



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

50-388

Norman W. Curtis  
Vice President-Engineering & Construction-Nuclear  
215/770-7501

August 31, 1983

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

SUSQUEHANNA STEAM ELECTRIC STATION  
FINAL REPORT ON A DEFICIENCY INVOLVING  
DEFECTIVE GE HMA AUXILIARY RELAYS  
ER 100508 FILE 821-10  
PLA-1797

Reference: PLA-1528 dated 2/18/83  
PLA-1541 dated 2/23/83  
PLA-1703 dated 6/9/83

Dear Mr. Murley:

This letter serves to provide the Commission with a final 10CFR50.55(e) report on a deficiency involving an insufficient clearance problem with GE HMA auxiliary relays in SSES Unit 2. This deficiency was originally reported by telephone to Mr. D. Johnson of NRC Region I on 1/19/83 by Mr. J. Saranga of PP&L as potentially reportable under the requirements of 10CFR50.55(e) for SSES Unit 2.

The evaluation of this condition, presented as an attachment to this letter, has resulted in the conclusion that the deficiency is not reportable under 10CFR50.55(e).

The investigation for the existence of this condition in Unit 1, and subsequent replacement/rework, is being documented by NCR #83-795.

Since the details of this report provide information relevant to the reporting requirements of 10CFR21, this correspondence is considered to also discharge any formal responsibility PP&L may have in compliance thereto.

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August 31, 1983

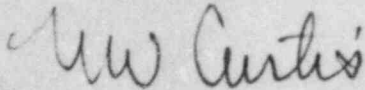
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ER 100508

PLA-1797  
FILE 821-10

We trust the Commission will find this report to be satisfactory.

Very truly yours,

A handwritten signature in cursive script, appearing to read "N. W. Curtis".

N. W. Curtis  
Vice President-Engineering & Construction-Nuclear

WLB:mp

Attachment

August 31, 1983

3

ER 100508

PLA-1797

FILE 821-10

Copy to:

Mr. Richard C. DeYoung (15)  
Director-Office of Inspection & Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. G. McDonald, Director  
Office of Management Information & Program Control  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Gary Rhoads  
U.S. Nuclear Regulatory Commission  
P.O. Box 52  
Shickshinny, PA 18655

Records Center  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, GA 30339



Attachment:

## FINAL REPORT

### Subject

GE HMA Auxiliary Relays

### Description of Problem

The GE HMA Auxiliary Relay is a general purpose, auxiliary relay which is used as a contact multiplier. These relays are used in various safety-related systems at Susquehanna.

A potential problem has been identified with GE HMA auxiliary relays manufactured during 1974. A manufacturing deficiency resulted in insufficient clearances between the relay's 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.

### Cause

GE's investigation into the deficiency disclosed that there was a tool problem in the manufacturing process in 1974.

### Analysis of Safety Implications

The GE HMA auxiliary relays, which were manufactured during 1974, are installed in safety-related equipment in SSES Unit 2. An inspection of all safety-related equipment has resulted in the identification of 21 relays which have the insufficient clearance problem. This inspection was performed under Work Authorizations WA-U30880 and WA-U30986.

An analysis of the circuits utilizing these 21 defective relays has been performed. Based on this analysis, it has been determined that a failure of one or more of the defective relays will not adversely affect the safe operation of the plant. PP&L has, therefore, concluded that this condition is not reportable under the provisions of 10CFR50.55(e) for Unit 2.

### Corrective Action

Those relays which have insufficient clearances will be reworked by removing material from the molded posts. This rework is based on GE FDI-MDHT and is being performed under WA-U31033.