February 8, 1996

Mr. Guy R. Horn
Vice President - Nuclear
Nebraska Public Power District
P. O. Box 499
Columbus, NE 68602-0499

SUBJECT: COOPER NUCLEAR STATION - REQUEST FOR ADDITIONAL INFORMATION REGARDING THIRD 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM (TAC NO. M94000)

Dear Mr. Horn:

By letter dated October 18, 1995, the Nebraska Public Power District (NPPD) submitted the Third 10-Year Interval Inservice Inspection (ISI) Program for the Cooper Nuclear Station (CNS) for NRC review and approval, in accordance with the requirements of 10 CFR 50.55a.

The NRC staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory, has reviewed and evaluated the information provided in the above submittal. Based upon that review, the staff will require additional information in order to complete its review of the third 10-year interval ISI program for CNS. The staff's request for additional information (RAI) is enclosed. In order for the staff to complete its review in a timely manner, we request that you submit a response to the enclosed RAI within 60 days of the receipt of this letter. If you have any questions regarding this request, please call me at (301) 415-1336.

This requirement affects nine or fewer respondents and, therefore, is not subject to the Office of Management and Budget review under P.L. 96-511.

Sincerely,

Original signed by:
James R. Hall, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure: Request For Additional Information

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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REQUEST FOR ADDITIONAL INFORMATION
THIRD 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM
NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
DOCKET NO. 50-298

On October 18, 1995, the Nebraska Public Power District (NPPD) submitted the third 10-year interval Inservice Inspection (ISI) program for the Cooper Nuclear Station (CNS). The staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory (INEL), has reviewed and evaluated the information provided in that submittal. Based upon that review, the staff requires the additional information discussed below, in order to complete its review of the CNS third 10-year interval ISI program.

1. Scope/Status of Review

Throughout the service life of a water-cooled nuclear power facility, 10 CFR 50.55a(g)(4) requires that components (including supports) that are classified as American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Class 1, Class 2, and Class 3 meet the requirements, except design and access provisions and preservice examination requirements, set forth in ASME Code Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components", to the extent practical within the limitations of design, geometry, and materials of construction of the components. This section of the regulations also requires that inservice examinations of components and system pressure tests conducted during the successive 120-month inspection interval comply with the requirements in the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the start of a successive 120-month interval, subject to the limitations and modifications listed therein. The components (including supports) may meet requirements set forth in subsequent editions and addenda of the Code that are incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein. NPPD has prepared the Third 10-Year Interval Inservice Inspection (ISI) Program Plan for CNS to meet the requirements of the 1989 Edition of Section XI of the ASME Code.

As required by 10 CFR 50.55a(g)(5), if the licensee determines that certain Code examination requirements are impractical and requests relief, the licensee shall submit information to the Nuclear Regulatory Commission (NRC) to support that determination.

The staff has reviewed the information in the *Cooper Nuclear Station, Third 10-Year Interval ISI Program Plan*, Revision 0, submitted October 18, 1995, and the requests for relief from the ASME Code Section XI requirements that the licensee has determined to be impractical.

Enclosure

2. Additional Information Required

Based on the above review, the staff has concluded that additional information and/or clarification is required to complete the review of the CNS ISI Program Plan.

A. Provide isometric/component drawings that enable the staff to review the extent to which ISI examination samples meet the applicable Code requirements.

B. Address the degree of compliance with augmented examinations that have been established by the NRC when added assurance of structural reliability is deemed necessary. Examples of documents that address augmented examinations are:

(1) Branch Technical Position MEB 3-1, *High Energy Fluid Systems, Protection Against Postulated Piping Failures in Fluid Systems Outside Containment*;

(2) Regulatory Guide 1.150, *Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations*; and

(3) NUREG-0803, *Integrity of BWR Scram System Piping.*

It is noted that NPPD has discussed numerous augmented examinations currently being performed. Discuss the above referenced augmented examinations and any other augmented examinations that may not have been incorporated in the *Cooper Nuclear Station, Third 10-Year Interval ISI Program Plan.*

C. 10 CFR 50.55a(b)(2)(iv) requires that appropriate ASME Code Class 2 piping welds in the Residual Heat Removal (RHR), Emergency Core Cooling (ECC), and Containment Heat Removal (CHR) systems be examined. Portions of these systems should not be completely omitted from inservice volumetric examination based on Section XI selection criteria specified in Table IWC-2500-1 (i.e., piping wall thickness). The staff has determined that a 7.5% augmented volumetric sample of thin-wall welds constitutes an acceptable resolution at similar plants.

