



Nebraska Public Power District

COOPER NUCLEAR STATION
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NLS970010
January 20, 1997

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Director, Office of Enforcement
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Reply to a Notice of Violation;
NRC Inspection Report No. 50-298/96-30;
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference: Letter from Mr. J. E. Dyer (USNRC) to Mr. G. R. Horn (NPPD), dated December 20, 1996, NRC Inspection Report 50-298/96-30 and Notice of Violation.

This letter, including Attachment 1, constitutes Nebraska Public Power District's (the District) reply to the referenced Notice of Violation in accordance with 10CFR2.201. Inspection Report 50-298/96-30 documented the results of an NRC inspection conducted between November 4-8, 1996, and December 4, 1996, which focused on the regulatory and safety significance of a self-identified design flaw in the Reactor Core Isolation Cooling System and the practice of performing full core offloads during refueling operations at Cooper Nuclear Station (CNS).

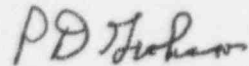
The District admits to Violation A and feels that adequate documentation exists on the docket. The District also admits to Violations B and C, although the underlying issue of Violation B would have been better characterized as a failure to properly update the CNS Final Safety Analysis Report (FSAR) pursuant to the requirements of 10CFR50.71(e)(3). From this perspective, the District requests that the information contained in this submittal be considered as responsive to the concerns raised in the remaining aspects of URI 298/95-14-01. All corrective actions have been completed which were necessary to return CNS to full compliance with 10CFR50.59 and 10CFR50 Appendix B, Criterion III with regard to these two violations.

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Should you have any questions concerning this matter, please contact my office.

Sincerely,

A handwritten signature in dark ink, appearing to read "PD Graham".

P. D. Graham

Vice President-Nuclear Energy

/wrv

Attachment

cc: Regional Administrator
USNRC - Region IV

Senior Project Manager
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector
USNRC - Cooper Nuclear Station

NPG Distribution

REPLY TO DECEMBER 20, 1996, NOTICE OF VIOLATION
COOPER NUCLEAR STATION
NRC DOCKET NO. 50-298, LICENSE DPR-46

During NRC inspection activities conducted from November 4-8, 1996, and December 4, 1996 three violations of NRC requirements were identified. Violation A did not require a response per the instructions in the referenced inspection report. Violations B and C are set forth below along with the District's reply:

VIOLATION B

"10 CFR 50.59(a)(1) states, in part, that a licensee may make changes in the facility as described in the safety analysis report without prior Commission Approval unless the change involves a change in the Technical Specifications incorporate in the license or an unreviewed safety question. 10 CFR 50.59(b)(1) states, in part, that the licensee shall maintain records of changes in the facility, to the extent that these changes constitute changes in the facility as described in the safety analysis, and that these records must include a written safety evaluation which provides the basis for the determination that the change did not involve an unreviewed safety question.

"On October 20, 1995, the licensee's FSAR, Section 8.5.6, stated, in part, that 'the residual heat removal (RHR) system can be intertied with the Fuel Pool cooling system if required. This capability increases the spent fuel pool cooling capacity in the event that such additional capacity is necessitated by removal from the core of an unusually large number of fuel elements. The RHR system - fuel pool cooling system intertie is sized to remove an emergency heat load ... from the fuel pool which corresponds to full core off-loading plus the batch of spent fuel discharged at the previous refueling outage.'

"In the NRC's safety evaluation supporting License Amendment 52 dated September 29, 1978, it was indicated in Section 2.2 that the RHR cooling would be available when performing full core offloads.

"Contrary to the above, on October 20, 1995, the licensee changed the facility as described in the safety analysis report in that the facility was not operated as described in the FSAR and a written safety evaluation of the change from the FSAR had not been performed to determine whether this change involved an unreviewed safety question. Specifically, the licensee was in the process of performing a full core offload, and the RHR system was not available to assist the fuel pool cooling system in removing what the FSAR characterized as an emergency offload."

Admission or Denial to Violation

The District admits the violation.

Reasons for Violation

The Inspection Report discusses the chain of events during Reload 16 (RE-16). The fundamental chronology is as follows:

10/14/95	Reactor shutdown achieved.
10/19/95	Full core offload commences.
10/20/95	Core offload discontinued after 160 bundles (i.e., the "normal" heat load) were transferred.
10/22/95	Station Operations Review Committee approves the 10CFR50.59 Safety Evaluation associated with the Updated Safety Analysis Report (USAR) text changes for the Fuel Pooling Cooling and RHR Systems. The revised text clarified what the "normal" and "worst case" heat loads were at CNS, and specified that the RHR Fuel Pool Cooling Assist lineup is placed in service to prevent the Spent Fuel Pool temperature from exceeding 150°F.
10/23/95	Based on the clarified USAR wording approved for incorporation in that USAR update cycle, full core offload recommenced.
10/27/95	Full core offload completed.

