

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

IMPLICATIONS OF SALEM ATWS EVENTS

EQUIPMENT CLASSIFICATION (RTS COMPONENTS)

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 50-388

INTRODUCTION

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. The incident was terminated manually by the operator about 30 seconds after the initiation of the automatic trip signal. The failure of the circuit breakers was determined to be related to the sticking of the undervoltage trip attachment. Prior to this incident, on February 22, 1983, at Unit 1 of the Salem Nuclear Power Plant, an automatic trip signal was generated 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.

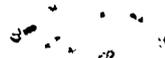
Following these incidents, on February 28, 1983, the NRC Executive Director for Operations (EDO), directed the staff to investigate and report on the generic implications of these occurrences at Unit 1 of the Salem Nuclear Power Plant. The results of the staff's inquiry into the generic implications of the Salem unit incidents are reported in NUREG-1000, "Generic Implications of the ATWS Events at the Salem Nuclear Power Plant." As a result of this investigation, the Commission (NRC) requested (by Generic Letter 83-28 dated July 8, 1983) 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. The issues of concern were: (1) Post-Trip Review, (2) Equipment Classification and Vendor Interface, (3) Post-Maintenance Testing, and (4) Reactor Trip System Reliability Improvements.

This report is an evaluation of the response submitted by Pennsylvania Power & Light Company, the licensee for the Susquehanna Steam Electric Station, Units 1 and 2 for Item 2.1 (Part 1) of Generic Letter 83-28. The staff was assisted in this review by EG&G Idaho as a technical contractor.

Item 2.1 (Part 1) requires the licensee to confirm that all Reactor Trip System components are identified, classified and treated as safety-related as indicated in the following statement:

Licensees and applicants shall confirm that all components whose functioning is required to trip the reactor are identified as safety-related on documents, procedures, and information handling systems used in the plant to control safety-related activities, including maintenance, work orders, and parts replacement.

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EVALUATION

The licensee for the Susquehanna Steam Electric Station, Units 1 and 2 responded to the requirements of Item 2.1 (Part 1) with submittals dated November 4, 1983, and March 1, 1984. The licensee stated in these submittals that all components that are required to perform the reactor trip function were reviewed to verify that these components are classified as safety-related equipment. The licensee further stated that these components are identified as such in documents, procedures, information handling systems used to control safety-related plant activities such as maintenance, work orders, and parts procurement.

CONCLUSION

Based on our review of these responses, we find the licensee's statements confirm that a program exists for identifying, classifying and treating components that are required for performance of the reactor trip function as safety related. This program meets the requirements of Item 2.1 (Part 1) of the Generic Letter 83-28, and is therefore acceptable.

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Dated:

