

Nebraska Public Power District

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G. R. HORN Senior Vice-President, Energy Supply (402) 563-5518

> NLS960058 April 18, 1996

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001

Gentlemen:

Subject: Response to Generic Letter 96-01 Cooper Nuclear Station, NRC Docket 50-298, DPR-46

References: 1.

- US NRC Generic Letter 96-01, dated January 10, 1996: Testing of Safety-related Logic Circuits.
- 2. Letter from G.R. Horn of Nebraska Public Power District to L.J. Callan of US NRC, NLS 940001, dated July 28, 1994: Response to Confirmatory Action Letter.
- 3. Letter from G.R. Horn of Nebraska Public Power District to US NRC, NLS 950069, dated March 16, 1995: Resubmittal of a Reply to a Notice of Violation and Proposed Imposition of Civil Penalties.
- 4. Licensee Event Report (LER) 94-009, supplement 1, dated January 26, 1995.

NRC Generic Letter 96-01 (Reference 1) requested that all holders of operating licenses for Nuclear Power reactors consider certain actions related to testing of safety - related logic circuits. The specific actions requested by Generic Letter 96-01 are listed below with the corresponding District response.

## NRC REQUEST

PDR

 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 the parallel logic, interlocks, bypasses and inhibit circuits, are adequately covered in the surveillance procedures to fulfill the TS requirement. 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.
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> 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.

It is requested that the completion of these actions be accomplished prior to startup from the first refueling outage commencing one year after the issuance of this generic letter.

NOTE: Some licensees may have already performed the requested reviews and taken appropriate corrective actions. These licensees do not need to perform any additional review unless modifications have been made to the logic circuits for these systems. In these cases the modifications should be reviewed. Licensees are reminded that following modifications to safety-related logic circuits, full functional testing of the modification should be conducted. Licensees should not rely on routine surveillance testing to confirm proper performance of logic circuits following modifications.

## DISTRICT RESPONSE

The Nebraska Public Power District (District) has already completed a review of the adequacy of the Logic System Functional Tests (LSFTs) at Cooper Nuclear Station (CNS) prior to the plant startup from 1994 forced outage. It is referenced in the District's July 28, 1994, and March 16, 1995, letters to the NRC (References 2 and 3), and LER 94-009, Supp. 1 (Reference 4). The LSFT review was performed as part of the District's corrective action plan to prevent recurrence of deficiencies found in surveillance procedures. The objective of the review was to verify that surveillance requirements contained in the CNS Technical Specifications were adequately translated into the appropriate surveillance procedures. The District used the following process to meet this objective.

Each Technical Specification surveillance line item was compared with its analogous implementing procedure to determine if the requirement was met. The surveillance procedures were reviewed to determine if they adequately tested all portions of the logic circuitry, including the parallel logic, interlocks, bypasses, and inhibit circuits, to fulfill the Technical Specifications requirement. This effort included identification of the LSFT requirements for the Reactor Protection System, Diesel Generator Load Shedding and Sequencing, and Engineered Safety Features Systems through review of various source documents such as, elementary diagrams, flow diagrams, Updated Safety Analysis Report (USAR), and Design Criteria Documents, as applicable.

Since testing of a logic system involves, in many cases, multiple surveillance procedures, a review of individual procedures was performed to confirm overlap with other procedures for a complete LSFT. The surveillance test scope and overlap points were documented by highlighting the logic tested by each procedure on a set of CNS electrical schematic drawings. Where testing was not performed, either appropriate procedures were revised or special test procedures written, and the logic systems were tested. Following this effort,

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surveillance procedures were revised as necessary to incorporate testing performed in those special test procedures.

Also, plant modifications performed at CNS since the above mentioned LSFT review have been evaluated to ensure that the effect of these modifications on the performance of LSFT has been appropriately incorporated into surveillance procedures.

The existing surveillance procedures at CNS are considered adequate in ensuring complete LSFTs as required by the Technical Specifications. They also provide reasonable assurance that the logic circuits of required safety systems will perform their intended design function when called upon. Therefore, the District concludes that CNS is in full compliance with the Generic Letter requirements, and no further actions are planned.

Please contact me if you have any questions concerning this issue, or if you require any additional information.

Sincerely,

G.R. Horn

Senior Vice President - Energy Supply

cc: Regional Administrator USNRC - Region IV

> Senior Project Manager USNRC - NRR Project Directorate IV -1

Senior Resident Inspector USNRC - Cooper Nuclear Station

NPG Distribution

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STATE OF NEBRASKA ) )ss PLATTE COUNTY )

G.R. Horn, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this response on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

on

Subscribed in my presence and sworn to before me this

18th day of April , 1996.

NOTARY PUBLIC

GENERAL NOTARY-State of Hebraska RITA L. PFLASTERER My Connol. Eng. Doc. 33, 1999

## Correspondence No: NLS960058

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The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
None	

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