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Harold W. Keiser
Vice President-Nuclear Operations
215/770-7502

AUG 15 1985

Mr. Richard W. Starostecki, Director
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO ENFORCEMENT ACTION 85-73
(NRC INSPECTION REPORTS 50-387/85-16
AND 50-388/85-15)
ER 100450 FILE 841-04 Docket Nos. 50-387
PLA-2518 50-388

Dear Mr. Starostecki:

This letter provides PP&L's response to your letter of July 16, 1985, which forwarded NRC Region 1 Enforcement Action 85-73 (Inspection Reports 50-387/85-16 and 50-388/85-15).

Your Notice of Violation/Notice of Deviation advised that PP&L was to submit a written reply within thirty (30) days of the date of the letter. We trust that the Commission will find the attached response acceptable.

Very truly yours,

W E Bauerle for

H. W. Keiser
Vice President-Nuclear Operations

Attachments

cc: Mr. R. H. Jacobs - NRC Senior Resident Inspector
Ms. M. J. Campagnone - NRC (NRR Project Manager)

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RESPONSE TO NOTICE OF VIOLATION

Violation A (387/85-16 and 388/85-15)

Technical Specification Limiting Condition for Operation (LCO) 3.7.1.2 for Unit 2 requires that during all operational conditions, two independent Emergency Service Water (ESW) system loops shall be operable with each loop comprised of two operable ESW pumps and an operable flow path capable of taking a suction from the spray pond and transferring the water to the associated safety-related equipment. With one ESW loop inoperable, in Operational Condition 1, 2 or 3, the loop is to be restored to an operable status within 72 hours or the plant is to be in hot shutdown within the next 12 hours.

Contrary to the above, from approximately 5:14 p.m. on April 4, 1985, until 5:00 a.m. on April 21, 1985, while Unit 2 was in Operational Condition 1, the 'A' Loop of ESW was inoperable in that the Spray Pond Bypass Valve, required to be open for loop operation, was closed and not capable of being automatically opened because of an isolated power supply.

Response:

(1) Corrective steps which have been taken and the results achieved:

While attempting to place the "A" ESW Loop in service at 0115, April 21, 1985 the Spray Pond Bypass Valve HV-01222A failed to automatically open.

After a preliminary investigation Technical Specification LCO 3.7.1.2 was entered and a Work Authorization was written to investigate further. Investigation subsequently revealed open sliding links TBA2-27 and 28 in relay panel 1C221A. The links were closed and the pump started at 0358, the LCO was cleared at 0500, April 21, 1985.

Subsequent investigations included:

A. Formation of an ESW Valve Investigation Team.
B. Panel inspections by Plant Maintenance.
C. Engineering Review & Disposition of Sliding Links.
D. Human Performance Evaluation System Review.

The results of the investigations identified the cause of the event as a Contract Construction Electrician opening the subject sliding links without proper authorization.

Corrective actions that PP&L has taken include:

A. A plant wide inspection of sliding link terminals in key panels was performed with a limited number of discrepancies identified.

B. Sliding Link discrepancies were analyzed and dispositioned.

C. Revised the controls applied to Sliding Links during modification activities.

[illegible]

(2) Corrective steps which will be taken to avoid further violations:

A. PP&L will incorporate into plant procedures a station policy concerning the segregation of work activities between contractor and company personnel.

B. PP&L has instituted additional training for contractor construction personnel to increase awareness of station programs.

C. This event has been placed on the Supervisor of Operations Training Agenda for review with operations personnel.

(3) Date of full compliance:

Based on the actions taken in (1) above, PP&L is in full compliance.

Violation B (387/85-16 and 388/85-15)

Unit 2 Technical Specifications require that periodic surveillance be performed on the ESW system. Specifically, Technical Specification 4.7.1.2 requires performance of a valve alignment for the ESW system every 31 days. Technical Specification 4.0.5 requires performance of quarterly pump flow tests and valve exercising tests for pumps and valves in the ESW system. Technical Specification 4.0.2 permits these surveillance intervals to be exceeded by up to 25 percent.

Contrary to the above,

a. A valve alignment of the ESW system was not performed between March 17 and April 25, 1985, a period of 39 days, which exceeds the allowable surveillance interval of 31 days by more than 25 percent.

b. Pump flow tests for pumps in the ESW system were not performed between December 31, 1984 and April 25, 1985, a period exceeding the allowable quarterly surveillance interval by more than 25 percent.

c. Valve exercising tests for valves in the ESW system were not performed between January 1, 1985 and April 25, 1985, a period exceeding the allowable quarterly surveillance interval by more than 25 percent.

Response:

(1) Corrective steps taken and the results achieved:

Overdue surveillances were performed immediately upon identification of the omission. All three surveillances were completed successfully by April 25, 1985.

The cause for the missed surveillances was identified as being the Surveillance Schedule format and resulting lack of clear accountability for conduct of common system surveillances in support of Unit 2.

