

ENCLOSURE

SAFETY EVALUATION REPORT

GENERIC LETTER 83-28, ITEMS 3.1.3 AND 3.2.3

POST-MAINTENANCE TESTING (RTS COMPONENTS,

ALL OTHER SAFETY-RELATED COMPONENTS)

BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2

DOCKET NOS. STN 50-454, STN 50-455, STN 50-456 AND STN 50-457

INTRODUCTION AND SUMMARY

Generic Letter 83-28¹ describes intermediate term actions to be taken by licensees and applicants to address the generic issues raised by the two ATWS events that occurred at Unit 1 of Salem Nuclear Power Plant.

This report is an evaluation of the responses submitted by Commonwealth Edison Company, the licensee for Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, for Items 3.1.3 and 3.2.3 of the Generic Letter. The actual documents reviewed as part of this evaluation are listed in the references at the end of this report.

The requirements for these two items are identical with the exception that Item 3.1.3 applies these requirements to the Reactor Trip System components and Item 3.2.3 applies them to all other safety-related components. Because of this similarity, the responses to both items were evaluated together.

REQUIREMENT

Licensees and applicants shall identify, if applicable, any post-maintenance test requirements in existing Technical Specifications which can be demonstrated to degrade rather than enhance safety. Appropriate changes to these test requirements, with supporting justification, shall be submitted for staff approval.

EVALUATION

The licensee responded to these requirements with a submittal dated November 5, 1983². The licensee stated in this submittal that there were no post-maintenance testing requirements in Technical Specifications for either reactor trip system or other safety-related components which degraded safety.

CONCLUSION

Based on the licensee's statement that no post-maintenance test requirements were found in Technical Specifications that degraded safety, we find the licensee's responses acceptable for Items 3.1.3 and 3.2.3 of Generic Letter 83-28.

REFERENCES

1. NRC Letter, D. G. Eisenhower 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. Commonwealth Edison letter to NRC, P. L. Barnes to H. R. Denton, Director, Office of Nuclear Reactor Regulation, NRC, "Dresden Station Units 2 and 3, Quad Cities Station Units 1 and 2, Zion Station Units 1 and 2, LaSalle County Station Units 1 and 2, Byron Station Units 1 and 2, Braidwood Station Units 1 and 2, Response to Generic Letter No. 83-28, NRC Docket Nos. 50-237/249, 50-254/265, 50-295/304, 50-374/375, 50-454/455, and 50-456/457," November 5, 1983.

CONFORMANCE TO GENERIC LETTER 83-28
ITEMS 3.1.3 AND 3.2.3
BRAIDWOOD, UNIT NOS. 1 AND 2, BYRON STATION,
UNIT NOS. 1 AND 2, CALLAWAY PLANT, UNIT NO. 1,
INDIAN POINT, UNIT NO. 3, TROJAN NUCLEAR PLANT,
WOLF CREEK GENERATING STATION

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ABSTRACT

This EG&G Idaho, Inc. report provides a review of the submittals for several nuclear plants for conformance to Generic Letter 83-28, Items 3.1.3 and 3.2.3. The specific plants selected were reviewed as a group because of similarity in type and applicability of the review items. The group includes the following plants:

<u>Plant</u>	<u>Docket Number</u>	<u>TAC Numbers</u>
Braidwood 1	50-456	--
Braidwood 2	50-457	--
Byron 1	50-454	56279,56281
Byron 2	50-455	--
Callaway 1	50-483	55193,55203
Indian Point 3	50-286	53009,53847
Trojan	50-344	53052,53891
Wolf Creek	50-482	57383,57381

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 conducted for the U.S. Nuclear Regulatory commission, Office of Nuclear Reactor Regulation, Division of System Integration by EG&G Idaho, Inc., NRC Licensing Support Section.

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CONFORMANCE TO GENERIC LETTER 83-28

ITEMS 3.1.3 AND 3.2.3

BRAIDWOOD, UNIT NOS. 1 AND 2, BYRON STATION,
UNIT NOS. 1 AND 2, CALLAWAY PLANT, UNIT NO. 1,
INDIAN POINT, UNIT NO. 3, TROJAN NUCLEAR PLANT,

1. INTRODUCTION

On July 8, 1983, Generic Letter No. 83-28¹ was issued by D. G. Eisenhower, Director of the Division of Licensing, 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".²

This report documents the EG&G Idaho, Inc. review of the submittals from Braidwood, Unit Nos. 1 and 2, Byron Station, Unit Nos. 1, and 2, Callaway Plant, Unit No. 1, Indian Point, Unit No. 3, Trojan Nuclear Plant and Wolf Creek Generating Station, for conformance to items 3.1.3 and 3.2.3 of Generic Letter 83-28. The submittals from the licensee utilized in these evaluations are referenced in Section 11 of this report.

These review results are applicable to the group of nuclear plants previously identified because of their similarity. These plants are similar in the following respects.

1. They are operating Westinghouse-PWR reactors
2. They utilize the Dry Containment System
3. They utilize two Class 1E Power System Trains
4. They are four loop reactors.
5. They use the Westinghouse Solid State Protection System

An item of concern identified for any one of these plants is assumed to be potentially significant for all of the plants in the group.

