

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

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PHILADELPHIA, PA. 19101

(215) 841-4504

JOSEPH W. GALLAGHER  
MANAGER  
ENGINEERING AND RESEARCH

JUL 5 1984

Mr. Thomas E. Murley, Director  
United States Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

50-352

Subject: Significant Deficiency Report No. 137  
Potentially Defective Type HMA Auxiliary Relays  
Limerick Generating Station, Unit 1

Attachment: Letter: General Electric notification in accordance  
with 10CFR21, dated 12/16/82

File: QUAL 2-10-2 (SDR - 137)

Dear Mr. Murley:

The attached letter has brought to our attention a potential deficiency in certain type HMA auxiliary relays. This deficiency has been previously reported to the USNRC under the provisions of 10CFR21.

We consider the deficiency described in the Attachment as a significant deficiency per 10CFR50.55(e) and are hereby notifying you as required.

We believe that the General Electric report submitted under the provisions of 10CFR21 provides the information required for 10CFR50.55(e) reporting. Therefore, we anticipate that this letter will be our only report to you on this subject.

We will, of course, assure that the potentially defective equipment is inspected and corrected in accordance with the instructions received from General Electric.

Sincerely,

*JW Gallagher*

Attachments  
JPE/drd

Copy to: Director of Inspection and Enforcement  
United States Nuclear Regulatory Commission  
Washington, DC 20555

C. K. Chaudhary, US NRC Resident Inspector

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# GENERAL ELECTRIC

POWER SYSTEMS  
MANAGEMENT  
BUSINESS  
DEPARTMENT

GENERAL ELECTRIC COMPANY, 205 GREAT VALLEY PARKWAY, MALVERN, PA 19355-0715  
Phone (215) 251-7000

December 16, 1982

Mr. Charles A. Cameron  
Manager-Safety Evaluation Programs  
Nuclear Energy Business Operations  
175 Curtner Avenue - M/C 682  
San Jose, California 95215

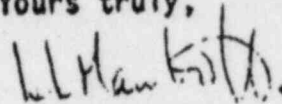
Subject: 10CFR21 Notification

Dear Sir:

Attached is a copy of a letter addressed to our customers who have purchased HMA relays and designated 10CFR21 on the purchase order.

In accordance with our normal practice, we have also sent a copy of this letter to the NRC.

Yours truly,



L. L. Mankoff  
Manager-Engineering

LLM/gs

Attachment

# GENERAL ELECTRIC

POWER SYSTEMS  
MANAGEMENT  
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DEPARTMENT

GENERAL ELECTRIC COMPANY, 205 GREAT VALLEY PARKWAY, MALVERN, PA 19355-0715  
Phone (215) 251-7000

Gentlemen:

This letter serves to notify you of a potential deficiency in type HMA auxiliary relays manufactured during 1974.

It has been determined that some HMA relays manufactured in 1974 have insufficient clearance between the armature tail piece and the molded posts on either side of the tail piece. If this condition exists, twisting of the armature may cause binding of the armature tail piece when the armature is energized and prevent opening of the armature when it is de-energized.

A review of our records indicates that the potential deficiency occurred only in HMA relays that were manufactured during 1974. Our investigation disclosed a tool problem in 1974. As a result, corrective action was taken to increase the minimum spacing between the armature tail piece and the molded posts to assure free movement of the armature.

Relays manufactured during 1974 can be identified by the date code on the Q.C. Acceptance sticker. The code consists of two numbers followed by any of the following suffixes: AK, BK, CH, DK, EK, FK, GK, HK, JK, KK, LK, MK. There are no known instances of the potential deficiency existing prior to 1974. However, if it is desired to check relays manufactured before 1974, the date code identification is as follows: the second letter of the date code will be a letter preceding the letter "K" in the alphabet. For example, AG (1971), AH (1972), AJ (1973).

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It is recommended that HMA relays with any of the listed date codes be inspected for a minimum of an 0.005 inch clearance between the armature tail piece and the posts. This can be done by inserting an 0.005 inch feeler gauge into the gap on each side of the tail piece. See the sketch on the attached page. Do not force the gauge, it should slide easily into the gap.

**CAUTION: DE-ENERGIZE BOTH THE HMA COIL AND CONTACT CIRCUITS BEFORE THE GAP CHECK IS MADE.**

If less than 0.005 inch clearance exists, it is recommended that the gaps be increased to a minimum of 0.005 inch or that the relay be replaced. The gaps can be increased by removing material from the molded posts. This option retains the original relay in the system and eliminates the need for system re-testing. To gain access to the molded posts, remove the No. 4-48 hex nut that clamps the foot of the armature stop to the molded base and lift the stop and armature tail piece out from between the posts. G.E. does not recommend re-working the armature tail piece because this would remove the protective metal finish and could lead to corrosion. In addition, resultant metal chips or filings could inhibit relay operation.

A new replacement HMA relay can be purchased at 50 percent of G.E. Handbook price. Request a new relay by complete model number; G.E. must have a Nuclear damage waiver for any device ordered for installation at any Nuclear site. A century series replacement relay must be used for Class I-E service. This offer will remain available until July 2, 1984.