



Pennsylvania Power & Light Company

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Norman W. Curtis  
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September 21, 1982

Mr. R. C. Haynes  
Director, Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION  
FINAL REPORT OF A DEFICIENCY INVOLVING  
AGASTAT E7000 SERIES TIME-DELAY RELAYS  
ERs 100450/100508 FILE 821-10  
PLA-1295

Reference: PLA-1042 dated March 23, 1982

Dear Mr. Haynes,

This letter, in conjunction with our interim report submitted under cover of the reference PLA-1042, serves to provide the Commission with a final report related to PP&L's evaluation, under the provisions of 10CFR50.55(e), of a deficiency regarding the potential failure of the subject Agastat E7000 relays. Control Products Division of Amerace Corporation, manufacturer of the relays, identified the existence of the potential for relay failure to Bechtel/PP&L and the NRC in accordance with 10CFR21.

The deficiency as it relates to the Susquehanna Steam Electric Station was originally identified as potentially reportable to Mr. E.C. McCabe of NRC Region I by telephone on February 17, 1982 by Mr. A. R. Sabol of PP&L.

A visual inspection was performed on February 23-24, 1982 by Agastat vendor representatives to determine which relays had to be returned to Agastat Corporation for rework. 213 relays were identified as having been manufactured during the critical time interval between the 24th week of 1981 and the 3rd week of 1982. These relays have been dispositioned as follows:

1. 200 relays were inspected by the vendor representatives.
  - a. 137 were determined to be not defective and did not require rework.
  - b. 63 relays were determined to be potentially defective. 52 of these were returned to Agastat for rework. The 11 remaining potentially defective relays located in non-class 1E circuits were placed on the Defective Device List to preclude their subsequent dedication to Class 1E service.

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2. 13 remaining relays were inspected/dispositioned as follows by PP&L Plant Staff.
  - a. 6 relays that were inaccessible during the initial program were subsequently replaced under WA I-21511 and WA U-21394.
  - b. 4 of the remaining 7 relays were found as documented in NCR 82-685; 1 in a safety-related application (replaced under WA S-22338), 1 installed in a non-safety related system, 1 in the Bechtel warehouse, and 1 in the ISG trailer.
  - c. 3 relays could not be located. An inspection program was initiated to locate the 3 remaining relays under WA S-22284. Additional inspections were conducted via WA's S-22911 and S-22560. These inspections led to the conclusion that these 3 relays (S/N 81370979, 81393794, and 81422735) were not installed in any SSES Unit I and Common Class 1E System. In addition, a re-inspection of the PP&L warehouse failed to locate the 3 remaining relays.

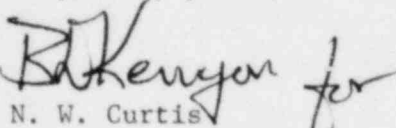
Bechtel has also conducted a search for the relays identified as missing in 2.c. above. This search was performed in the appropriate areas of Unit II and the three missing relays were not found.

To preclude the use of affected Agastat E7000 relays for Class 1E application, a requirement has been established in PP&L Nuclear Quality Assurance Procedure NQAP 11.2 to review the Defective Device List (DDL) as part of receipt inspections. This review will be accomplished for; (1) all QUALITY (i.e. Class 1E) material being transferred from contractors, subcontractors or agents for storage/use by PP&L and, (2) all material being submitted for upgrade to QUALITY status. Inclusion of all affected Agastat E7000 relays on the DDL will preclude their use in Class 1E service.

This item (NRC#387/82-00-02) was closed during NRC Inspection No. 50-387/82-19 and documented in the subsequent report based on PP&L inspections which revealed that relays containing the subject deficiency were not present in Class 1E circuits.

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

Very truly yours,



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

JBW:pvm

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Mr. R. C. Haynes

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