

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-298/88-08

Operating License: DPR-46

Docket: 50-298

Licensee: Nebraska Public Power District (NPPD)
P.O. Box 499
Columbus, Nebraska 68601

Facility Name: Cooper Nuclear Station (CNS)

Inspection At: CNS, Brownville, Nebraska

Inspection Conducted: March 14-18, 1988

Inspector:

W. M. McNeill
W. M. McNeill, Reactor Engineer, Materials
and Quality Programs Section, Division of
Reactor Safety

5/2/88
Date

Approved:

I. Barnes
I. Barnes, Chief, Materials and Quality
Programs Section, Division of Reactor
Safety

5/2/88
Date

Inspection Summary

Inspection Conducted March 14-18, 1988 (Report 50-298/88-08)

Areas Inspected: Routine, unannounced inspection of the inservice inspection program, its procedures, observation of its work activities and its data evaluation.

Results: Within the four areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

NPPD

- *L. A. Bray, Regulatory Compliance Specialist
- *S. S. Freborg, Assistant Plant Engineering Supervisor
- *M. D. Hamm, Security Supervisor
- *H. T. Hitch, Plant Services Manager
- *G. R. Horn, Division Manager, Nuclear Operations
- *R. W. Koeppel, Security Operations Supervisor
- *E. M. Mace, Manager, Technical Support
- *G. E. Smith, Quality Assurance (QA) Manager
- *G. R. Smith, Licensing Supervisor
- *G. A. Trevors, Division Manager, Nuclear Support
- *V. L. Wolstenholm, Division Manager, QA

General Electric Company (GE)

- E. P. Bailey, Inservice Inspection Project Manager
- J. L. Briggs, Level III
- M. D. Evich, Nondestructive Testing (NDE) Technician
- D. C. Hooper, Manager, Inspection Service
- J. Mason, NDE Technician
- R. A. Powell, NDE Technician
- P. Valden, NDE Technician

Hartford Steam Boiler Inspection and Insurance Company

- J. R. Tetreault, Authorized Nuclear Inservice Inspector (ANII)

*Denotes personnel attending the exit meeting.

The NRC inspector also contacted other personnel including administrative and clerical personnel.

2. Licensee Action on Previously Identified Inspection Findings

(Closed) Unresolved Item (298/8620-01): This item involved the licensee's trending of nonconformance reports and was previously addressed in NRC Inspection Report 50-298/87-17. The licensee has issued a letter documenting that it is the managers' responsibility to determine the groups responsible for negative trends. Outside audit findings are added to the trend reports as they are available. It is the manager's responsibility to correct for activity levels and determine the significance of a trend. The responsible QA engineer will be receiving training in statistical methods so that such things as the "Pareto Principle" can be applied. A recent trend report for the fourth quarter

of 1987 was reviewed by the NRC inspector. Based on the corrective actions taken to date and a planned inspection by the NRC of corrective action, this item is closed.

(Closed) Open Item (298/8630-09): This item involved the licensee's identification of the cause of cracking in the standby diesel generator heads. The licensee has documented a review by the standby diesel generator vendor (Cooper Industries) of the scenario identified in the supplement to Licensee Event Report (LER) No. 86-20. The NRC inspector reviewed the letter documenting the above and noted that the vendor suggested another scenario although the vendor agreed the one identified in the LER appeared to be the most likely failure scenario.

(Closed) Violation (298/8718-01): This violation dealt with the failure to report as required by 10 CFR 50.73. The licensee has reported the event in question as LER 87-022. In addition, training was held for the station staff which was also attended by NRC Regional management. The training appeared to the NRC to be satisfactory. The NRC inspector reviewed records of this training. Discussions with the NRC senior resident inspector indicated no further problems with regard to reporting of recent nonconformances.

