Nebraska Public Power District

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NLS950048
February 7, 1995

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Gentlemen:

Subject: Response to Request For Additional Information
Generic Letter 92-01, Revision 1
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference:
1) Letter from James R. Hall (NRC) to G. R. Horn, NPPD, dated January 9, 1995, "Generic Letter (GL) 92-01, Revision 1, Reactor Vessel Structural Integrity"

2) Letter from G. R. Horn (NPPD) to USNRC dated July 1, 1992, "Response to Generic Letter 92-01, Revision 1"

3) Letter from G. R. Horn (NPPD) to USNRC dated July 2, 1993, "Response to Request for Additional Information, Generic Letter 92-01, Revision 1"

4) Letter from G. R. Horn (NPPD) to USNRC dated September 16, 1993, "Provision of Additional Information, Generic Letter 92-01, Revision 1"

The Nebraska Public Power District (District) hereby provides the response to the NRC's request for additional information (Reference 1) concerning the District's previous responses to Generic Letter 92-01, Revision 1 (References 2, 3, and 4).

Generic Letter 92-01, Revision 1 requested that the District provide information to demonstrate compliance with NRC regulations concerning reactor vessel fracture toughness requirements and vessel material surveillance programs. In the previous responses (References 2, 3, and 4) associated with this issue, the District provided detailed discussions on the bases for its compliance with these NRC requirements.

The attached discussion supplements the previous submittals and responds to the questions raised in the NRC's letter (Reference 1.)

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If you have any questions or need additional information, please contact me.

Sincerely,

G. R. Horn
Vice-President, Nuclear

/nr
Attachment

cc: Regional Administrator
USNRC Region IV

NRC Resident Inspector
Cooper Nuclear Station

NPG Distribution

ATTACHMENT

1. QUESTION

The initial RT_{NDT} values determined by GE's initial methodology have not been validated and the BWR Owner's Group report, GE-NE-523-109-0893, entitled, "Basis For GE RT_{NDT} Estimation Method," did not resolve the issue. GE is in the process of validating its methodology for resolving the initial RT_{NDT} determination issue and will document the results in a topical report. The BWR Owner's Group is obtaining approval from its members to provide the GE topical report to the NRC staff for its review and approval. We request that you submit within 30 days a commitment to the BWR Owner's Group effort or a schedule for a plant-specific analysis to resolve this issue.

DISTRICT RESPONSE

The District is a participant of the BWR Owner's Group (BWROG) and is committed to the BWROG's current effort to validate the RT_{NDT} values determined by GE's initial methodology.

2. QUESTION

Provide confirmation of the plant-specific applicability of topical report, NEDO-32205, Revision 1, (as specified in Appendix B of that report).

DISTRICT RESPONSE

The District filled out the applicability review forms that were a part of the original version of NEDO-32205 and enclosed them as Appendix A to Reference 3 for CNS. The information provided in these forms demonstrated that the beltline plates and welds at CNS are enveloped by the Topical Report analysis and therefore meet the requirements for demonstrating equivalent margin as allowed by 10CFR50 Appendix G.

Subsequent to the District's submittal of Reference 3, the topical report was re-issued as NEDO-32205-A, Revision 1. To verify that the beltline materials at CNS are enveloped by the analysis in this revised topical report the applicability review forms from revision 1 of NEDO-32205-A have been completed and are included as Appendix A to this letter.

3. QUESTION

Submit a request for approval of the topical report (NEDO-32205-A, Revision 1) as the basis for demonstrating compliance with 10 CFR Part 50, Appendix G, Paragraph IV.A.1.

DISTRICT RESPONSE

The District requests that the NRC approve NEDO-32205-A, Revision 1, "10CFR50 Appendix G Equivalent Margin Analysis For Low Upper Shelf Energy In BWR/2 Through BWR/6 Vessels" as the basis by which the District demonstrates compliance with 10CFR50, Appendix G, Paragraph IV.A.1 for CNS.

4. QUESTION

Verify that the information you have provided for your facility has been accurately entered in the data base

DISTRICT RESPONSE

The District has reviewed the information entered in the data tables in enclosures 1 and 2 of Reference 1 and has found the information to be accurate.

EQUIVALENT MARGIN ANALYSIS
PLANT APPLICABILITY VERIFICATION FORM
FOR COOPER NUCLEAR STATION

BWR/3-6 PLATE

Surveillance Plate USE:

%Cu = 0.21% (5-5)

Capsule Fluence = 2.4×10^{17} (5-5)

Measured % Decrease = 6% (Charpy Curves) (5-9)

R.G. 1.99 Predicted % Decrease = 12.5% (R.G. 1.99, Figure 2) (5-9)

Limiting Beltline Plate USE:

%Cu = 0.21% (7-15)

32 EFPY Fluence = 1.1×10^{18} (7-15)

R.G. 1.99 Predicted % Decrease = 18% (R.G. 1.99, Figure 2) (7-15)

Adjusted % Decrease = N/A (R.G. 1.99, Position 2.2)

18 % ≤ 21%, so vessel plates are bounded by equivalent margin analysis

NOTE: The reference numbers in parentheses are the page numbers from GE Report No. GE-NE-523-159-1292 dated February 1993, "Cooper Nuclear Station Vessel Surveillance Materials Testing and Fracture Toughness Analysis," transmitted to NRC by letter dated February 25, 1993.

EQUIVALENT MARGIN ANALYSIS
PLANT APPLICABILITY VERIFICATION FORM
FOR COOPER NUCLEAR STATION

BWR/2-6 WELD

Surveillance Weld USE:

%Cu = 0.23% (5-5)

Capsule Fluence = 2.4×10^{17} (5-5)

Measured % Decrease = 22% (5-9) (Charpy Curves)

R.G. 1.99 Predicted % Decrease = 15.5% (5-9) (R.G. 1.99, Figure 2)

Limiting Beltline Weld USE:

%Cu = 0.19% (7-15)

32 EFPY Fluence = 1.1×10^{18} (7-15)

R.G. 1.99 Predicted % Decrease = 20% (7-20) (R.G. 1.99, Figure 2)

Adjusted % Decrease = 30.5% (7-15) (R.G. 1.99, Position 2.2)

30.5% $\leq$ 34%, so vessel welds are bounded by equivalent margin analysis

Correspondence No: NLS950048

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 is committed to the BWROG's current effort to validate the RT_{NDT} values determined by GE's initial methodology.	None