

CATEGORY 1

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SUBJECT: Forwards response to NRC GL 96-01, "Testing of Safety-Related Logic," dtd 960110.

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April 19, 1996

10CFR50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
NRC Generic Letter 96-01 Response

- References:
- 1) NRC Generic Letter No. 96-01, "Testing of Safety-Related Logic Circuits," dated January 10, 1996.
 - 2) Letter from B. A. Boger (NRC) to A. Marion (NEI) dated February 14, 1996.

Nuclear Regulatory Commission (NRC) Generic Letter 96-01 identifies a significant number of instances of industry problems with logic testing of safety-related circuits. The Generic Letter further requests that licensees take several actions and submit information on the actions taken and planned to the NRC.

The attachment to this letter provides Wisconsin Public Service Corporation's response to the Generic Letter Required Response (1) in accordance with the extension granted in Reference 2. As required by the Generic Letter, this response is being submitted under oath or affirmation.

If you require any additional information or have questions concerning this response, please contact a member of my staff.

Sincerely,

C. R. Steinhardt
Senior Vice President-Nuclear Power

RPP 9604230140 960419
Attach. PDR ADOCK 05000305
P FDR

cc - US NRC, Region III
US NRC Senior Resident Inspector

Subscribed and Sworn to
Before Me This 19th Day
of April 1996

Notary Public, State of Wisconsin

My Commission Expires:
June 13, 1999

ADOCK 11

Attachment 1

Letter from C.R. Steinhardt (WPSC)

To

Document Control Desk (NRC)

Dated

April 19, 1996

Response to NRC Generic Letter 96-01

Required Response (1) Within 60 days of the date of this generic letter, a written response indicating whether or not the addressee will implement the actions requested above. If the addressee intends to implement the requested actions, submit a schedule for completing implementation. If an addressee chooses not to take the requested actions, submit a description of any proposed alternative course of action, the schedule for completing the alternative course of action (if applicable), and the safety basis for determining the acceptability of the planned alternative course of action.

Requested Action (1): Compare electrical schematic drawings and logic diagrams for the reactor protection system, EDG load shedding and sequencing, and actuation logic for the engineered safety features systems against plant surveillance test procedures to ensure that all portions of the logic circuitry, including parallel logic, interlocks, bypasses and inhibit circuits, are adequately covered in the surveillance procedures to fulfill the TS requirements. This review should also include relay contacts, control switches, and other relevant electrical components within these systems utilized in the logic circuits performing a safety function.

WPSC Response: Reference 3 summarizes additional guidance provided by the NRC at the March 19, 1996 NEI meeting on the required actions of the Generic Letter. Wisconsin Public Service will perform the review requested by action (1) with the following clarifications:

- 1) The review will focus on the testing requirements as specified in the plant technical specifications (see response to questions 1,4,&7 of enclosure 2 of Reference 3) and rely on the Kewaunee USAR identification of ESF Systems.
- 2) The review will be limited to one train of safety-related logic circuitry and any differences between the two trains in accordance with the guidance provided in the response to question 11 of enclosure 2 to Reference 3.
- 3) The review will not encompass specific verification that wiring connections are intact unless removed or jumpered for testing. (See response to questions 8,9,&10 of enclosure 3 to Reference 3).
- 4) The review will not specifically encompass equipment status lights and indication instrumentation (annunciators, computer points,etc.) if their failure would not adversely effect a safety function. (See response to question 15 of enclosure 3 of Reference 3.)

- 5) The Kewaunee Nuclear Power Plant began construction in the late 1960s and received its operating license in 1973. As such, the design does not include the same capabilities for testing as the more recently licensed plants. The limitations in the testing capability were recognized and acknowledged during original plant licensing and during development of the plant technical specifications. The original plant NRC safety evaluation report (Reference 4) reviewed and accepted the design and periodic testing practices for the ESF logic circuits. An excerpt from that evaluation is repeated below:

...test capability of the ESF logic circuitry beyond the master relays with the plant at power is limited. Testing of the logic master relay must be accomplished by blocking the slave relays which normally actuate the engineered safety features. Periodic testing of the slave relays and actuated relays will be limited to checking relay coil resistance and actuated device circuitry for continuity. This design does not meet the recently approved safety guide criterion on the subject. However, we consider that backfitting the system would not provide substantial additional protection to the public health and safety and, hence, is not warranted. The applicant's capability to test, as described, is consistent with designs recently approved for operating licenses. We have concluded that the testing capability provided for the Kewaunee plant is acceptable.

WPSC has concluded that this testing meets the technical specification requirements, and, in response to question 23 of enclosure 3 to reference 3, the NRC concluded that previously accepted testing practices would continue to remain acceptable.

To maintain the schedule requested, WPSC requests prompt notification, if any of these positions need additional clarification.

Requested Action (2): Modify the surveillance procedures as necessary for complete testing to comply with the technical specifications. Additionally, the licensee may request an amendment to the technical specifications if relief from certain testing requirements can be justified.

WPSC Response: Wisconsin Public Service Corporation will take the necessary actions to ensure continued compliance with the operating license and technical specifications. This may require modifying surveillance procedures or an amendment to the technical specifications. As stated in Clarification 1) above, the review will focus on the Technical Specification required testing. If during the review, WPSC identifies potential surveillance changes in logic circuit portions beyond the Technical Specification tested logic, such changes will be considered discretionary and not part of the GL 96-01's required actions.

Schedule: Currently the Kewaunee Plant has scheduled refueling outages for the Fall of 1996 and the Spring of 1998. WPSC plans to complete the above described actions prior to startup from the Spring 1998 refueling outage.

- References:**
- 1) NRC Generic Letter No. 96-01, "Testing of Safety-Related Logic Circuits," dated January 10, 1996.
 - 2) Letter from B. A. Boger (NRC) to A. Marion (NEI) dated February 14, 1996.
 - 3) Letter from B. A. Boger (NRC) to A. Marion (NEI) dated March 26, 1996.
 - 4) Safety Evaluation of the Kewaunee Nuclear Power Plant, Docket No. 50-305, dated July 24, 1972.