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5211-84-2166

July 13, 1984

Dr. Thomas E. Murley  
Region I, Regional Administrator  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA. 19406

Dear Dr. Murley:

Three Mile Island Nuclear Station, Unit I, (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
IE Bulletin 84-02

This letter is being submitted in response to IE Bulletin 84-02 entitled "Failures of General Electric Type HFA Relays in Use in Class 1E Safety Systems".

The actions stated in IE Bulletin 84-02 which pertain to General Electric HFA Relays do not apply to TMI-1, since these relays are not used in any safety related applications at TMI-1. However, the bulletin also asks that "the general concerns expressed" be reviewed for applicability. The concern which was identified for the HFA Relays was an "end of life" condition for continuously energized AC coils.

The preventive maintenance program at TMI-1 includes the trending of failures such that when a failure rate reaches a predetermined threshold an engineering evaluation is requested. This practice aids in detecting the end of life conditions as well as other failure mechanisms.

Predicting end of life for coils is difficult because of many variables, such as voltage, ambient conditions and percent of time energized. It appears that the type (normally open or normally closed) of contacts also affects the coil because the contact spring aids or opposes pickup depending on the type of contact.

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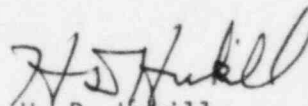
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Dr. Thomas E. Murley

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End of life coil failure was listed as a probable cause for LER 83-024/99X-0, ESAS Actuation Relay Coil Failure. These relays were Clark/GTE Sylvania Type PM 7305 AC Relays. The commitment from GPUN to replace all ESAS actuation relay coils was fulfilled in May 1984. Subsequent to replacement of the relay coils, TMI-1 experienced failures of additional coils. The failure of the new coils indicates that the problem may not have been end-of-life failure.

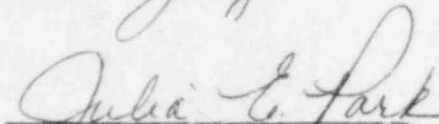
The subsequent failures resulted in partial ESAS actuations on June 3, 1984 and June 30, 1984. The description of these failures was reported in LER 84-002-0.

Sincerely,

  
H. D. Hukill,  
Director, TMI-1

HDH/MRK/mle

Sworn and subscribed  
to before me this 13<sup>th</sup>  
day of July, 1984.

  
Notary Public

**JULIA E. PARK, Notary Public**  
Middletown, Dauphin County, Pa.  
My Commission Expires Nov. 2, 1986