPORT (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION) |(1)CONTROL BLOCK: 4 1 1 1 (4) 3 0 0 0 0 0 - 0 0 2 P BS (2)0LICENSE NUMBER LICENSEE CODE CON'T 11111 REPORT 3 (8) 4 0 17 (2)0 9 0 81 10 1 -10 2 L (6) 0 5 0 1 SOURCE REPORT DATE EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10) During surveillance testing, the Unit 3 recirc, M-G set room and 0 2 recirc. M-G set lube oil pump room sprinkler systems did not 0 3 automatically actuate because the sprinkler system actuating solenoid 0 4 coils failed to energize. Firewatches were posted per Tech Spec. 0 5 3.14.E.1 The Manual acutation of each system was tested and found 0 6 operable. The same two sprinkler systems on Unit 2 were checked and 0 found to have the identical problem. COMP VALVE SYSTEM CAUSE CAUSE COMPONENT CODE SUBCODE CODE CODE SUBCODE B Z1 Z Z ZI Z (15 18 OCCURRENCE REVISION SEQUENTIAL REPORT NO. REPORT NO. CODE TYPE EVENT YEAR LER/RO 0 212 REPORT NUMBER COMPONENT NPRD-4 PRIME COMP HOURS (22) FORM SUB MANUFACTURER SUPPLIER SUBMITTED (23) 9 (24) 9 0 0 N 18) CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27) Investigation of event discovered failed coil to be AC (design requires 10 The failed AC coil had passed pre-op test when installed. DC coil). Proper DC Coils were installed, functionally tested and returned to service 9/23 (Unit 3) and 9/28 (Unit 2). All other sprinkler systems activated by solenoid valves are being examined for similar condition. METHOD OF OTHER STATUS (30) DISCOVERY DESCRIPTION (32) > POWER B(31) Surveillance Test 0|0|0|(29)1/3 startup<1% (28) ACTIVITY CONTENT LOCATION OF RELEASE (36) AMOUNT OF ACTIVITY (35 RELEASED OF RELEASE N/A N/A (33) (34) 6 80 PERSONNEL EXPOSURES DESCRIPTION (39) TYPE NUMBER 0101 0 (37) Z (38) N/A 80 PERSONNEL INJURIES 8311010231 831011 PDR ADOCK 0500027 DESCRIPTION (41 NUMBER 0 0 1 N/A 8 40 PDR 80 12 LOSS OF OR DAMAGE TO FACILITY (43) 104 DESCRIPTION Z (42) N/A 80 PUBLICITY NRC USE ONLY DESCRIPTION (45) N/A 69 5 (215)841-5020 NAME OF PREPARER. PHONE:-

# PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA. PA. 19101

(215) 841-4000

October 11, 1983

Docket Nos. 50-277 50-278

Dr. Thomas E. Murley Office of Inspection and Enforcement Region I U.S. Nuclear Regulatory Commission 631 Park Avenue King of Prussia, PA 19406

Subject: License Event Report 2-83-22/3L Attachment

Dear Dr. Murley:

The enclosed attachment provides supplementary information to License Event Report 2-83-22/3L concerning the failure of the sprinkler systems associated with the Unit 2 and Unit 3 recirculation motor-generator set (M-G set) room and recirculation M-G set lube oil pump room to automatically actuate during a surveillance test.

Reference:	Docket Nos. 50-277, 50-278
Report Number:	2-83-22/3L
Report Date:	October 11, 1983
Event Date:	September 7, 1983
Licensee:	Philadelphia Electric Company
Facility:	Peach Bottom Atomic Power Station
	RD 1, DEITA, PA 1/314

### Technical Specification Reference:

Technical Specification 3.14.E.1, Water Suppression System, states that "The M-G set room and the M-G set lube oil room water suppression systems shall be operable whenever the unit is in reactor power operation." This Technical Specification further states, "If the requirements of 3.14.E.1 cannot be met, establish a continuous fire watch with portable

### Dr. Thomas E. Murley

fire suppressic Tuipment within one hour" and "restore the system to an operable status within 14 days."

### Description of Event:

During the startup of Unit 3 following a refueling outage, while performing surveillance testing, the Unit 3 recirculation motor-generator set (M-G set) room and recirculation M-G set lube oil pump room prinkler systems would not automatically actuate because the sprinkler system actuating solenoid coils failed to energize.

A subsequent check of the solenoid value activating coils in the Unit 2 recirculation motor-generator set (M-G set) room and recirculation M-G set lube oil pump room sprinker systems revealed the identical situation.

# Probable Consequences of the Occurrence:

Following discovery of failure of these sprinkler systems to automatically actuate, continuous firewatches were posted per requirements of the Technical Specification's Limiting Conditions for Operation. Failure of the struating coils, however, did not prohibit the ability to menually actuate the system.

## Cause of the Occurrence:

Investigation of event discovered the failed solenoid valve actuating coil to be AC (design requires DC coil). The AC actuating coil had burned out. A review of our records on this equipment discovered the vendor (Grinnel Fire Protection) had supplied the improper AC coil when the coil had been delivered with the original equipment. The drawing supplied by the vendor, following their receipt of Philadelphia Electric Company specifications for installation of this coil correctly specified a DC coil. The unit was installed and passed pre-operational testing when installed March 1982.

Our analysis of this particular component discovered that an AC coil in this instance could actuate in a DC application of this type if the coil were energized for only a short period. States and

### Immediate Corrective Actions Taken:

All other sprinkler systems within both Peach Bottom facilities were examined for the similar situation. With the exception of the four applications as described previously, all other sprinkler equipment required by the Technical Specifications were found to contain the proper DC coils.

## Subsequent Corrective Actions Taken:

Proper DC coils were installed and functionally tested within both Unit 2 and Unit 3 recirculation motor-generator set (M-G set) room and recirculation M-G set lube oil pump room sprinkler systems and were returned to service.

The Unit 3 recirculation M-G set and recirculation M-G set oil pump room automatically actuating sprinkler systems were returned to service September 23, 1983, and the Unit 2 identical systems were returned to service September 28, 1983.

## Actions Taken to Prevent Recurrence:

Philadelphia Electric Company is currently in the process of adding to its procedures 'Procedure for Controlling Fire Protection Modifications' which includes very specific receipt inspection requirements for all fire protection equipment. This procedure should prevent recurrence of this type of event.

Sincerely,

ooney

Superintendent Nuclear Generation Division

DWB:vdw

Attachments

cc: A. R. Blough, Site Inspector