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October 12, 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 ON IMPROPER
FIELD MOUNTING OF AGASTAT 7000/E7000 RELAYS
ERs 100450/100508 FILE 821-10/840-4
PLA-1341

Reference: PLA-1223 dated August 3, 1982

Dear Mr. Haynes,

This letter serves to provide the Commission with a final report of a deficiency involving the improper field mounting of Agastat 7000/E7000 relays. The deficiency was originally reported to Mr. E. C. McCabe of NRC Region I by A. R. Sabol of PP&L on July 2, 1982 as potentially reportable.

The attachment to this letter contains a description of the problem, its cause, safety implications, and the corrective action. The information contained in this report is submitted pursuant to the provisions of 10CFR50.55(e).

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

We trust the Commission will find the information forwarded by this letter to be satisfactory.

Very truly yours,

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

MHC:pvm

Attachment

October 12, 1982

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SSES PLA-1341
ERs 100450/ Files 821-10/
 100508 840-4
Mr. R. C. Haynes

cc: 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

FINAL REPORT1.0 SUBJECT:

Improperly mounted Agastat 7000/E7000 series relays.

2.0 DESCRIPTION:

The Agastat 7000/E7000 relays were seismically qualified with screws in 4 corners of the relay mounting bracket. This 4 corner screw mounting requirement is specified on the Test Panel Layout drawing of Bechtel Material Requisition 8856-E-407 Appendix D. After identification of the subject potential deficiency, a preliminary field walkdown of Agastat 7000/E7000 relays was performed to better define the extent of problem. This walkdown indicated that numerous Agastat relays were not attached with the required 4 corner screws and that the performance of a complete walkdown was warranted to assure all Agastat relays are mounted with at least 4 corner screws.

3.0 CAUSE:

The requirement for mounting Agastat 7000/E7000 relays with 4 corner screws (required for the seismic qualification of the relays) was not adequately translated into design output documents as an installation and inspection requirement.

4.0 ANALYSIS OF SAFETY IMPLICATIONS:

Due to the improper mounting screw configuration, the relay's operability in affected safety related systems is indeterminate under design basis seismic conditions. Since Agastat timing relays with improper mounting screw configuration were found in control circuits for various safety related systems, a common mode failure is considered possible. PP&L considers this condition to be reportable under the requirements of 10CFR50.55(e).

5.0 CORRECTIVE ACTION TAKEN/TO BE TAKEN:

All safety related Agastat series 7000/E7000 relays installed in Unit 1 were inspected to ensure that they conformed to the required mounting configuration of 4 corner-mounted screws. All relays on Unit 1 that were not properly mounted were identified on PP&L NCR's 82-769 and 82-974 and reworked. Both of these NCR's have been dispositioned and closed.

An inspection was also performed on Unit 2 which indicated that not all Agastat series 7000/E7000 relays were mounted in accordance with the required 4 corner-mounted screw configuration. These relays are documented on Bechtel NCR-9552 and will be reworked as necessary prior to Unit 2 fuel load.

In order to preclude the recurrence of this deficiency, the following corrective measures have and will be taken:

1. Bechtel drawing E-37 sheet 47 (Rev. 0) was issued to specify that all field mounted Agastat 7000/E7000 relays shall be installed using at least 4 corner screws.
2. Bechtel drawing E-37 sheet 47 (Rev. 0) is being incorporated in all applicable PP&L SQRT record binders.

Corrective measure 1 above was done to assure that Bechtel designers will incorporate the 4 corner screw requirement into new Unit #2 Agastat 7000/E7000 Susquehanna Steam Electric Station applications. Drawing E-37 contains notes and details which are required to be reviewed by Bechtel designers during their design process.

Corrective measure 2 above will be completed by October 26, 1982. This corrective action will provide PP&L designers with the 4 corner screw mounting requirement. The PP&L design process includes review of SQRT binders by PP&L design engineers.