



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NRC PDR

AUG 14 1979

MEMORANDUM FOR: E. Jordan, Assistant Director, Division of Operation
Inspection, I&E

FROM: B. Grimes, Acting Assistant Director for Systems
Engineering, DOR

SUBJECT: LICENSEE EVENT REPORT ON TMI-1, GTE SYLVANIA RELAY,
TYPE PM, CAT. 5412-11, 120V AC COIL FAILURE (LER
79-12/01T-0)

The Metropolitan Edison Company in its letter dated July 6, 1979, submitted a Licensee Event Report (LER) on the Three Mile Island Nuclear Station, Unit 1 (TMI-1). The LER describes an event in which a GTE Sylvania relay Type PM, Cat. 5412-11 (62 x 2B/RClA) fails to drop out when the coil is deenergized. An inspection was conducted to check for notches in armature operating rods. The failure mode has not been positively identified; however, a notch in operating rods may occur where the rod vibrates against the magnet assembly. This is speculated to be caused by coil hum. The failed relay reported is a part of the Engineered Safeguards Actuation System, 2-of-3 coincidence logic, and affects Decay Heat Closed Cooling Pump A and Nuclear Services Closed Cooling Pump A.

The licensee inspected the 48 relays installed in safety systems and found that 25 of the relays had notches ranging from 0.001 to 0.003 inches deep. This type of defect is considered to have a potential generic implication.

The Plant Systems Branch, DOR, recommends that I&E further investigate this potential generic problem. A determination should be made to determine whether a Bulletin is justified. The Plant Systems Branch would propose corrective action to remove notches and to initiate a preventive maintenance program for the relay or to replace operating rod and magnet assembly.

A handwritten signature in black ink, appearing to read "B. Grimes".

B. Grimes, Acting Assistant Director
for Systems Engineering
Division of Operating Reactors

cc: See next page

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