3. Inservice Inspection (ISI)

The objectives of this inspection were to ascertain whether the licensee's program pertaining to ISI is complete and in conformance with regulatory requirements and the licensee's commitments, whether procedures pertaining to ISI cover all required aspects of the approved ISI program, and whether ISI and repair of components are performed in accordance with technical specifications (TS), the applicable ASME Code, correspondence between NRR and the licensee concerning relief requests, and requirements imposed by NRC/industry initiatives.

Additional objectives were to ascertain whether the reported data cover the scope of examination required during the current inspection period of the inspection interval as described in the ASME Code, TS, and the NRC accepted ISI program; whether the files are complete and properly dispositioned; and that a third party inspection service is used. In this regard, the NRC inspector reviewed TS, Amendment 116, dated February 17, 1988; the QA Program for Operations Policy Document, Revision 3, dated March 28, 1987; and the programmatic documents listed in Attachment 1.

a. Review of Program (73051)

The NRC inspector confirmed by review of the programmatic documents in Attachment 1, the following information. The CNS ISI program, Revision 3, was approved by the NRC on January 27, 1986. CNS committed to Section XI of the ASME Code through the Winter 1981 Addenda. CNS is presently in the first period of its second 10-year program. The first period was extended to include this outage by the

May 1987 Addenda to the ISI Program. The augmented ISI program addresses NRC Bulletin Nos. 74-3 and 80-13 as well as NUREG-0619.

The pressure testing, repair, and replacement requirements of Section XI of the ASME Code are addressed in maintenance procedures. The NRC inspector verified the qualifications of the Hartford Steam Boiler ANII and that the ISI contractor, GE, had been approved as a supplier of such services. There is one engineer in plant engineering dedicated to ISI. GE has a staff of 1 manager, 1 level III, and 13 NDE technicians. During this outage, about 250 examinations (14 percent of the program scope) are planned to be performed. Augmented inspections (relative to NRC Bulletins and NUREG requirements) as well as the jet pump holddown beams ultrasonic examinations are also scheduled to be performed. CNS QA is in the process of auditing the ISI activities to QA Plan No. 1500 as of the time of this inspection.

In the course of this inspection, it was noted by the NRC inspector that the latest addenda to the ISI program had not been reviewed by Station Operations Review Committee (SORC) although the previous addenda had been reviewed. A CNS procedure had been developed and implemented to deal with stand-alone type documents which included the ISI program. This procedure does not preclude SORC review. It was also noted that the ISI NDE procedures are SORC reviewed. Although the program is not called a procedure as such, it defines the ISI components and examinations to be in the program and the inspection frequencies of the examinations. The addenda in question did indeed make these sort of changes. As a result of the above events, the latest change to the CNS ISI Program was not subjected to an independent review. Although the change did not degrade the inspection of system integrity or operability the need for SORC review was questioned by the NRC inspectors. The failure to obtain SORC review was identified as an unresolved item (298/8808-01) pending clarification by the NRC staff of need for SORC review of changes to the CNS ISI program.

b. Review of Procedures (73052)

The NRC inspector reviewed the NDE procedures in Attachment 1 that have been used, to date, during this outage. In review of the procedures, it was noted that the ANII had not formally approved some of the current revisions to be used during this outage. It was known by CNS that approvals were not obtained at the time inspection activity of PRE-BG1, the reactor vessel ligaments, was conducted on March 9, 1988. In that Section XI of the ASME Code does not specifically require ANII approval of procedures prior to use, this subject is considered an open item pending NRC verification that ANII approval has been obtained of all procedure revisions used for ISI examinations (298/8808-02).

