

SAFETY EVALUATION REPORT  
GENERIC LETTER 83-28, ITEM 2.1 (PART 2)  
VENDOR INTERFACE PROGRAMS (RTS COMPONENTS)  
HADDAM NECK PLANT  
DOCKET NO. 50-213

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, 1983<sup>1</sup>) 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 the Northeast Utilities, the licensee for the Haddam Neck Plant for Item 2.1 (Part 2) of Generic Letter 83-28. The actual documents reviewed as part of this evaluation are listed at the end of the report.

Item 2.1 (Part 2) requires the licensee/applicant to confirm that an interface has been established with the NSSS or with the vendors of each of the components of the Reactor Trip System which includes:

- periodic communication between the licensee/applicant and the NSSS or the vendors of each of the components of the Reactor Trip System, and

- a system of positive feedback which confirms receipt by the licensee/applicant of transmittals of vendor technical information.

#### EVALUATION

The licensee for the Haddam Neck Plant responded to the requirements of Item 2.1 (Part 2) with submittals dated November 8, 1983<sup>2</sup> and March 5, 1987<sup>3</sup>. The licensee confirms that Westinghouse is the NSSS for Haddam Neck and that the reactor trip system (RTS) is included as part of the Westinghouse interface program established for this plant. The response also confirms that this interface program includes both periodic communication between Westinghouse and the licensee and positive feedback from the licensee in the form of signed receipts for technical information transmitted by Westinghouse.

### CONCLUSION

We find the licensee's statements confirm that a vendor interface program exists with the NSSS vendor for components that are required for performance of the reactor trip function. This program meets the requirements of Item 2.1 (Part 2) 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. Northeast Utilities letter to NRC, W. G. Council to Darrell G. Eisenhut, Director, Division of Licensing, November 8, 1983.
3. Northeast Utilities letter to NRC, E. J. Mroczka to Document Control Desk, "Generic Letter 83-28, Item 2.1.2," March 5, 1987.



CONFORMANCE TO  
ITEM 2.1 (PART 2) OF GENERIC LETTER 83-28  
REACTOR TRIP SYSTEM VENDOR INTERFACE  
COOK-1 AND -2  
HADDAM NECK

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### ABSTRACT

This EG&G Idaho, Inc. report provides a review of the submittals for three of the Westinghouse (W) nuclear plants for conformance to Generic Letter 83-28, Item 2.1 (Part 2). The report includes the following Westinghouse plants, and is in partial fulfillment of the following TAC Nos.:

<u>Plant</u>	<u>Docket Number</u>	<u>TAC Number</u>
Cook-1	50-315	52827
Cook-2	50-316	52828
Haddam Neck	50-213	52843

## FOREWORD

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

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## CONTENTS

ABSTRACT .....	11
FOREWORD .....	111
1. INTRODUCTION .....	1
2. REVIEW REQUIREMENTS .....	2
3. GROUP REVIEW RESULTS .....	3
4. REVIEW RESULTS FOR COOK-1 AND -2 .....	4
4.1 Evaluation .....	4
4.2 Conclusion .....	4
5. REVIEW RESULTS FOR HADDAM NECK .....	5
5.1 Evaluation .....	5
5.2 Conclusion .....	5
6. GROUP CONCLUSION .....	6
7. REFERENCES .....	7

CONFORMANCE TO  
ITEM 2.1 (PART 2) OF GENERIC LETTER 83-28  
REACTOR TRIP SYSTEM VENDOR INTERFACE  
COOK-1 AND -2  
HADDAM NECK

1. INTRODUCTION

On July 8, 1983, Generic Letter 83-28<sup>1</sup> was issued by D. G. Eisenhut, Director of the Division of Licensing, Office of Nuclear Reactor Regulation, to all licensees of operating reactors, applicants for operating licenses, and holders of construction permits. This letter included required actions based on generic implications of the Salem ATWS events. These requirements have been published in Volume 2 of NUREG-1000, "Generic Implications of ATWS Events at the Salem Nuclear Power Plant."<sup>2</sup>

This report documents the EG&G Idaho, Inc. review of the submittals of three of the Westinghouse plants, Cook-1 and -2 and Haddam Neck, for conformance to Item 2.1 (Part 2) of Generic Letter 83-28. The submittals from the licensees utilized in these evaluations are referenced in Section 7 of this report.



## 2. 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, and appropriately referenced or incorporated in plant instructions and procedures. The vendor interface program is to include periodic communications with vendors to assure that all applicable information has been received, as well as a system of positive feedback with vendors for mailings containing technical information, e. g., licensee/applicant acknowledgement 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 in plant instructions and procedures, will be evaluated as part of the review of Item 2.2 of the Generic Letter.