2. REVIEW REQUIREMENTS

Item 3.1.3 (Post-Maintenance Testing of Reactor Trip System Components) requires licensees and applicants to identify, if applicable, any post-maintenance test requirements for the Reactor Trip System (RTS) in existing technical specifications which can be demonstrated to degrade rather than enhance safety. Item 3.2.3 extends this same requirement to include all other safety-related components. Any proposed technical specification changes resulting from this action shall receive a pre-implementation review by NRC. .

3. GROUP REVIEW RESULTS

The relevant submittals from each of the named reactor plants were reviewed to determine compliance with Items 3.1.3 and 3.2.3 of the Generic Letter. First, the submittals from each plant were reviewed to determine that these two items were specifically addressed. Second, the submittals were checked to determine if any post-maintenance test items specified by the technical specifications were identified that were suspected to degrade rather than enhance safety. Last, the submittals were reviewed for evidence of special conditions or other significant information relating to the two items of concern. The results of this review are summarized for each plant in Table 1.

The responses from Braidwood, Unit Nos. 1 and 2, Byron Station Unit Nos. 1 and 2 and Indian Point, Unit No. 3 indicated that there had been no items identified from the licensees' review of the technical specifications relating to post-maintenance testing that could be demonstrated to degrade rather than enhance safety. However, the licensees gave no insight on the depth of review conducted on these two items.

The licensee's response for Callaway Plant Unit No. 1, Trojan Nuclear Plant, and Wolf Creek Generating Station did not address the concerns about post-maintenance test requirements raised by Items 3.1.3 and 3.2.3.

TABLE 1.

Plants	Were Items 3.1.3 and 3.2.3 Addressed in the Submittal	Licensee Findings	Responses Acceptable	Comments
Braidwood 1 and 2	Yes	No tech. spec. items identified that degrade safety	Yes	--
Byron 1 and 2	Yes	No tech. spec. items identified that degrade safety	yes	--
Callaway 1	Yes	--	No	Concerns of Items 3.1.3 and 3.2.3 were not addressed.
Indian Point 3	Yes	No tech. spec. items identified that degrade safety	Yes	--
Trojan	Yes	--	No	Concerns of Items 3.1.3 and 3.2.3 were not addressed.
Wolf Creek	Yes	--	No	Concerns of Items 3.1.3 and 3.2.3 were not addressed.

4. REVIEW RESULTS FOR BRAIDWOOD, UNIT NOS. 1 AND 2

4.1 Evaluation

Commonwealth Edison, the licensee for Braidwood, Unit Nos. 1 and 2, provided responses to Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on November 5, 1983.³ At the time of the submittal the Braidwood Technical Specifications were in the developmental phase. However, the licensee stated in the submittal that they were not aware of any requirements for testing reactor trip systems components or safety-related components in their proposed Technical Specification which would degrade safety.

4.2 Conclusion

The licensee's statement meets the requirements of Items 3.1.3 and 3.2.3 of Generic Letter 83-28 and is acceptable.

5. REVIEW RESULTS FOR BRAIDWOOD, UNIT NOS. 1 AND 2

5.1 Evaluation

Commonwealth Edison, the licensee for Byron, Unit Nos. 1 and 2, provided responses to Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on November 5, 1983.³ Within the responses, the licensee states that a review in conjunction with the NRC of current revision of the standard technical specifications for Unit Nos. 1 and 2 has not identified any requirements that will degrade rather than enhance safety.

5.2 Conclusion

Based on the licensee's statement that they have reviewed their technical specification requirements to identify any post maintenance testing which could be demonstrated to degrade rather than enhance safety and found none that degraded safety, we find the licensee's responses acceptable.

6. REVIEW RESULTS FOR CALLAWAY PLANT, UNIT NOS. 1 AND 2

6.1 Evaluation

Union Electric Company, the licensee for Callaway Plant, Unit Nos. 1 and 2, provided responses to Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on November 18, 1983.⁴ Within the response, the licensee states that an NRC Task Force on Plant Technical Specification Surveillance Requirements has been recently chartered and represents the appropriate forum for addressing these sections. The SNUPPS utilities are also actively involved in a Technical Specification Optimization Program (TOP). This involvement and interface with the NRC task force will ensure that changes to the Technical Specifications are adequately addressed. This response does not address the concerns about post-maintenance test requirements raised by these two items.

6.2 Conclusion

The licensee shall review the post-maintenance testing requirements contained in the technical specifications for the reactor trip system and other safety related components and determine whether any such current post-maintenance requirements may degrade rather than enhance safety. If any such current post-maintenance testing requirements are found the licensee shall identify them and propose corrective Technical Specification changes. If no requirements are found to exist, then a statement to that effect should be submitted.

7. REVIEW RESULTS FOR INDIAN POINT, UNIT NO. 3

7.1 Evaluation

New York Power Authority, the licensee for Indian Point, Unit No. 3, provided responses to Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on May 17, 1985.⁵ For Item 3.1.3, the licensee states that to date no post-maintenance testing which would degrade safety has been identified. Currently, the Authority is reviewing, for plant specific applicability, the NRC SER on WCAP-10271, Supplement 1, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation Systems."

