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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Docket No. 50-440
Docket No. 50-441

NOV 2 1979

The Cleveland Electric Illuminating
Company
ATTN: Mr. Dalwyn R. Davidson
Vice President - Engineering
P. O. Box 5000
Cleveland, OH 44101

Gentlemen:

Enclosed is IE Bulletin No. 79-25 which requires action by with regard to your power reactor facilities with an operating license or a construction permit.

Should you have questions regarding this Bulletin or the actions required of you, please contact this office.

Sincerely,

James G. Keppler
James G. Keppler
Director

Enclosures:
1. IE Bulletin No. 79-25
2. List of IE Bulletins Issued in the Last Six Months

cc w/encl:
Central Files
Director, NRR/DPM
Director, NRR/DOR
PDR
Local PDR
NSIC
TIC
Harold W. Kohn, Power
Siting Commission
Mr. Daniel D. Wilt,
Attorney

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

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November 2, 1979

IE Bulletin No. 79-25

FAILURES OF WESTINGHOUSE BFD RELAYS IN SAFETY-RELATED SYSTEMS

Description of Circumstances:

While conducting response time tests on Westinghouse BFD relays at the H. B. Robinson facility, two relays were found to be stuck in the energized position with the coil de-energized. The twenty relays being tested were installed spares and provided no safety-related or operational function. The subject relay is identified as a Westinghouse Electric Corporation type BFD, style 5069A95G03, coil style 1259C71G19. Upon discovery of the two stuck relays in the test program, the licensee conducted response tests on similar relays installed in the Reactor Protection System. During this additional testing a reactor trip relay was found to be stuck in the energized position. Detailed investigation of the problem by the licensee's staff indicated that the armature was sticking to the armature stop post. This condition is apparently created when heat generated by normally energized coils causes a softening and resultant flow of epoxy adhesive used to attach the magnetic antistick disc to the top of the armature stop post. When sufficient adhesive flows to the top of the armature stop, the armature becomes bonded to the stop post, resulting in the relay sticking in the energized position. The epoxy adhesive had also discolored to a dark brown as opposed to clear in new relays.

After reviewing this problem, Westinghouse issued a service letter dated December 6, 1978. A copy of this letter is enclosed for your information and appropriate use. Westinghouse recommended replacing affected relays with a relay identified as NBFD, style 5072A49, coil style 1271C50G01, 125/130 Volt DC ± 10 percent.

During installation and testing of the new NBFD relays identified by Westinghouse, H. B. Robinson determined that some of the new style relays exhibited marginal or unsatisfactory armature overtravel. An investigation of the problem by Westinghouse indicated that the insufficient overtravel was limited to eight and twelve pole models of the NBFD relays. Westinghouse issued a Technical Bulletin NSD-TB-79-05 to Licensees. A copy of this Technical Bulletin is also enclosed for your information and use. Westinghouse recommended a testing method for identifying relays with insufficient over travel and also recommended replacement of relays with insufficient overtravel.

Action to be Taken by Licensees:

For all power reactor facilities with an operating license or construction permit:

1. Determine whether or not the
used or planned for use in s

a. Type BFD, style 46E7352
b. Type BFD, style 5069A95
c. Type BFD, style 5072A49

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