It was also noted by the NRC inspector that the calibration block identification for ultrasonic examinations in procedures was a source

of confusion. For example, in Procedure MIUL-W812 the calibration block was identified with a serial number and an incorrect drawing number. A review of data sheets documenting current inspection activities found that it appears that the correct calibration blocks are being used.

c. Observation of Work and Work Activities (73753)

The NRC inspector witnessed the performance of the liquid penetrant and ultrasonic examinations of pipe weld FWA BJ-63. The NRC inspector also witnessed the visual examination (VT-3 and VT-4) of supports HP-H7 and MS-H118. It was found that the approved procedure was followed. The personnel were qualified, and results were recorded as required. There were no Code repairs or replacement activities available to be witnessed at the time of the inspection.

d. Data Review and Evaluation (73755)

The NRC inspector reviewed the test data available. This included ultrasonic examinations of studs PRA-BG1 and ligaments PRE-BG1, visual examination of bushings PRD-BG1, liquid penetrant and ultrasonic examination of pipe welds FWD BJ-592 and FWA BJ-68, liquid penetrant examination of pipe weld RHB CF-13, and magnetic particle examination of weld CB-1A. The records were found by the NRC inspector to be in conformance with the procedure and ASME requirements. The qualifications of personnel and materials used were verified by the NRC inspector. In this regard, it was found that not all the individuals who were certifying eye examination results were identified on a GE memorandum which listed certifying personnel. This was identified as an open item pending licensee establishment of new certifications for affected personnel (298/8808-03). The records were found to identify the results, equipment used, and the calibration of the equipment. To date, no repair or replacement activities have been identified. In the course of this review, it was noted that one report (No. 014) identified the incorrect revision number of the procedure used. The NRC inspector verified that the incorrect revision was not available for use. It was also noted that, in general, it was difficult to correlate the data sheets with the ISI program line items. For example, ISI program line items PRA-BG1 were identified as RV studs. However, in regard to the above observations, it should be noted that the final review process of data sheets had not yet been completed.

4. Unresolved Item

Unresolved items are matters about which more information is required in order to ascertain whether or not the items are acceptable, violations, or deviations. The following unresolved item was discussed in this report:

<u>Paragraph</u>	<u>Item</u>	<u>Subject</u>
3	298/8808-01	SORC Review of ISI Addenda

5. Exit Meeting

The NRC inspector conducted an exit meeting on March 18, 1988, with the licensee personnel denoted in paragraph 1. The NRC senior resident inspector also attended. At this meeting, the scope and findings of the inspection were summarized.

ATTACHMENT 1

- Inservice Inspection Program for ASME Class 1, 2, and 3 Components, Revision 3, March 3, 1985
- NRC Letter D. R. Muller, "Second 10-Year Inspection Program," dated January 27, 1986
- October 1985 Addenda, dated October 31, 1985
- February 1986 Addenda, dated February 17, 1986
- May 1987 Addenda, dated June 1, 1987
- CNS Procedure 0.3, "Station Operations Review Committee," Revision 4, dated May 28, 1987
- CNS Procedure 0.4.1, "CNS Controlled Documents Other Than CNS Procedures and Vendor Manuals," Revision 0, dated February 1, 1986
- Maintenance Procedure 7.0.8, "Pressure Testing," Revision 4, dated January 5, 1987
- GE Procedure MIUB-W812, "Ultrasonic Examination of Pressure Retaining Bolting 2" or greater in diameter," Revision 1, dated February 3, 1988
- GE Procedure MIUL-W812, "Manual UT Examination of Flange Ligaments," Revision 1, dated February 10, 1988
- GE Procedure MIUP-W812, "Manual UT Examination of Full Penetration Welds," Revision 1, dated February 3, 1988
- GE Procedure IP-W812, "Liquid Penetrant Examination of Nuclear Power Plant Components," Revision 1, dated February 4, 1985
- GE Procedure IV3-W812, "Visual Examination Number 3," Revision 3, dated February 8, 1988
- GE Procedure IV4-W812, "Visual Examination Number 4," Revision 2, dated September 18, 1987
- Purchase Order Task 68, 84A-C15, CNS TO GE for ISI, dated June 27, 1986
- Purchase Order Task 124, 86A-MS2, CNS TO GE for augmented ISI, dated February 12, 1986
- CNS Approved Suppliers List - March 1988, dated February 29, 1988
- Vision Acuity Examiner Appointment letter, dated January 12, 1987