



# Nebraska Public Power District

COOPER NUCLEAR STATION  
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NLS960050  
April 11, 1996

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

Subject: Response to Request for Additional Information and Submittal of Revision 1 to the Third Ten-Year Interval Inservice Inspection Program  
Cooper Nuclear Station, NRC Docket No. 50-298, License No. DPR-46

- References:
1. Letter (No. NLS950157) to USNRC Document Control Desk from J. H. Mueller (NPPD), dated October 18, 1995, "Third Ten-Year Interval Inservice Inspection Program"
  2. Letter to G. R. Horn (NPPD) from J. R. Hall (US NRC), dated February 8, 1996, "Cooper Nuclear Station - Request for Additional Information Regarding Third 10-Year Interval Inservice Inspection Program (TAC No. M94000)"

Gentlemen:

In Reference 1, the Nebraska Public Power District (District's) submitted to the Nuclear Regulatory Commission (NRC) Revision 0 of the Third Ten-Year Interval Inservice Inspection (ISI) Program. In Reference 2, the NRC forwarded a request for additional information (RAI) regarding this program. In response to the RAI, the District is providing, as Attachment A, its response to each of the individual NRC questions. Attachment C provides isometric/component drawings as requested.

Attachment B provides the pages affected by this response for additional information as Revision 1 to the Third Ten-year Interval Inservice Inspection Program. Revision 1 also includes five new relief requests, RI-20 through RI-23, and PR-09, a revision to RI-06, and other changes identified during the recent refueling outage. The District requests NRC approval of these relief requests, and the relief requests submitted per Reference 1, by June 30, 1996. Please update your program document to reflect the revised information contained in Attachment B to this letter.

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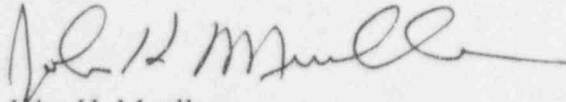
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NLS960050  
April 11, 1996  
Page 2 of 2

If you require any additional information regarding this submittal, please call.

Sincerely,



John H. Mueller  
Site Manager

/dnm  
Attachments

cc: Senior Project Manager w/attachments  
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/attachments  
USNRC - Cooper Nuclear Station

Regional Administrator w/ attachments  
USNRC - Region IV

NPG Distribution w/o attachments



Cooper Nuclear Station  
NRC Docket No. 50-298  
License No. DPR-46

ATTACHMENT A

Responses to requests for additional information or clarification.

- A. Isometric/component drawings are provided in Attachment C to this letter.
- B. Augmented examinations:
- (1) CNS is not committed to Branch Technical Position MEB 3-1. Components in high energy systems outside the code boundaries of safety systems are not addressed in the CNS ISI program.
  - (2) Procedures for the ultrasonic examination of reactor vessel welds comply with Regulatory Guide 1.150, revision 1. Technical position CT-1 has been revised to clarify this commitment.
  - (3) The CNS ISI Program for the scram system piping complies with GL 86-01 which endorsed NUREG-0803. Components 4 NPS and larger are examined in accordance with Class 2 requirements, and the scram piping is pressure tested every refueling outage with the Class 1 piping systems.

Other NRC commitments for augmented inservice inspection are addressed in the augmented section of the program. The requirements for subsequent inspection of the reactor core shroud are still under development and will be added when they are finalized.

- C. The CNS ISI Program complies with ASME XI rules for selection of Category C-F-2 welds for examination. We are not committed to any augmented examination of Category C-F-2 welds except as required by our commitment to NUREG-0313. Welds that are not required to be nondestructively examined due to thickness are included in the total population to which the 7.5% sampling rate is applied. The welds selected for examination are prorated based on the number of nonexempt welds in each system, and within each system by line size to the extent practical (Reference Notes 1, 2 and 3 of Table IWC-2500-1).

The Class 2 systems at CNS that provide RHR, ECC, and CHR functions are: Core Spray (CS), High Pressure Coolant Injection (HPCI), Reactor Core Isolation Cooling (RCIC), and Residual Heat Removal (RHR). The welds selected for examination, and the welds excluded from examination due to wall thickness are identified in the C-F-2 tables.

Cooper Nuclear Station  
NRC Docket No. 50-298  
License No. DPR-46

- D. As stated in our letter of May 5, 1995, it is our intention to perform the augmented examinations of the reactor vessel weldments required by 10CFR50.55a(g)(6)(ii)(A) by the end of the first period of the third 10-year inspection interval. Access restrictions that prevent full examination coverage may result in a revision of relief request RI-06.