Because the Nuclear Steam System Supplier (NSSS) is ordinarily also the supplier of the entire RTS, the NSSS 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 an interface with either the NSSS or with the vendors of each of the components of the Reactor Trip System.
2. Confirm that the interface identified by licensees/applicants includes periodic communication with the NSSS or with the vendors of each of the components of the Reactor Trip System.
3. Confirm that the interface identified by licensees/applicants includes a system of positive feedback to confirm receipt of transmittals of technical information.

### 3. GROUP REVIEW RESULTS

The relevant submittals from each of the included reactor plants were reviewed to determine compliance with Item 2.1 (Part 2). First, the submittals from each plant were reviewed to establish that Item 2.1 (Part 2) was specifically addressed. Second, the submittals were evaluated to determine the extent to which each of the plants complies with the staff guidelines for Item 2.1 (Part 2).

#### 4. REVIEW RESULTS FOR D. C. COOK-1 AND -2

##### 4.1 Evaluation

Indiana and Michigan Electric Company, the licensee for D. C. Cook, provided their responses to Item 2.1 (Part 2) of the Generic Letter on March 30, 1984, April 10, 1985, and December 31, 1986. In those responses, the licensee describes the D. C. Cook interface program established for the RTS.

The interface program for the RTS described includes annual contact with each RTS component vendor and a system of positive feedback with the component vendors.

##### 4.2 Conclusion

We find the program described in the licensee's submittal for the interface program for the RTS meets the staff position on Item 2.1 (Part 2) of the Generic Letter and is, therefore, acceptable.



## 5. REVIEW RESULTS FOR HADDAM NECK

### 5.1 Evaluation

Connecticut Yankee Atomic Power Company, the licensee for Haddam Neck, provided their responses to Item 2.1 (Part 2) of the Generic Letter on November 8, 1983, and March 5, 1987. In those responses, the licensee confirms that the NSSS for Haddam Neck is Westinghouse and that the Reactor Trip System (RTS) for Haddam Neck is included as a part of the Westinghouse interface program established for the Haddam Neck NSSS.

The Westinghouse interface program for the NSSS includes both periodic communication between Westinghouse and licensees/applicants and positive feedback from licensees/applicants in the form of signed receipts for technical information transmitted by Westinghouse.

### 5.2 Conclusion

We find the licensee's confirming statement that Haddam Neck is a participant in the Westinghouse interface program for the RPS meets the staff position on Item 2.1 (Part 2) of the Generic Letter and is, therefore, acceptable.

## 6. GROUP CONCLUSION

We conclude that the licensee/applicant responses for the listed Westinghouse plants for Item 4.5.2 of Generic Letter 83-28 are acceptable.

## 7. 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. Generic Implications of ATWS Events at the Salem Nuclear Power Plant NUREG-1000, Volume 1, April 1983; Volume 2, July 1983.
3. Indiana and Michigan Electric Company letter to NRC, M. P. Alexich to D. G. Eisenhut, Director, Division of Licensing, "Required Actions Based on Generic Implications of Salem ATWS Events (Generic Letter 83-28)," March 30, 1984.
4. Indiana and Michigan Electric Company letter to NRC, M. P. Alexich to H. R. Denton, Director, Division of Licensing, "Additional Information Requested in Response to Generic Letter 83-28," April 10, 1985.
5. Indiana and Michigan letter to NRC, M. P. Alexich to Office of Nuclear Reactor Regulation, "Generic Letter 83-28, Items 2.1 and 2.2, Pertaining to Vendor Information Control System (VICS)," December 31, 1986.
6. Northeast Utilities letter to NRC, W. G. Council to Darrel G. Eisenhut, Director, Division of Licensing, November 8, 1983.
7. Northeast Utilities letter to NRC, E. J. Mroczka to Document Control Desk, "Generic Letter 83-28, Item 2.1.2," March 5, 1987.



ENCLOSURE

PAEI SALP INPUT

PLANT: Haddam Neck Plant  
SUBJECT: Review of G.L. 83-28 Item 2.1 (Part 2)

EVALUATION CRITERIA	PERFORMANCE CATEGORY	BASIS
Management Involvement	N/A	No basis for assessment.
Approach to Resolution of Technical Issues	1	Approach was direct and enabled ready verification of the acceptability of their program.
Responsiveness	1	The licensee described their program which meets the requirements of this generic letter item.
1. 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.