Enclosure 2

EGG-NTA-8246

# TECHNICAL EVALUATION REPORT

## CONFORMANCE TO GENERIC LETTER 83-28
## ITEM 2.1 (PART 2) REACTOR TRIP SYSTEM VENDOR INTERFACE
## SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

Docket Nos. 50-387 AND 50-388

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ABSTRACT

This EG&G Idaho, Inc., report documents the review of the submittals from the Pennsylvania Power and Light Company regarding conformance to Generic Letter 83-28, Item 2.1 (Part 2) for the Susquehanna Steam Electric Station, Units 1 and 2.

Docket Nos. 50-387 and 50-388
TAC Nos. 52888 and 59514

## FOREWORD

This report is supplied as part of the program for evaluating licensee/applicant conformance to Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Event." This work is being conducted for the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of Engineering and System Technology, by EG&G Idaho, Inc., Electrical, Instrumentation, and Control Systems Evaluation Unit.

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# 1.0 INTRODUCTION AND SUMMARY

On February 25, 1983, both of the scram circuit breakers at Unit 1 of the Salem Nuclear Power Plant failed to open upon an automatic reactor trip signal from the reactor protection system. This incident was terminated manually by the operator about 30 seconds after the initiation of the automatic trip signal. It was determined that the failure of the circuit breakers was related to the sticking of the undervoltage trip attachment.

Prior to the incident, on February 22, 1983, an automatic trip signal was generated at Unit 1 of the Salem Nuclear Power Plant based on steam generator low-low level during plant start-up. In this case, the reactor was tripped manually by the operator, almost coincidentally with the automatic trip.

Following these incidents, on February 28, 1983, the NRC Executive Director of Operations (EDO) directed the staff to investigate and report on the generic implications of the occurrences at Unit 1 of the Salem Nuclear Power Plant. The results of the staff's inquiry are reported in NUREG-1000, "Generic Implications of the ATWS Events at the Salem Nuclear Power Plant."[1]

As a result of this investigation, the NRC requested (by Generic Letter 83-28, dated July 8, 1983)[2] all licensees of operating reactors, applicants for an operating license, and holders of construction permits to respond to generic issues raised by the analyses of these two ATWS events.

## 2.0 REVIEW REQUIREMENTS

Item 2.1 (Part 2) (Reactor Trip System - Vendor Interface) requires licensees and applicants to establish, implement and maintain a continuing program to ensure that vendor information on reactor trip system (RTS) components is complete, current and controlled throughout the life of the plant. Vendor information must also be appropriately referenced or incorporated into plant instructions and procedures.

The vendor interface program is to include periodic communications, as well as a system of positive feedback with vendors for mailings containing technical information, e.g., licensee/applicant acknowledgment for receipt of technical information.

That part of the vendor interface program which ensures that vendor information on RTS components, once acquired, is appropriately controlled, referenced, and incorporated into plant instructions and procedures, will be evaluated as part of the review of Item 2.2 of the Generic Letter.

Because the Nuclear Steam Supply System (NSSS) vendor ordinarily is the supplier of the entire RTS, the NSSS vendor is also the principal source of information on the components of the RTS. This review of the licensee and applicant submittals will:

1. Confirm that the licensee/applicant has identified a continuing interface with either the NSSS vendor or with the vendors of each RTS component.

2. Confirm that the interface identified by licensee/applicants includes periodic communication with the NSSS vendor or with the vendors of each RTS component.

3. Confirm that the interface identified by licensees/applicants includes a system of positive feedback to confirm receipt of transmittals of technical information.

## 3.0 PLANT RESPONSE EVALUATIONS

The licensee for Susquehanna Units 1 and 2 provided responses to Generic Letter 83-28, Item 2.1 (Part 2) in submittals dated November 6, 1983[3], February 29, 1984[4], May 17, 1985[5], and July 21, 1988[6].

In the first submittal, the licensee stated (in a discussion of Generic Letter Section 2.2.2) that an existing program provides for periodic review of General Electric (GE) Service Information Letters (SILs) and Technical Information Letters (TILs).

In the February 29, 1984, submittal, the licensee reiterated and expanded on the information supplied in the first submittal and assigned it specifically to Generic Letter Section 2.1 (Part 2). The licensee stated that GE Service Advice Letters (SALs) were received and that the SIL program included a mechanism to ensure that the licensee had received the GE Information.

In the third submittal, the licensee stated that their vendor equipment information program is as defined in the March 1984 NUTAC document and that an interface had been established with the NSSS vendor GE

The July 21, 1988, submittal stated that the GE SILs and Rapid Information Communication Services Information Letters (RICSILs) are controlled by a program which includes feedback to GE on resolution of the SIL/RICSIL recommendations.

## 4.0 CONCLUSION

Based on the licensee's submittals, we find that the licensee has implemented a vendor interface program (which includes the NSSS vendor General Electric) for the reactor trip system components and that this program includes periodic communication and positive feedback with the vendor. We find, therefore, that the applicant's responses meet the requirements of Item 2.1 (part 2) of Generic Letter 83-28 and are acceptable.

## 5.0 REFERENCES


1. Generic Implications of ATWS Events at the Salem Nuclear Power Plant, NUREG-1000, Volume 1, April 1983; Volume 2, July 1983.

2. NRC Letter, D. G. Eisenhut to all Licensees of Operating Reactors, Applicants for Operating License, and Holders of Construction Permits, "Required Actions Based on Generic Implications of Salem ATWS Events (Generic Letter 83-28)," July 8, 1983.

3. Letter, Pennsylvania Power and Light Co. (N. W. Curtis) to NRC (D. G. Eisenhut), November 6, 1983.

4. Letter, Pennsylvania Power & Light Co. (N. W. Curtis) to NRC (D. G. Eisenhut), February 29, 1984.

5. Letter, Pennsylvania Power and Light Co. (N. W. Curtis) to NRC (W. R. Butler), May 17, 1985.

6. Letter, Pennsylvania Power & Light Co. (H. W. Keiser) to U.S. NRC, (W. R. Butler), July 21, 1988.

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SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FACILITY NAME Susquehanna Steam Electric Station
Units 1 and 2

SUMMARY OF REVIEW/INSPECTION ACTIVITIES

The SICB has reviewed the licensee's responses to Generic Letter 83-28, Item 2.1 regarding a classification program of the components whose functioning is required to trip the reactor, and an interface program with the vendors of their reactor trip system components.

NARRATIVE DISCUSSION OF LICENSEE PERFORMANCE - FUNCTIONAL AREA

Understanding of issues is generally apparent, and approaches are viable and generally sound and thorough. Responses generally are timely and sufficient for our evaluation.

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DATE: 01 18 89