During the second 10-year interval ultrasonic examinations of the reactor vessel weldments were performed in accordance with the Code and approved relief request RI-06. The following coverage was achieved:

Top Head to Flange Welds

VCB-BC6-1, VCB-BC6-2, VCB-BC6-3 were all examined with 91.3% coverage.

Vessel to Flange Welds

VCB-BC5-1, 2 & 3 were examined with 74% coverage.

Top Head Meridional Welds

HME-BB-1, 2, 3, 4, 5 & 6 were examined; however coverage was not calculated. Based on a review of exam data, coverage exceeded 90%.

Bottom Head Meridional Welds, Upper Set of Welds

HMA-BB-1, 2, 3, 4, 5, 6, 7 & 8 were examined; however coverage was not calculated. Based on a review of exam data, coverage exceeded 90%.

Bottom Head Meridional Welds, Lower Set of Welds

HMB-BB-1 & 2 were examined with 91.8% coverage on the 4 inch segment of weld which is accessible for examination outside the RPV skirt.

HMB-BB-3, 4, 5 & 6 were examined; however coverage was not calculated. Examination was limited to that portion of the weld accessible outside the support skirt.

Circumferential Shell Welds

VCB-BB-1, shell to bottom head circumferential weld, was examined with 94% coverage.

Cooper Nuclear Station  
NRC Docket No. 50-298  
License No. DPR-46

Longitudinal Shell Welds

VLA-BA-1 examined with 93.1% coverage on 56.5" of the weld accessible through the nozzle doors.

VLA-BA-2 examined with 95% coverage on 56.5" of the weld accessible through the nozzle doors.

VLA-BA-3 examined with 95% coverage on 56.7" of the weld accessible through the nozzle doors.

VLD-BB-1 examined with 95.8% coverage.

VLD-BB-3 examined with 95.2% coverage on 132.5" of weld examined.

Top Head Circumferential Weld

HMD-BB-2 was examined in 1993; however coverage was not calculated. Based on a review of exam data, coverage exceeded 90%.

Bottom Head Circumferential Weld, Upper Weld

HMC-BB-1 was examined Coverage was 86.8% with 91.4% weld coverage.

- E. NPPD's approach to the NIS-2 report is to include Class 3 as well as Class 1 and 2 repairs and replacements. Since this exceeds the Code requirement for the NIS-2 report no relief is required.
- F. Code Case N-408-2 has been incorporated into Section 3 of the Plan. CT-04 has been deleted. This change is included in Attachment B
- G. Code Case N-408-2 has been incorporated into Section 3 of the Plan.
- H. PT-01 describes the general approach used for pressure testing at CNS. If situations arise where the requirements of N-498 can not be met CNS will either revert to the requirements of IWA-5000, or will submit a relief request. At this time we have not identified any areas where compliance with N-498 can not be achieved.

Cooper Nuclear Station  
NRC Docket No. 50-298  
License No. DPR-46

- I. As stated in relief request PR-02, it is impractical to perform a system leakage test of the reactor coolant pressure boundary during startup. It is also impractical to require all valves within the boundary to be in their normal position for startup. During a normal startup the Cleanup and Feedwater systems are in operation and the Main Steam isolation valves are open. CNS proposes to perform the test prior to startup with the first isolation valve in each of these systems closed to facilitate the test. The inspection boundary would extend to the second isolation valve as required by Note 2 of Table IWB-2500-1. This relief request was provided to clearly state the differences between our method of performing the test and the specific language of the Code.
- J. Second 10-year interval relief request RI-05 was revised by Revision 4 of the program, submitted on July 14, 1995. Third 10-year interval relief request RI-05 is consistent with this revision.
- K. At the time the Third 10-year interval program was submitted the schedule for the last outage of the second interval had not been finalized. Since CNS had adopted Code Cases N-408-2 and N-491 mid-way through the second interval, a direct correlation to the scheduled examinations for the third 10-year interval can not be made. To the extent practical the schedule for examinations will be the same. Changes to the plant due to repairs, replacements or modifications which require a pre-service inspection may result in changes to the examination schedule. These changes will be reflected in future revisions to the plan.
- L. Attachment B to this letter includes four new relief requests, RI-20 through RI-23, and a revision to RI-06. (Relief Request RI-19 was previously submitted on December 16, 1995.) The need for these additional relief requests and for the revision to RI-06 was identified by examinations performed during the Fall 1995 refueling outage. A new relief request for pressure testing, PR-09, has been submitted for the HPCI and RCIC discharge piping. Relief from pressure test requirements for this piping was not required for the second interval. No additional relief requests are anticipated until the reactor vessel examinations are performed at the end of the first period (see response to Question D).

Cooper Nuclear Station  
NRC Docket No. 50-298  
License No. DPR-46

**ATTACHMENT B**