



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Harold W. Keiser
Senior Vice President-Nuclear
215/774-4194

JUL 02 1992

Mr. Edward C. Wenzinger
Reactor Projects Branch 2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
REPLY TO NOTICE OF VIOLATION
(387/92-06-01)
PLA-3803 FILE R41-2

Docket Nos. 50-387
50-388

Dear Mr. Wenzinger:

This letter provides Pennsylvania Power & Light Company's response to the Notice of Violation for NRC Combined Inspection Report 50-387/92-06 and 50-388/92-06 dated May 26, 1992.

The attached "Reply to a Notice of Violation" specifically addresses PP&L's actions to RPS/EPA breaker trips as noted in the violation. Additional actions are currently being evaluated that address NRC's generic concerns related to effective corrective actions. PP&L is willing to discuss these actions with the Senior Resident and/or Region I personnel upon completion of our evaluation.

The notice required submittal of a written reply within thirty (30) days of the date of the letter. However, as discussed with Mr. John R. White of NRC Region 1 on June 23, 1992, PP&L has been authorized to delay the response until July 2, 1992. We trust that the commission will find the attached response acceptable.

Very truly yours,

H. W. Keiser

Attachment

~~9207092167~~

cc: NRC Document Control Desk (original)
Mr. G. S. Barber, NRC Sr. Resident Inspector
Mr. G. F. Maxwell, Acting NRC Project Manager

REPLY TO A NOTICE OF VIOLATION

A. Violation (387/92-06-01)

10CFR Part 50 Appendix B, Criterion XVI, Corrective Action, and the Susquehanna Quality Assurance Project require that measures be established to assure that conditions adverse to quality, are promptly identified and corrected, including corrective action taken to preclude repetition.

Contrary to the above, since 1984, there have been 34 separate instances where Reactor Protection System (RPS) Electrical Protection Assembly (EPA) breakers were found tripped or where they were known to have tripped. The EPA breaker trips were attributable to "unknown causes" or to problems with EPA logic cards and related components. The frequency of these trips has increased within the past year even through the licensee has taken action to preclude repetition. Thus, the licensee's corrective actions to date have been ineffective and EPA breaker trips continue to occur.

Response

1. Reason for the Violation:

The reason for the violation was:

Prior to 1991, PP&L believed timely and effective efforts to correct EPA breaker trips were being undertaken. These efforts concentrated on an industry effort under the BWR Owner's Group (Electrical Protection Assembly (EPA) study dated January 25, 1991). This effort while beneficial in determining the potential root causes for failures did not provide comprehensive corrective actions. Management recognized in 1991 the need for a more aggressive effort to preclude future breaker trips and established a task team to improve RPS reliability. Current corrective actions resulting from this task team should substantially reduce and/or eliminate future plans transients from EPA/RPS breaker trips.

2. Corrective Steps Which Have Been Taken and the Results Achieved:

- a. The problems related to EPA breaker trips due to large motor starts and the RPS distribution panel design have been resolved through design modification changes.

- b. Short term action to preclude further EPA breaker trips include:
1. Modifying the EPA breaker enclosures by installing louvers to enhance and redirect ventilation cooling air to reduce premature thermal aging.
 2. EPA breaker setpoint calibration procedures have been revised to preclude the wave shape effects which resulted in false EPA trips.
 3. EPA breaker programs have been evaluated and revised to incorporate the "lessons learned" from the previous trips.
 4. As necessary, replacement of EPA breaker components prior to the components end-of-life cycle is being performed.

These activities are completed on Unit 1.

Results of these short term actions should substantially increase the reliability of the RPS power supply. This will allow for the planning, design and implementation of the modification to upgrade the RPS power supply noted in 3.b.

- c. An EPA/RPS breaker task force was formed in May, 1991 to define the RPS power supply problem(s) and make recommendations. As recommendations were developed, work documents were issued for items which could be completed using established work group processes. Long term recommendations were also identified. A separate team was formed to scope and evaluate the long term recommendations.

3. Corrective Steps Which Will Be Taken to Avoid Further Violations:

- a. The short term activities identified in 2.b above will be completed on Unit 2 prior to startup from the units fifth refueling and inspection outage scheduled to begin on September 12, 1992.
- b. A modification to the RPS Power Supply System is under consideration. This modification in part will replace the existing EPA breaker design and relocate the new equipment to reduce the thermal aging problem.

4. *Date of Full Compliance:*

- a. The short term activities identified in 3.a above will be completed prior to startup of the Unit 2 fifth refueling and inspection outage scheduled to begin on September 12, 1992.
- b. Planned modifications to the RPS power supply will be submitted to NRC for review. Installation and implementation of the RPS modifications identified in 3.b will be completed during the following refueling and inspection outage on each unit, after receipt of agreement by NRC of the proposed modifications.

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 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylvania 05000388
 AUTH. NAME AUTHOR AFFILIATION
 KEISER, H.W. Pennsylvania Power & Light Co.
 RECIPIENT NAME RECIPIENT AFFILIATION
 WENZINGER, E.C. Region 1 (Post 820201)

SUBJECT: Responds to violations noted in Insp Repts 50-387/92-06 & 50-388/92-06. Corrective actions: electrical protection assembly breaker encls modified by installing louvers to enhance & redirect ventilation cooling air.

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