

EGG-NTA-7308

TECHNICAL EVALUATION REPORT

CONFORMANCE TO GENERIC LETTER 83-28, ITEM 2.2.1--
EQUIPMENT CLASSIFICATION FOR ALL OTHER SAFETY-RELATED COMPONENTS:
SUSQUEHANNA-1/-2

Docket Nos. 50-387/50-388

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SUMMARY

This EG&G Idaho, Inc., report provides a review of the submittals from Unit Nos. 1 and 2 of the Susquehanna Steam Electric Station for conformance to Generic Letter 83-28, Item 2.2.1. Item 2.2.1 of Generic Letter 83-28 requires licensees and applicants to submit a detailed description of their programs for safety-related equipment classification for staff review. It also describes guidelines that the programs should encompass. This review concludes that the licensee complies with the requirements of this item.

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PREFACE

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 Engineering and System Technology, by EG&G Idaho, Inc., Regulatory and Technical Assistance Unit.

CONTENTS

SUMMARY	ii
PREFACE	iii
1. INTRODUCTION	1
2. REVIEW CONTENT AND FORMAT	2
3. ITEM 2.2.1 - PROGRAM	3
3.1 Guideline	3
3.2 Evaluation	3
3.3 Conclusion	3
4. ITEM 2.2.1.1 - IDENTIFICATION CRITERIA	4
4.1 Guideline	4
4.2 Evaluation	4
4.3 Conclusion	4
5. ITEM 2.2.1.2 - INFORMATION HANDLING SYSTEM	5
5.1 Guideline	5
5.2 Evaluation	5
5.3 Conclusion	6
6. ITEM 2.2.1.3 - USE OF THE EQUIPMENT CLASSIFICATION LISTING	7
6.1 Guideline	7
6.2 Evaluation	7
6.3 Conclusion	7
7. ITEM 2.2.1.4 - MANAGEMENT CONTROLS	8
7.1 Guideline	8
7.2 Evaluation	8
7.3 Conclusion	8
8. ITEM 2.2.1.5 - DESIGN VERIFICATION AND PROCUREMENT	9
8.1 Guideline	9
8.2 Evaluation	9
8.3 Conclusion	9
9. ITEM 2.2.1.6 - "IMPORTANT-TO-SAFETY" COMPONENTS	10
9.1 Guideline	10
10. CONCLUSION	11
11. REFERENCES	12

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1. INTRODUCTION

On February 25, 1983, both of the scram circuit breakers at Unit 1 of the Salem Generating Station 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 Generating Station, an automatic trip signal was generated 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 for Operations (EDO) directed the NRC staff to investigate and report on the generic implications of these occurrences at Unit 1 of the Salem Generating Station. The results of the staff's inquiry into the generic implications of the Salem-1 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) that all licensees of operating reactors, applicants for an operating license, and holders of construction permits respond to the generic issues raised by the analyses of these two ATWS events.

This report is an evaluation of the responses submitted by the Pennsylvania Power & Light Company, the licensee for the Susquehanna Steam Electric Station, for Item 2.2.1 of Generic Letter 83-28. The documents reviewed as a part of this evaluation are listed in the References (Section 11) at the end of this report.

3. ITEM 2.2.1 - PROGRAM

3.1 Guideline

Licensees should confirm that an equipment classification program is in place that will provide assurance that safety-related components are designated as safety-related on plant documentation. The program should provide assurance that the equipment classification information handling system is used so that activities that may affect safety-related components are designated safety-related. By using the information handling system, personnel are made aware that they are working on safety-related components and are directed to, and are guided by, safety-related procedures and constraints. Licensee responses that address the features of this program are evaluated in the remainder of this report.

3.2 Evaluation

The licensee for the Susquehanna Steam Electric Station responded to these requirements with submittals dated November 4, 1983,² and March 1, 1984.³ These submittals describe the licensee's safety-related equipment classification program. The licensee's Quality Consideration Lists (QCLs) and the component Q-list, which is a part of the QCL, form the information handling system referred to. In the review of the licensee's response to this item, it was assumed that the information and documentation supporting this program is available for audit upon request.

