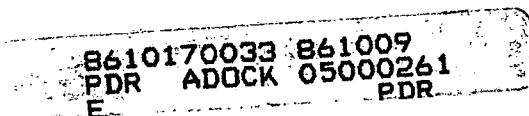


SAFETY EVALUATION REPORT
GENERIC LETTER 83-28, ITEM 2.1 (PART 1)
EQUIPMENT CLASSIFICATION (RTS COMPONENTS)
H. B. ROBINSON PLANT, UNIT 2
DOCKET NO. 50-261

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. 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, 1983¹) 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.



This report is an evaluation of the response submitted by Carolina Power and Light Company, the licensee for the H. B. Robinson Plant, Unit 2, for Item 2.1 (Part 1) of Generic Letter 83-28. The actual documents reviewed as part of this evaluation are listed in the references at the end of the report.

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.

EVALUATION

The licensee for the H. B. Robinson Plant, Unit 2 responded to the requirements of Item 2.1 (Part 1) and Item 2.2.1 with a submittal dated November 7, 1983². The licensee's response to Item 2.2.1 addressed the staff position of Item 2.1 (Part 1). That section of the submittal stated that a Q-list had been developed to identify safety-related structures, systems and components. It also stated that the Q-list includes plant items required to make and hold the reactor sub-critical during the occurrence of frequent, infrequent and limiting plant process conditions. We take this to mean that the components required to trip the reactor have been

designated safety-related. The submittal provided a description of the administrative procedures used to control safety-related activities and stated that maintenance, surveillance and procurement activities are controlled by the Q-list.

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.

REFERENCES

1. 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.
2. Letter, A. B. Cutter, Carolina Power and Light Co., to D. G. Eisenhut, NRC, November 7, 1983.

ENCLOSURE

ICSB SALP INPUT

PLANT: H. B. Robinson Plant, Unit 2
SUBJECT: Review of G.L. 83-28, Item 2.1 (Part 1)

EVALUATION CRITERIA	PERFORMANCE CATEGORY	BASIS
Management Involvement	N/A	No basis for assessment.
Approach to Resolution of Technical Issues	2	Although adequate, the response did not directly address the staff position of Generic Letter 83-28.
iii. Responsiveness	1	The licensee confirmed that a program was implemented and that the results of that program met the requirements of the generic letter.
iv. Enforcement History	N/A	No basis for assessment.
5. Reportable Events	N/A	No basis for assessment.
6. Staffing	N/A	No basis for assessment.
7. Training	N/A	No basis for assessment.

CONFORMANCE TO GENERIC LETTER 83-28
ITEM 2.1 (PART 1) EQUIPMENT CLASSIFICATION (RTS COMPONENTS)

ROBINSON 2
SALEM 1 AND 2
SAN ONOFRE 1
SEABROOK 1 AND 2

R. Haroldsen

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EG&G Idaho, Inc.
Idaho Falls, Idaho 83415

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ABSTRACT

This EG&G Idaho, Inc. report provides a review of the submittals from selected operating and applicant Pressurized Water Reactor (PWR) plants for conformance to Generic Letter 83-28, Item 2.1 (Part 1). The following plants are included in this review.

<u>Plant Name</u>	<u>Docket Number</u>	<u>TAC Number</u>
Robinson 2	50-261	52875
Salem 1	50-272	52876
Salem 2	50-311	52877
San Onofre 1	50-206	52878
Seabrook 1	50-443	OL
Seabrook 2	50 444	OL

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 Events." This work is being conducted for the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of PWR Licensing-A, by the EG&G Idaho, Inc.

The U.S. Nuclear Regulatory Commission funded this work under the authorization B&R 20-19-10-11-3 and 20-19-40-41-3, FIN Nos. D6001 and D6002.

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1. 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. The failure of the circuit breakers was determined to be 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 startup. 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 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 1 incidents 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 Commission (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.

This report is an evaluation of the responses submitted from a group of similar pressurized water reactors for Item 2.1 (Part 1) of Generic Letter 83-28.

The results of the reviews of several plant responses are reported on in this document to enhance review efficiency. The specific plants reviewed in this report were selected based on the similarity of plant design and convenience of review. The actual documents which were reviewed

for each evaluation are listed at the end of each plant evaluation. The generic documents referenced in this report are listed at the end of the report.

Part 1 of Item 2.1 of Generic Letter 83-28 requires the licensee or applicant 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.

2. PLANT RESPONSE EVALUATIONS

2.1 Robinson 2, 50-261, TAC No. 52875

The licensee for Robinson 2 (Carolina Power and Light Co.) provided a response to Item 2.1 (Part 1) in a submittal dated November 7, 1983. The section of this submittal identified as response to Item 2.1 did not include sufficient information to evaluate compliance. This evaluation of the licensee's response to Item 2.1 (Part 1) is based on information provided in the licensee's response to Item 2.2.1 in a subsequent section of the same submittal.

That section of the submittal states that a Q-list has been developed to identify safety-related structures, systems and components. It also states that the Q-list includes plant items required to make and hold the reactor sub-critical during the occurrence of frequent, infrequent and limiting plant process conditions. We take this to mean that the components required to trip the reactor have been designated safety-related. The submittal provides a description of the administrative procedures used to control safety-related activities and states that maintenance, surveillance and procurement activities are controlled by the Q-list which determines those components which require additional controls.