For Item 3.2.3, the licensee states that the Authority found none and will continue to review and propose changes related to post-maintenance testing requirements when and if identified.

7.2 Conclusion

Based on results of review of test and maintenance programs which did not identify any post-maintenance testing that may degrade rather than enhance safety, we find the licensee's responses acceptable.

8. REVIEW RESULTS FOR TROJAN NUCLEAR PLANT

8.1 Evaluation

Portland General Electric (PGE) Company, the licensee for the Trojan Nuclear Plant, provided responses for Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on November 4, 1983.⁶ Within the responses, the licensee states that no changes to Technical Specifications are being proposed at this time. Portland General Electric (PGE) Company is participating in the Westinghouse Owners Group (WOG) program for reevaluation of Technical Specifications using the methodology in WCAP-10271, which was submitted to the NRC on February 3, 1983 and October 4, 1983. PGE may request changes to the Trojan Technical Specifications based on the results of this program. PGE supports the review of Technical Specifications initiated by the NRC Task Force. The licensee states that there may be Technical Specification surveillance requirements which degrade rather than enhance safety, they have not quantified such effects at this time. This response does not address the concerns about post-maintenance test requirements raised by these two items.

8.2 Conclusion

The licensee shall review the post-maintenance testing requirements contained in the technical specifications for the reactor trip system and other safety related components and determine whether any such current post-maintenance requirements may degrade rather than enhance safety. If any such current post-maintenance testing requirements are found, the licensee shall identify them and propose corrective Technical Specification changes. If no requirements are found to exist, then a statement to that effect should be submitted.

9. REVIEW RESULTS FOR WOLF CREEK GENERATING STATION

9.1 Evaluation

Kansas Gas and Electric Company (KG&E), the licensee for Wolf Creek Generating Station, provided responses for Items 3.1.3 and 3.2.3 of Generic Letter 83-28 on November 15, 1983.⁷ Within the responses, the licensee states that a NRC Task Force on Plant Technical Specifications Surveillance Requirements has been recently chartered and represents the appropriate forum for addressing this section. KG&E is also actively involved in the Westinghouse Owners' Group (WOG) Technical Specification Optimization Program (TCP). This involvement and interface with the NRC Task Force, as exemplified in Letter OG-103 dated 9/16/83 (WOG-NRC Task Force on Plant Technical Specifications), will ensure that changes to the Technical Specifications are adequately addressed. This response does not address the concerns about post-maintenance test requirements raised by these two items.

9.2 Conclusion

The licensee shall review the post-maintenance testing requirements contained in the technical specifications for the reactor trip system and other safety related components and determine whether any such current post-maintenance requirements may degrade rather than enhance safety. If any such current post-maintenance testing requirements are found, the licensee shall identify them and propose corrective Technical Specification changes. If no requirements are found to exist, then a statement to that effect should be submitted.

10. GROUP CONCLUSION

The licensee responses for Braidwood, Unit Nos., 1 and 2, Byron Station, Units No. 1 and 2 and Indian Point, Unit No. 3 were found acceptable by the staff. However, the staff found the licensee responses for Callaway Plant, Unit No. 1, Trojan Nuclear Plant, and Wolf Creek Generating Station unacceptable.

11. REFERENCES

1. NRC Letter, D. G. Eisenhower 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. Commonwealth Edison letter to NRC, P. L. Barnes to H. R. Denton, Director, Office of Nuclear Reactor Regulation, NRC, "Dresden Station Units 2 and 3, Quad Cities Station Units 1 and 2, Zion Station Units 1 and 2, LaSalle County Station Units 1 and 2, Byron Station Units 1 and 2, Response to Generic Letter No. 83-28, NRC Docket Nos. 50-237/249, 50-254/265, 50-295/304, 50-374/374, 50-454/455, and 50-456/457," November 5, 1983.
4. Union Electric Company letter to NRC, D. F. Schnell to H. R. Denton, Director of Nuclear Reactor Regulation, NRC, "Docket No. 50-483, Union Electric Company, Callaway Plant Unit 1, Response to Generic Letter 83-28," November 18, 1983.
5. New York Power Authority letter to NRC, J. C. Brons to S. A. Varga, Chief, Operating Reactor Branch No. 1, Division of Licensing, NRC, "Indian Point 3 Nuclear Power Plant, Docket No. 50-286, Additional Information Regarding Generic Letter 83-28, Required Actions Based on Generic Implications of the Salem ATWS Events," May 17, 1985, IPN-85-26.
6. Portland General Electric letter to NRC, B. D. Withers to D. G. Eisenhower, Director, Division of Licensing, NRC, "Required actions Based on Generic Implications of Salem ATWS Events (Generic Letter 83-28)," November 4, 1983.
7. Kansas Gas and Electric Company letter to NRC, G. L. Koester to H. R. Denton, Director, Office of Nuclear Reactor Regulation, NRC, "Response to Generic Letter 83-28," November 15, 1983.