This violation was caused by the failure to accurately and unambiguously document the Current Licensing Basis for the Spent Fuel Pool Cooling System in the CNS USAR as provided for in 10CFR50.71(e). Specifically, the results of analyses submitted pursuant to Amendment 52 were not properly reflected during implementation of the FSAR update rule in 1982. While the USAR wording (as periodically updated) reiterated the assumptions and results of the rerack amendment analyses, it was ambiguous as to when RHR Fuel Pool Cooling Assist should be available when a greater decay heat removal capability existed than credited by the bounding analyses. Accordingly, the requirements of 10CFR50.59 had not been carefully considered with respect to defueling practices.

Corrective Steps Taken and the Results Achieved

A 10CFR50.59 Safety Evaluation was expedited which supported a change to the wording in the USAR. This USAR change more clearly articulated the Current Licensing Basis for the Fuel Pool Cooling System and the conditions under which RHR Fuel Pool Cooling Assist must be available. This USAR change was transmitted to the NRC as part of the 1996 USAR update.

Corrective Steps That Will Be Taken to Avoid Further Violations

No further corrective actions are needed to preclude future violations of 10CFR50.59 with regard to Spent Fuel Pool cooling issues. However, the District will be communicating its plans for ensuring the accuracy of USAR information in response to the NRC's Request For Information of October 9, 1996, pursuant to 10CFR50.54(f).

Date When Full Compliance Will Be Achieved

The District is in full compliance with the requirements of 10CFR50.59 with respect to this Violation.

VIOLATION C

"Criterion III of Appendix B to 10 CFR Part 50 requires that regulatory requirements and the design basis, as defined in 10 CFR 50.2 and as specified in the license application, for those structures systems and components to which the appendix applies are correctly translated into specifications, drawings, procedures, and instructions.

"In the safety evaluation report which accompanied Amendment 52 to the facility operating license, the NRC staff acknowledged that the licensee's spent fuel pool and cooling systems were capable of handling the heat load associated with a full core discharge. However, this acknowledgment was based on certain design assumptions. In the Safety Evaluation Report, the staff stated that the maximum fuel pool heatload was associated with an offload that would occur 13 days after shutdown.

"Contrary to the above, the design basis assumption that the maximum heat load was associated with full core discharge which was completed in 13 days was not translated into procedures. Procedure 2.3.2, 'Fuel Pool Cooling and Demineralizer System,' contained no administrative controls to ensure that fuel was not loaded at a rate that would exceed the 13-day assumption. In October 1995, the licensee did exceed this offload rate."

Admission or Denial to Violation

The District admits the violation.

Reasons for Violation

Violation B discusses the sequence of events during the beginning of RE-16. Based on the District's records, the 13-day offload criteria of Amendment 52 (time from reactor shutdown until completion of last bundle transfer) was not exceeded as indicated in the text of the Violation and on page 7 of Enclosure 2 of the Inspection Report. Nevertheless, the District acknowledges that plant procedures did not specifically implement the analytical limitations associated with decay heat removal as submitted in Amendment 52.

This Violation was caused by the failure to clearly document the acceptability of the Station's operating practices for Spent Fuel Pool cooling with respect to the limitations of the 13-day defueling period. At CNS, the Spent Fuel Pool heat balance is monitored by a temperature recorder in the Control Room. Spent Fuel Pool temperature is logged by the Control Room staff every 6 hours. If temperature would reach 125°F, Abnormal Procedure 2.4.8.6 would be entered which provides guidance for restoring or augmenting the existing Spent Fuel Pool cooling capability. Documentation did not exist that clearly justified this approach relative to the bounding analytical values of the Amendment 52 correspondence.

Corrective Steps Taken and the Results Achieved

A 10CFR50.59 Safety Evaluation was performed which supported a change to the wording in the USAR. This USAR change reconciled the deterministically restrictive language of the Amendment 52 submittals with the actual licensing basis of the Fuel Pool Cooling System. This USAR change was transmitted to the NRC as part of the 1996 USAR update. Procedure 2.2.32 was revised to incorporate the operational controls needed to implement the revised USAR wording.

Corrective Steps That Will Be Taken to Avoid Further Violations

No further actions are required to prevent recurrence of this Violation.

Date When Full Compliance Will Be Achieved

The District is in full compliance with the requirements of 10CFR50 Appendix B, Criterion III with respect to this violation.

Correspondence No: NLS970010

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
The District will be communicating its plans for ensuring the accuracy of USAR information in response to the NRC's Request For Information of October 9, 1996, pursuant to 10CFR50.54(f).	2/11/97