2.2 Conclusions

Based on the review of the licensee's submittal, we find that the components necessary to perform reactor trip are classified as safety-related and that activities relating to safety-related components are controlled by procedures which reflect the necessary requirements for handling safety-related components. We, therefore, find that the licensee's responses meet the requirements of Item 2.1 (Part 1) of Generic Letter 83-28 and are acceptable.

Reference

1. Letter, A. B. Cutter, Carolina Power and Light Co., to D. G. Eisenhut, NRC, November 7, 1983.

2.3 Salem 1 and 2, 50-272/311, TAC Nos. 52876/52877

The licensee for Salem 1 and 2 (Public Service Electric and Gas Co.) provided relevant information for Item 2.1 (Part 1) in a series of submittals. Submittals dated March 8, March 14 and April 17, 1983 described the licensee's program for upgrading the equipment classification system at Salem 1. The staff had found that problems with the Master Equipment List (MEL) at Salem highlighted the need for reliable administrative controls over the development and use of components lists for determining the safety-classification of equipment. There had existed considerable confusion as to the status, use, and procedural requirements associated with the MEL. As a result some activities involving safety-related equipment were conducted which did not utilize controlled QA procedures.

The submittals described a program to review the MEL to determine the completeness, validate equipment classification and to reissue the MEL as a controlled document. The Q-list is the subset of the MEL which identifies activities, services, structures, components and systems to which the safety-related classification applies for work orders and station procurement documents. This upgrading program was projected for completion by May 1983. The April 7, 1983 submittal stated that the MEL had been reviewed and reissued for several systems including the reactor protection system.

This work was said to be completed on March 24, 1983 and included upgrading of procurement, work orders and other procedures relating to classified equipment. The review was to be extended to all systems and completed by May 1983. While these earlier submittals referred only to the Salem 1 plant, later submittals dated April 8 and May 31, 1983 confirmed that the program for Salem 2 had also been similarly upgraded.

2.4 Conclusion

Based on the review of the licensee's submittals, we find that the components necessary to perform reactor trip are classified as safety-related and that activities relating to safety-related components are controlled by procedures which reflect the necessary requirements for handling safety-related components. We, therefore, find that the licensee's responses meet the requirements of Items 2.1 (Part 1) of Generic Letter 83-28 and are acceptable.

References

1. Letter, R. A. Uderitz, Public Service Electric and Gas Co., to R. A. Starostecki, NRC, March 8, 1983.
2. Letter, R. A. Uderitz, Public Service Electric and Gas Co., to D. G. Eisenhut, NRC, March 14, 1983.
3. Letter, R. A. Uderitz, Public Service Electric and Gas Co., to D. G. Eisenhut, NRC, April 7, 1983.
4. Letter, R. A. Uderitz, Public Service Electric and Gas Co., to D. G. Eisenhut, NRC, April 8, 1983.
5. Letter, R. A. Uderitz, Public Service Electric and Gas Co., to D. G. Eisenhut, NRC, May 31, 1983.

2.5 San Onofre Unit 1, 50-206, TAC No. 52872

The licensee for San Onofre Unit 1 (Southern California Edison Co.) provided a response to Item 2.1 (Part 1) in a submittal dated November 28, 1983. The submittal states that all components whose functioning is required to trip the reactor are classified as safety-related on the Q-list. All documents, procedures and information handling systems used to control safety-related activities, including maintenance, work orders, and parts replacement, are based on the Q-list. The Q-list is

consulted during development of plant documents to determine the safety classification of each activity to be performed.

2.6 Conclusion

Based on the review of the licensee's submittal, we find that the components necessary to perform reactor trip are classified as safety-related and that activities relating to safety-related components are controlled by procedures which reflect the necessary requirements for handling safety-related components. We, therefore, find that the licensee's response meets the requirements of Items 2.1 (Part 1) of Generic Letter 83-28 and is acceptable.

Reference

1. Letter, M. O. Medford, Southern California Edison Co., to D. M. Crutchfield, NRC, November 28, 1983.

2.7 Seabrook 1 and 2, 50-443/444

The applicant for Seabrook 1 and 2 (Public Service Co. of New Hampshire) provided responses to Item 2.1 (Part 1) in submittals dated November 4, 1983 and August 22, 1985. In the first submittal the applicant stated that the reactor trip system components would be identified as safety-related and that the identification would be incorporated into administrative system to control safety-related activities. This effort was to be completed 3 months prior to fuel load. In the August 22, 1985 submittal the applicant confirmed that the classification of safety-related reactor trip system components had been completed and referenced in design, operating and maintenance documents.

2.8 Conclusions

Based on the review of the applicant's submittals we find that the components necessary to perform reactor trip have been classified safety-related and that the component classification is appropriately

referenced in plant documents and include the necessary requirements for handling safety-related components. We, therefore, find that the applicant's responses meet the requirements of Item 2.1 (Part 1) of Generic Letter 83-28 and are acceptable.

References

1. Letter, J. De Vincentis, Public Service Company of New Hampshire, to G. W. Knighton, NRC, November 4, 1983.
2. Letter, G. S. Thomas, Public Service Company of New Hampshire, to G. W. Knighton, NRC, August 22, 1985.

3. GENERIC 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.