



Nebraska Public Power District
Nebraska's Energy Leader

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NLS2001042
June 21, 2001

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

Gentlemen:

Subject: Amendment 185 Clarification
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

- References:**
1. NRC letter, "Cooper Nuclear Station - Issuance of Amendment on Crediting Service Water for Reactor Equipment Cooling during a Loss-of-Coolant Accident Event (TAC No. MA5751)" from Thomas W. Alexion to Mr. J. H. Swailes (NPPD), dated March 13, 2001.
 2. Telephone Conversation, "CNS Amendment 185, SW Backup to REC - SE Page 4 Second Paragraph," between Ed McCutchen (NPPD), Eddie Grant (NPPD), Jim Tatum (NRC) and Tom Alexion (NRC) of March 28, 2001.
 3. Letter NLS2000020, "Proposed License Amendment Service Water Backup to the Reactor Equipment Cooling Post LOCA Response to Request for Additional Information," from John H. Swailes (NPPD) to USNRC, dated November 14, 2000.

The Nuclear Regulatory Commission (NRC) issued to Nebraska Public Power District (District) Amendment 185 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station (CNS) (Ref. 1). The amendment authorizes revision of the Updated Safety Analysis Report (USAR) to allow the use of service water to directly supply cooling water to the reactor equipment cooling system during a loss-of-cooling accident event. During review of the NRC Safety Evaluation (SE) associated with this Amendment, the District identified an issue that required clarification.

In the SE, the last paragraph in Section 3 (page 4), the NRC discusses the evolution of communications regarding passive piping failures during a Safe Shutdown Earthquake (SSE) or Design Basis Accident (DBA). While the clarification regarding non-seismic piping failures accurately reflects the consensus reached between NPPD and the NRC Staff, the concluding statement in this Section regarding cracks in the seismic Category 1 piping requires clarification. The SE statement referenced is:

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“The staff agrees that a complete failure of seismic Category 1 piping is not assumed to occur during an SSE; however, a crack would be assumed to occur concurrent with an SSE in seismic Category 1 piping.”

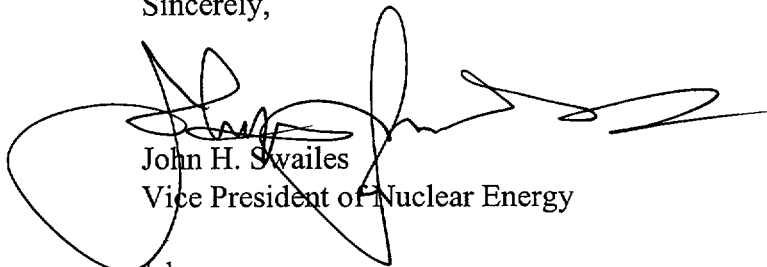
CNS does not assume seismic Category 1 piping fails nor is it assumed to crack concurrent with an SSE. Members of the CNS Licensing Staff discussed this with the NRC technical staff contributors to the SE and CNS Project Manager in a March 28, 2001 teleconference (Reference 2). CNS stated that the reference that “a crack would be assumed to occur concurrent with an SSE in seismic Category 1 piping” does not apply to CNS, and CNS understands the NRC did not intend to impose or imply an additional licensee commitment or a revision to the CNS license basis in this regard.

In an effort to clarify the documentation related to the issue, the NPPD response to the request for additional information (RAI) (Ref. 3, Question #2 response) that was cited in the last paragraph in Section 3 of the SE (Ref. 1), is revised and re-submitted in Attachment 1 to reflect the clarification outlined.

In conclusion, the District understands that the last paragraph in Section 3 (page 4) of the SE was intended as a comment of a general nature rather than a condition upon which approval of the CNS license amendment request (LAR) was based. Furthermore it is our understanding that the concluding remark was not intended to impose or imply an additional licensee commitment or a revision to the CNS license basis. CNS continues to adhere to the sections of the CNS USAR which set forth the licensing basis for CNS pipe stress analysis. These sections are Section XII (2.3.5.2.2 Piping), Appendix A (3.1 Piping Design), and Appendix C (3.3.3 Piping).

Should you have any questions concerning this matter, please contact Mr. David Kunsemiller at (402) 825-5236.

Sincerely,

A handwritten signature in black ink, appearing to read 'John H. Swailes', is written over a large, stylized circular scribble.

John H. Swailes
Vice President of Nuclear Energy

/elm
Attachment

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cc: Regional Administrator w/ attachment
USNRC - Region IV

Senior Project Manager w/ attachment
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/ attachment
USNRC

NPG Distribution w/o attachment

Records w/ attachments

Corrected Response to Question 2
Originally Submitted in District Letter NLS2000020 dated November 14, 2000

2. **The figure (COR002-19) provided with the NOED request clearly indicates that the DIV I pump discharge flow path returns to the DIV II pump suction. This is true for the DIV II flow path also. Why is this acceptable?**

In the early 1990's, it was discovered that the Division I SW loop supplied the Division II REC heat exchanger and vice versa. DC 93-057 was implemented and made many changes/upgrades to the REC and SW systems, one of which was to swap the labeling of the REC heat exchangers. This allowed the Division I REC heat exchanger to be supplied from the Division I SW subsystem and the Division II REC heat exchanger to be supplied from the Division II SW subsystem. This also swapped the returns such that the Division I critical loop returns to the Division II pumps and the Division II critical loop returns to the Division I pumps. This led to the requirement that REC-MOV-694MV remain in the open position or the REC system must be declared inoperable. The common surge tank design of the REC requires the Division I and Division II pumps to operate from a common suction. Note: DC 93-057 did not change the method of operation for the REC system (i.e., common suction for the pumps).

This is acceptable since CNS is not designed to withstand a passive failure *of seismic Category 1* piping concurrent with a Safe Shutdown Earthquake (SSE) or Design Basis Accident (DBA) and SW backup is currently credited to support safe shutdown of the plant following a SSE considering a single concurrent failure of an active component in the Class I (seismic) piping system and to support safe shutdown of the plant considering a single passive failure not concurrent with a SSE or DBA (see SER, section 9.3.2).

Per USAR Volume IV, Section X-6.5.3, "Either REC subsystem has sufficient capacity with one pump operating to transfer the critical services design cooling load during postulated transient or accident conditions." With REC-MOV-694MV remaining in the open position, the REC system can provide adequate cooling to both critical loops with one pump running. This is demonstrated each 18 months, in accordance with CNS Technical Specifications, by the performance of surveillance procedures 6.1REC.102, "REC Critical Subsystem Emergency Mode Flow Test (DIV 1)" and, 6.2REC.102, "REC Critical Subsystem Emergency Mode Flow Test (DIV 2)."

These surveillance procedures align each REC pump to both critical loops and verify adequate flow through the individual Emergency Core Cooling System (ECCS) components. This positively verifies adequate flow to the required components with the Division I critical loop returning to the Division II pumps and vice versa.