3.3 Conclusion

We have reviewed the licensee's submittals and find that the licensee's program is acceptable, as indicated in the following sections.

5. ITEM 2.2.1.2 - INFORMATION HANDLING SYSTEM

5.1 Guideline

The licensee should confirm that the program for equipment classification includes an information handling system that is used to identify safety-related components. The response should confirm that this information handling system includes a list of safety-related equipment and that procedures exist which govern its development and validation.

5.2 Evaluation

The licensee states that the Quality Consideration Lists (QCLs), which includes the Q-list (safety-related items only), fire protection (F-List), ASME-Code, Non-Q (A-List), and quality group D augmented (D-List), define all quality systems, components, and structures. The licensee states that the Q-list, which lists safety-related systems, structures, and components, is based on Table 3.2.2 of the Final Safety Analysis Report.

The licensee states that the QCLs were originally developed and are now controlled and updated by the nuclear plant engineering department in accordance with procedures. Nuclear Department Instruction NDI-QA-15.1.2, "Quality Consideration Lists," designates the manager of the nuclear plant engineering department as the responsible individual for providing safety classifications of systems, structures, and components, for development and updating the QCLs, for controlling design documents and databases containing quality classifications, and for controlling computer programs that are important to safety. The QCLs are issued periodically as controlled documents by the manager of the nuclear administration department. The licensee's Operational Quality Assurance Program audits these procedures to assure that they are followed for the classification of listed items, that items are verified correctly entered, that unauthorized changes to the QCLs are prevented, and that the QCLs are maintained and distributed as official, consistent, and unambiguous documents.

7. ITEM 2.2.1.4 - MANAGEMENT CONTROLS

7.1 Guideline

The licensee should briefly describe the management controls that are used to verify that the procedures for the preparation, validation, and routine utilization of the information handling system have been, and are being, followed.

7.2 Evaluation

The licensee's response states that their Operational Quality Assurance Program serves as the method of managerial control. Periodic reviews and audits, and other unspecified management controls, are used to verify the preparation, validation, and routine use of the QCLs and to assure that safety-related activities and their implementation are correct. Changes to the SEIS data are controlled by Index Change Notice (ICN) Forms 15.2.12A through 15.2.12K, part of NDI-QA-15.2.12. The nuclear plant engineering department is responsible for the preparation, validation, and upkeep of the SEIS, by following a Software Quality Assurance Plan and using the system and computer services department for technical support. The nuclear quality assurance department performs audits and surveillances of the activities involving the preparation, validation, and upkeep of the SEIS. These quality assurance activities inform management of the status and performance of the equipment classification system.

7.3 Conclusion

We find that the management controls used by the licensee assure that the information handling system is maintained, is current, and is used as intended. Therefore, we find the licensee's responses for this item acceptable.

9. ITEM 2.2.1.6 - "IMPORTANT-TO-SAFETY" COMPONENTS

9.1 Guideline

Generic Letter 83-28 states that the licensee's equipment classification program should include (in addition to the safety-related components) a broader class of components designated as "Important to Safety." However, since the generic letter does not require the licensee to furnish this information as part of their response, this item will not be reviewed.

11. REFERENCES

1. Letter, NRC (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, Pennsylvania Power & Light Company, (N. W. Curtis) to NRC (D. G. Eisenhut), "Response to Generic Letter 83-28," November 4, 1983, ER 100450/100508, File 841-2, PLA-1827.
3. Letter, Pennsylvania Power & Light Company, (N. W. Curtis) to NRC (D. G. Eisenhut), "Revised Response to Generic Letter 83-28," March 1, 1984, ERS 100450/100508, File 841-2, PLA-2095.

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10. SUPPLEMENTARY NOTES

11. ABSTRACT *(200 words or less)*

This EG&G Idaho, Inc., report provides a review of the submittals from the Susquehanna Steam Electric Station for conformance to Generic letter 83-28, Item 2.2.1. Item 2.2.1 of Generic Letter 83-28 requires licensees and applicants to submit a detailed description of their programs for safety-related equipment classification for staff review. It also describes guidelines that the licensee's or applicant's programs should encompass. The review concludes that the licensee complies with the requirements of this item.

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