Corrective actions that PP&L has taken include:

A. Revised the Operations Weekly Surveillance schedule format to include the common surveillances on the Unit 1 and Unit 2 schedules, and assigned accountability to each Unit Supervisor to ensure the common surveillances, required by the condition of the unit he is responsible for, are properly performed.

B. Highlighting the common surveillances so that they stand out from the unit specific surveillances.

C. Revised the Operations Weekly Surveillance schedule to clarify surveillance requirements related to "Out of Service" or "Out of Mode" equipment, loops or systems. A "Condition Required" section has been added to the schedule which indicates the operational conditions which require the surveillance to be completed.

D. Surveillances which are not completed as scheduled appear the following week as outstanding surveillances. Common surveillances which fall into this category are highlighted and appear on the Unit 1 and Unit 2 schedules.

E. The PMIS "Daily Open Surveillance Report" now includes violation dates for listed surveillances.

(2) Corrective steps to be taken to avoid further violations:

This event has been placed on the Supervisor of Operations Training Agenda for review with Operations personnel.

(3) Date of Full Compliance:

Based on the actions taken in (1) above, PP&L is in full compliance.

RESPONSE TO NOTICE OF DEVIATION

Deviation (387/85-16-03)

The Final Safety Analysis Report (FSAR), and Regulatory Guide (RG) 1.106, Revision 1 specifies that thermal overloads in safety related motor operated valves be continuously bypassed. Section C.1 of this RG specifies that the non-bypassing of these thermal overloads be continuously indicated in the control room.

Contrary to the above, thermal overloads on safety-related motor operated valves can be unbypassed by switches on Panel OC697 and this condition is not indicated in the control room.

Response:

PP&L does not consider the lack of control room indication for thermal overloads on the referenced safety-related motor operated valves to be a deviation from the requirements of Regulatory Guide 1.106, Revision 1.

The deviation implies that Regulatory Guide 1.106 requires a Bypass Indication System (BIS) whenever the thermal overload is unbypassed. However, PP&L understands the Regulatory Guide to require a BIS only if unbypassing the thermal overload also causes the system's protective action to become unavailable.

If the interpretation implied by the deviation is correct, then Regulatory Guide 1.47 would apply. This Regulatory Guide establishes requirements for automatic indication which should be provided in the control room for each bypass or deliberately induced inoperability status of a systems protective action.

The second paragraph of requirement C.1 of Regulatory Guide 1.106 references requirements of IEEE Std. 279-1971. Paragraph 4.13 of that standard deals with bypass indication of a system protective action. Regulatory Guide 1.47 provides regulatory guidance for implementation of the IEEE STD's 4.13 requirement. Paragraph C.3 of Regulatory Guide 1.47 provides the following requirement,

> "Automatic indication in accordance with C.1 above should be provided in the control room for each bypass or deliberately induced inoperable status that meets all the following conditions:
>
> a. Renders inoperable any redundant portion of the protection system, systems actuated or controlled by the protection system, and auxiliary or supporting systems that must be operable for the protection system and systems it actuates to perform their safety functions;
>
> b. Is expected to occur more frequently than once per year; and
>
> c. Is expected to occur when the affected system is normally required to be operable."

The valves associated with panel 0C697 are expected to be tested more frequently than once per year. However, they are not expected to be declared inoperable more than once per year.

The operation of the switches on panel 0C697 is covered by Technical Specification Section 3.8.4.2. This requirement specifies that the affected valves be declared inoperable if the unbypassed condition is maintained for 8 hours or more. This condition of inoperability is not expected more frequently than once per year. Further, in the SSES design, inserting the thermal overload (i.e. placing the associated switch on panel 0C697 in the TEST position) does not cause the protective action to become unavailable. Therefore automatic indication is not required and no deviation exists.

The SSES bypass arrangement in the balance of plant design is different from the NSSS design. The NSSS design is more conservative than the BOP design in that unbypassing a MOV thermal overload results in indication and annunciation on the control room inner ring panels. The BOP design does not include this added conservatism. Unlike the NSSS design, the BOP switches which insert the thermal overloads are all located on one control room back row panel and are symmetrically arranged. The switches are two position. There are no other switches on the panel. A visual review provides ready identification of any unbypassed overloads.

In conclusion, PP&L considers the SSES design to be in compliance with Regulatory Guides 1.106 and 1.47 and, further, considers that the design is reasonable towards ensuring that an undetected inoperable status in accordance with the Technical Specifications does not occur.

(1) Corrective actions which will be taken:

PP&L concludes that the only corrective action required is to correct FSAR Section 7.3.1. Section 7.3.1, referenced in the inspection report, states that it is possible to instate overloads for the diesel generator cooler inlet/outlet valves via a bypass switch and that this condition is automatically indicated on the BIS panel.

The statement is in error. These valves are among those represented on panel 0C697 and do not have automatic BIS indication. The FSAR will be corrected. This is an isolated error.

(2) Corrective actions to preclude further deviations:

No further corrective action is necessary.

(3) Date when corrective action will be completed:

The revision to FSAR Section 7.3.1 will be submitted in the next annual FSAR update which is scheduled for July 1986.

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