Define the systems, or portions of systems, that provide RHR, ECC, and CHR functions at Cooper Nuclear Station and provide a list of the subject welds that have been excluded from selection based on wall thickness as allowed by Table IWC-2500-1. From this list, identify those welds that will be scheduled for examination to provide an appropriate sampling of welds otherwise excluded from examination because of wall thickness.

D. Title 10 of the Code of Federal Regulations, Part 50, Section 50.55a(g)(6)(ii)(A), states that all licensees must augment their reactor vessel examinations by implementing once, during the inservice inspection interval in effect on September 8, 1992, the examination requirements for reactor vessel shell welds specified in Item B1.10 of Examination Category B-A of the 1989 Code. In addition, all previously granted relief for Item B1.10, Examination Category B-A, for the interval in effect on September 8, 1992, is revoked by the new regulation. For licensees with fewer than 40 months remaining in the interval on the effective date, deferral of the augmented examination is permissible with the conditions stated in the regulations.

It has been noted that Technical Approach and Position Number CT-01 addresses NPPD's commitment to develop an "RPV Examination Plan", for the examination of the reactor pressure vessel shell welds. NPPD further states that only welds and material weld repairs accessible from the outer surface of the reactor vessel will be scheduled for examination prior to completion of the "RPV Examination Plan". NPPD stated that the RPV Examination Plan is currently projected to be completed by the end of the first inspection period, which is April 30, 1999. The regulations require that the augmented examination be completed in the first period of the subsequent interval if not performed in the interval in effect on September 8, 1992. NPPD should be aware that if the augmented inspections are not completed by the end of the first period of the third interval, they will be in violation of regulatory requirements.

Therefore, please verify that the augmented examination will be completed in the first period of the third interval. In addition, provide the percent of volumetric coverage obtained on the circumferential and longitudinal shell welds from the outside surface during the previous interval.

E. In Technical Approach and Position Number CT-03, it appears that NPPD's position deviates from the reporting requirements of IWA-6220(c), "Records and Reports" and "Preparation". If this is the case, relief is required. Provide a detailed discussion of the NPPD position on report submittals in accordance with IWA-6220(c).

F. Technical Approach and Position Number CT-04 takes guidance from Code Case N-408-2 for exemptirg components in piping NPS 4 and smaller. Because the Code in effect does not allow exemption of components in piping exempted from examination, NPPD should either request relief from the examination of components in piping exempt from examination, citing the Code Case as an alternative, or adopt the subject Code Case.

G. The "Inservice Inspection Summary Table" (Section 5.0), Examination Category C-F, refers to piping exempt from NDE based on wall thickness (N-408-2). Discuss the reference to Code Case N-408-2 when it has not been adopted for use under Section 3.2.3.6 of the Program Plan.

H. Technical Approach and Position Number PT-01 describes the adoption of Code Case N-498 for Class 1 and 2 hydrostatic tests. Based on the review of PT-01, it appears that the requirements of this Code Case cannot be satisfied for all tests. NPPD has provided a general approach to performing hydrostatic tests; the staff requests that the licensee address specific areas where the requirements of the Code or of alternatives approved for use cannot be satisfied. Submit relief requests that address specific tests for which the requirements of the Code or the Code Case cannot be satisfied.

I. Request for Relief No. PR-02 addresses system leakage tests. A system leakage test is required following each refueling outage prior to plant startup. The Code does not require that this test be performed in conjunction with plant startup. It appears that NPPD has limited itself to performing the system leak test during plant startup and is requesting relief on that basis. Provide justification for the impracticality of alternative scheduling to alleviate problems associated with the system leak tests.

J. In review of Request for Relief RI-05, the previous interval's request for relief was read. The welds identified as RHR-CA-3A and RHR-CA-3B in the third 10-year relief request submittal appear to be the welds that were identified as RHR-CA-5A and RHR-CA-5B in the previous interval. Please verify that the welds are correctly identified.

K. In Section 16.0, "Component Examination Summary Listing", NPPD stated that, "the components and component supports selected are those anticipated to be examined during the third interval; however, other components and component supports may be substituted based on access, ALARA considerations, scheduled maintenance, or proposed modifications". It appears that NPPD is planning to substitute welds during the interval based on the aforementioned conditions. Because the Code requires that the same areas be examined during successive intervals, alternative weld selection must be authorized. Verify that the schedule of examinations is in compliance with the successive examination requirements of the Code, as applicable (reference IWB-2420, IWC-2420, and IWD-2420), and that the schedule of examinations will not be altered during the interval without authorization.

L. Verify that there are no relief requests in addition to those submitted. If additional relief requests are required, NPPD should submit them for staff review.