



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

11/14

SEP 24 1979

In Reply Refer To:

RII:JPO

50-395

South Carolina Electric and Gas Company
Attn: T. C. Nichols, Jr., Vice President
Power Production and System Operations
Post Office Box 764
Columbia, South Carolina 29218

Gentlemen:

The enclosed IE Circular No. 79-20, is forwarded to you for information.
No written response is required. Should you have any questions related to
your understanding of this matter, please contact this office.

Sincerely,

James P. O'Reilly
Director

Enclosures:

1. IE Circular No. 79-20
2. List of IE Circulars Issued
in the Last six months

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

September 24, 1979

IE Circular No. 79-20

FAILURE OF GTE SYLVANIA RELAY, TYPE PM BULLETIN 7305, CATALOG 5U12-11-AC WITH
A 120V AC COIL

Description of Circumstances:

During inspection of relays in the Engineered Safeguards Actuation System at Metropolitan Edison Three Mile Island Nuclear Station Unit #1, relay 62X2B/RC1A failed to drop out when the coil was deenergized. The failed relay would not prevent component starting but would have reduced the 2 of 3 coincidence logic to 2 of 2, affecting Decay Heat Closed Cooling Pump A and Nuclear Services Closed Cooling Pump A or B. The cause for failure was attributed to a notch in the armature operating rod. The notch occurs where the rod vibrates against the magnet assembly due to coil hum. A review of the history of this component indicates that similar relays failed during 1977 through 1979 at least one of which was attributed to notching. An inspection of forty-eight (48) relays by this licensee indicated that twenty-five (25) of the relays had detectable notches ranging from 0.001 to 0.003 inches deep.

Recommended Actions for Licensees' Consideration:

1. Ensure that all GTE Sylvania Relays Type PM Bulletin 7305, with a 120V AC Coil used in or affecting the operation of safety-related equipment are examined to ensure that the armature operating rod is not notched and is operating freely.
2. Relays found with detectable notches on the operating rod should be corrected. If correction cannot be accomplished then administrative controls should be initiated to assure demonstrated operation until the relay condition is corrected.

No written response to this Circular is required. If you require additional information regarding this subject, contact the Director of the appropriate NRC Regional Office.

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