



**Nebraska Public Power District**

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10 CFR 50.55a

NLS2006069

August 24, 2006

U. S. Nuclear Regulatory Commission

Attention: Document Control Desk

Washington, DC 20555-0001

**Subject:** Response to U.S. Nuclear Regulatory Commission Request for Additional Information Regarding Relief Request RI-34 for the Fourth 10-Year Inservice Inspection Interval  
Cooper Nuclear Station, Docket No. 50-298, DPR-46

- References:**
1. Letter from Brian Benney, U.S. Nuclear Regulatory Commission, to Randall K. Edington, Nebraska Public Power District, dated August 14, 2006, "Cooper Nuclear Station – Request for Additional Information Re: Risk-Informed Inservice Inspection Relief Request Fourth 10-Year Inservice Inspection Program Relief Request No. RI-34" (TAC NO. MD0283)
  2. Letter from Randall K. Edington, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated February 23, 2006, "10 CFR 50.55a Requests for Fourth Ten-Year Inservice Inspection Interval" (NLS2006015)

The purpose of this letter is to submit the Nebraska Public Power District (NPPD) response to the Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) (Reference 1) regarding the Fourth Ten-Year Inservice Inspection Interval Program Relief Request RI-34 (Reference 2). The attachment to this letter lists the individual questions posed in the NRC RAI and NPPD responses to those questions.

Should you have any questions concerning this matter, please contact Paul Fleming, Licensing Manager, at 402-825-2774.

Sincerely,

Randall K. Edington  
Vice President – Nuclear and  
Chief Nuclear Officer

/wm

Attachment

**COOPER NUCLEAR STATION**

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cc: Regional Administrator w/attachment  
USNRC - Region IV

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

Senior Resident Inspector w/attachment  
USNRC - CNS

NPG Distribution w/o attachment

CNS Records w/attachment

**Attachment**

**Response to NRC Request for Additional Information Regarding Fourth Ten-Year Interval Pump and Valve Inservice Testing Program Relief Request RI-34**

**Nebraska Public Power District  
Cooper Nuclear Station, Docket No. 50-298, DPR-46**

1. *Based on a composite of the tables provided in the enclosure to letter No. NLS2006015, it appears that the fourth interval and third interval risk-informed inservice inspection (RI-ISI) programs are nearly identical. However, there are two aspects of the fourth interval program that the Nuclear Regulatory Commission staff is unable to discern from what was provided:*

- a. NRC Request

*Have there been any changes to the 61 locations selected for nondestructive examination for the fourth interval, relative to the 61 locations selected during the original (third interval relief request) RI-ISI program evaluation (within a given system and risk category)? If so, please identify them and give the rationale for those changes.*

NPPD Response

No changes were made to the welds selected for examination. Changes were made to the population of Class 2 welds to address design changes. The design changes implemented in the Cycle 22 Refueling Outage do not impact the consequence rankings established in the RI-ISI analysis. The designs do not adversely affect the baseline reliability of equipment or systems included in the Cooper Nuclear Station (CNS) Probabilistic Risk Assessment (PRA) model. Relevant industry events have not identified any new failure mechanisms. Therefore, the success criteria of front line mitigation systems remain unchanged, and the existing model results adequately represent both the expected pre-accident and post-accident response of the plant.

- b. NRC Request

*Are there any significant issues or changes to the Cooper probabilistic safety assessment (PSA) model that was used to support your RI-ISI renewal request? If so, please summarize your assessment of the impact of resolving these issues on the RI-ISI application for the fourth ISI interval. If changes have been made to the PSA model, provide a summary of the changes that will have an affect on the RI-ISI application for the fourth ISI interval.*

NPPD Response

No changes have been made to the CNS PRA model that was used to support this request. The RI-ISI consequence evaluation is based on the CNS PRA 96b model. The base case Core Damage Frequency is  $1.3\text{E-}05/\text{year}$ , and the Large Early Release Frequency is  $5.6\text{E-}07/\text{year}$ . An initial industry peer review of the CNS PRA was conducted in July 1997 (published September 1997) with a second industry peer review performed November 2001 (published April 2002). The CNS PRA model is currently being revised to address the comments received from these detailed reviews. This major revision to the PRA will result in a new revision to quantified results and will be reviewed for impact on the RI-ISI Program. Although this on-going work was not used in preparation of the submittal, certain conclusions regarding internal flooding were considered qualitatively and reviewed against the most current plant information for potential insights.

Correspondence Number: NLS2006069

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only 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	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		