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INFORMAL REPORT

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

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Prepared for the

U.S. NUCLEAR REGULATORY COMMISSION

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TECHNICAL EVALUATION REPORT

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

Docket No. 50-247

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ABSTRACT

This EG&G Idaho, Inc., report provides a review of the submittal from Indian Point Unit No. 2 regarding conformance to Generic Letter 83-28, Item 2.2.1.

Docket No. 50-247
TAC No. 53680

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 EG&G Idaho, Inc., NRR and I&E Support Branch

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

1. 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. 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 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 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[1]) all licensees of operating reactors, applicants for an operating license, and holders of construction permits to respond to the generic issues raised by the analyses of these two ATWS events.

This report is an evaluation of the response submitted by Consolidated Edison Company of New York, Inc., the licensee for Indian Point Unit No. 2, for Item 2.2.1 of Generic Letter 83-28. The document reviewed as a part of this evaluation is listed in the references at the end of this report.

2. REVIEW CONTENT AND FORMAT

Item 2.2.1 of Generic Letter 83-28 requests the licensee or applicant to submit, for the staff review, a description of their programs for safety-related equipment classification including supporting information, in considerable detail, as indicated in the guideline section for each sub-item within this report.

As previously indicated, each of the six sub-items of Item 2.2.1 is evaluated in a separate section in which the guideline is presented; an evaluation of the licensee's/applicant's response is made; and conclusions about the programs of the licensee or applicant for safety-related equipment classification are drawn.

3. ITEM 2.2.1 - PROGRAM

3.1 Guideline

Licensees and applicants should confirm that an equipment classification program exists which provides assurance that all safety-related components are designated as safety-related on all plant documents, drawings and procedures and in the information handling system that is used in accomplishing safety-related activities, such as work orders for repair, maintenance and surveillance testing and orders for replacement parts. Licensee and applicant responses which address the features of this program are evaluated in the remainder of this report.

3.2 Evaluation

The licensee for Indian Point Unit No. 2 responded to these requirements with submittals dated November 4, 1983[2] and March 26, 1987.[3] These submittals include information that describes their existing safety-related equipment classification program. 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.

The licensee states that they are using Exhibit A of their Corporate Instruction-240-1, "Quality Assurance Program for Operating Nuclear Plants," as the information handling system (Class A systems) referred to. This is used in concert with their computerized Component List. Station Administrative Order (SAO) No. 204, "Work Order Procedure," requires the safety-classification to be designated on every work order. The work order is the vehicle used to perform maintenance or modifications at Indian Point-2. Thus, workers preparing to work on a safety-related component or system will be aware that it is safety-related prior to the initiation of work.

3.3 Conclusion

We have reviewed the licensee's information and, in general, find that the licensee's response is adequate.

4. ITEM 2.2.1.1 - IDENTIFICATION CRITERIA

4.1 Guideline

The applicant or licensee should confirm that their program used for equipment classification includes criteria used for identifying components as safety-related.

4.2 Evaluation

The licensee's response identified and provided the criteria for determining what plant items are safety-related. The criteria includes those systems, structures or components 1) that comprise or are necessary to ensure the integrity of the reactor coolant system pressure boundary, 2) that ensure the capability to shutdown the reactor and to maintain it in a safe shutdown condition, 3) whose failure could result in offsite doses that exceed 0.5 Rem to the whole body or the equivalent to any part of the body or 4) structures whose failure could reduce the functioning of a safety-related system, structure or component to an unacceptable level of safety.

4.3 Conclusion

We find that the criteria used in the identification of safety-related components meet the requirements of Item 2.2.1.1 and are acceptable.

5. ITEM 2.2.1.2 - INFORMATION HANDLING SYSTEM

5.1 Guideline

The licensee or applicant 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's submittal identifies the list of Class A systems as the index that identifies safety-related components. The licensee's description of the Component List (of Class A systems) confirms that it is detailed to the component level. The Component List was prepared and validated, and revisions will be entered in accordance with Corporate Instruction CI-240-1, "System Boundary Classification Package." The Component List is accessible by computer terminal.

5.3 Conclusion

We find that the information contained in the licensee's submittals is sufficient for us to conclude that the licensee's information handling system for equipment classification meets the guideline requirements. Therefore, the information provided by the licensee for this item is acceptable.

6. ITEM 2.2.1.3 - USE OF EQUIPMENT CLASSIFICATION LISTING

6.1 Guideline

The licensee's or applicant's description should confirm that their program for equipment classification includes criteria and procedures which govern how station personnel use the equipment classification information handling system to determine that an activity is safety-related and what procedures for maintenance, surveillance, parts replacement and other activities defined in the introduction to 10 CFR 50, Appendix B, apply to safety-related components.

6.2 Evaluation

The licensee states that Station Administrative Order SAO-104, "Maintenance Work Request (MWR) Procedure" is used to control the above listed maintenance and modification activities. The procedure requires the authorizer to identify safety-related activities by consulting the list of Class A systems. The MWR form has a space provided to indicate the safety-related classification of the activity. Engineering Procedure OP-290-1 is used similiarly for engineering modifications. Approved written procedures are used in conjunction with the equipment classification information handling system in maintenance, testing, design changes, engineering support, setpoint changes or special tests or studies.

6.3 Conclusion

We find that the licensee's description of plant administrative controls and procedures meets the requirements of this item and is, therefore, acceptable.

7. ITEM 2.2.1.4 - MANAGEMENT CONTROLS

7.1 Guideline

The applicant or licensee should confirm that the management controls used to verify that the procedures for preparation, validation and routine utilization of the information handling system have been followed.

7.2 Evaluation

The licensee states that their quality assurance program assures that the subject administrative provisions are adhered to. The program includes the monitoring of programmatic requirements, audits and inspection and review of maintenance, procurement and modification procedure processes.

7.3 Conclusion

We find that the licensee's description meets the requirements of this item and is, therefore, acceptable.

8. ITEM 2.2.1.5 - DESIGN VERIFICATION AND PROCUREMENT

8.1 Guideline

The applicant's or licensee's submittal should document that past usage demonstrates that appropriate design verification and qualification testing is specified for the procurement of safety-related components and parts. The specifications should include qualification testing for expected safety service conditions and provide support for the applicant's/licensee's receipt of testing documentation to support the limits of life recommended by the supplier. If such documentation is not available, confirmation that the present program meets these requirements should be provided.

8.2 Evaluation

The licensee's submittal states that the procurement of Class A parts includes design verification and qualification testing, as required by design bases, 10 CFR 50 or other NRC requirements. The licensee has stated that documentation, verification of design capability and evidence of component life testing is required as part of the procurement documents.

8.3 Conclusion

The licensee's response for this item is considered complete. The information provided addresses the concerns of this item and is 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, review of this item will not be performed.

10. CONCLUSION

Based on our review of the licensee's response to the specific requirements of Item 2.2.1, we find that the information provided by the licensee to resolve the concerns of Items 2.2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.4 and 2.2.1.5 meet the requirements of Generic Letter 83-28 and is acceptable. Item 2.2.1.6 was not reviewed as noted in Section 9.1.

11. 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, Consolidated Edison Company of New York, Incorporated, (J. D. O'Toole) to NRC (D. G. Eisenhut), November 4, 1983.

3. Letter, Consolidated Edison Company of New York, Incorporated, (M. Selman) to NRC (M. M. Slasson), March 26, 1987, 190.3.12.3.

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