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September 22, 1981

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



SUSQUEHANNA STEAM ELECTRIC STATION
INTERIM REPORT OF A POTENTIALLY REPORTABLE
DEFICIENCY INVOLVING AGASTAT 'GP' RELAY BASES
ERs 100450/100508 FILES 840-4/821-10
PLA-930

Dear Mr. Haynes:

This letter serves to provide the Commission with an interim report of a potentially reportable deficiency involving Agastat 'GP' relay bases. The electrical integrity of the wire terminations on the relay bases could be adversely affected in cases where the defect exists. Mr. L. Narrow of NRC Region I was advised of the problem by Mr. A. Sabol of PP&L in a telephone conversation on August 5, 1981. During that conversation, Mr. Narrow was advised that the condition was considered potentially reportable under 10 CFR 50.55(e).

The attachment to this letter contains a description of the problem, its cause, safety implications and the corrective action planned and underway.

Since the details of this report provide information relevant to the reporting requirements of 10 CFR 21, this correspondence is considered to also discharge any formal responsibility PP&L may have in compliance thereto.

We expect to issue a final report on the problem in November, 1981. We expect the Commission will find this information to be satisfactory.

Very truly yours,

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

FLW:sab

Attachment

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Mr. R. C. Haynes

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September 22, 1981

cc: Mr. Victor Stello (15)
Director-Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. G. McDonald, Director (1)
Office of Management Information & Program Control
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Gary Rhoads
U. S. Nuclear Regulatory Commission
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Shickshinny, PA 18655

ATTACHMENT TO PLA-930

Subject

Agastat GP Series Relay Bases

Description of Potential Problem

The Agastat GP 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 problem has been identified with the electrical wire terminations to the relay base. Several relays have been found with terminal screws and/or terminal nuts (referred to as locking springs by Agastat) having stripped threads.

To date, this problem has been identified only in panels supplied by Comsip Custom Line.

Cause

The terminal nut is a thin nut approximately 1/16 in. thick with few screw threads. The nut floats freely, parallel to the direction of travel of the terminal screw. The nut is prevented from rotating by the molded relay base. Because of the nature of the free floating nut, it is possible to cross thread the screw into the nut, thereby stripping the nut. Also, due to the thinness of the nut, overtightening of the screw can also result in stripping the nut. There are no torquing requirements specified by the manufacturer. When the terminal threads are stripped, the electrical integrity of the wire terminations is questionable.

Safety Implications

Project Engineering does not have conclusive evidence as to the cause and nature of the stripped terminal screws. Also, the extent of this problem, which poses the potential for causing Class 1E circuit failures, is unknown. However due to the potential for this defect occurring in Class 1E circuits, it has been determined that this condition is potentially reportable as a significant deficiency under the requirements of 10 CFR 50.55(e).

Corrective Action

An inspection of the electrical terminations on the Agastat GP series relay bases in the panels supplied by Comsip will be initiated by Bechtel to determine the extent of the stripping problem.

The cause and nature of the inadequate terminations will then be reviewed with Comsip and additional action planned accordingly.

Meanwhile, the current corrective action by the Integrated Startup Group is to replace all Agastat GP series relay bases in the panels supplied by Comsip with a different design relay base. The final report on this deficiency is expected to be issued in November, 1981. Bechtel & PP&L NCR's #7492 and 81-392 respectively identify the condition and will control correction.