

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-282/82-14(DETP); 50-306/82-14(DETP)

Docket Nos. 50-282; 50-306

License Nos. DPR-42; DPR-60

Licensee: Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

Facility Name: Prairie Island Nuclear Generating Plant, Units 1 and 2

Inspections At: Northern States Power Company, Minneapolis, MN
Prairie Island Site, Red Wing, MN

Inspection Conducted: August 9 and 10, 1982

K. D. Ward
Inspector: K. D. Ward

8/26/82

Approved By: *D. H. Danielson*
D. H. Danielson, Chief
for Materials & Processes Section

8/27/82

Inspection Summary

Inspection on August 9 and 10, 1982 (Report Nos. 50-282/82-14(DETP); 50-306/82-14(DETP))

Areas Inspected: Review of inservice inspection (ISI) procedures, non-destructive examination (NDE) personnel certifications and data; Spent fuel rack QA/QC programs, NDE procedures and record review; previous inspection findings. This inspection involved a total of 9 inspector-hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

Persons Contacted

Northern States Power Company (NSP)

- *P. Krumpas, Superintendent Material and Special Processes
- M. Anderson, Assistant Materials & Special Processes Engineer
- L. Dahlman, Material and Special Processes Specialist
- **K. Kehren, Construction Superintendent
- P. Suleski, Supervising Engineer, QA
- L. Samson, QC Specialist
- C. Kinney, QA Specialist

The inspector also contacted and interviewed other licensee and contractor employees.

- *Denotes those attending the exit interview at Northern States Power Office.
- **Denotes those attending the exit interview on site.

Licensee Action on Previous Findings

(Closed) Unresolved Item 306/77-25-01, (Westinghouse Reactor Vessel UT Procedure No. 151-152, Revision 5, does not provide instructions relative to the site failure of a calibrated channel). The Westinghouse Level III assured the inspector that the instructions relative to the site failure of a calibrated channel is in the process of being incorporated into the latest revision of the UT Procedure. The information was received by telephone. Westinghouse is on site approximately every three years.

(Closed) Open Item 282/78-06-01, (Clarification of LMT QA Program, Revision 10.(a). The policy statement of the subject QA Program states that it is responsive to the "applicable" portions of 10 CFR Part 50, Appendix B, (b) in directing the control of final examination documentation through the provisions of the various process procedures). The inspector reviewed LMT QA Manual, Revision 14, dated October 29, 1980 and the items have been clarified.

Functional or Program Areas Inspected

1. Inservice Inspection

a. General Information

NSP contracted Lambert, MacGill, Thomas, Inc. (LMT), CONAM Inspection and Westinghouse Electric Corporation (W) to develop and perform the inservice inspection program in accordance with ASME Section XI, 1974 Edition, Summer 1975 Addenda, during June and July 1982, for Unit 2.

b. Procedure Review

The inspector reviewed the following procedures:

- . LMT, O&QA Manual Applicability to 10 CFR 50, Appendix B
- . LMT, Qualification and Certification of NDE Personnel, QA-6, Revision 13
- . LMT, Control and Certification of Nondestructive Examination Measuring and Test Equipment, QA-9, Revision 3.
- . LMT, Ultrasonic Tester Calibration, QA-10, Revision 4
- . LMT, Audits of LMT Operations and Suppliers, QA-12, Revision 5
- . LMT, Control of Operating and Quality Assurance Manual, QA-16, Revision 0
- . LMT, Notification of Reportable Indication, QA-27, Revision 0
- . LMT, Document Control for the WNP-2 Preservice Inspection, QA-28, Revision 0
- . LMT, WNP-2 PSI Notification of Reportable Indication Procedure, QA-31, Revision 0
- . W. Multi-Frequency Eddy Current Inspection of Heat Exchanger Tubing-Preservice and Inservice, MRS 2.4.2, GEN-23, Revision 3
- . CONAM, Procedure for Radiographic Examination of Welds, 75-RT-010, Revision 0
- . NSP, Magnetic Particle Examination, Yoke Method, MT-1, Revision 2
- . NSP, Wet Magnetic Particle Examination, MT-2, Revision 0
- . NSP, Liquid Penetrant Examination, PT-1, Revision 2
- . NSP, High Temperature Liquid Penetrant Examination, PT-2, Revision 0
- . NSP, Ultrasonic Examination of Pipe Welds, UT-1, Revision 1
- . NSP, Automatic Data Recording, UT-2, Revision 1
- . NSP, Ultrasonic Examination of Ferritic Vessels UT-3, Revision 1
- . NSP, Ultrasonic Examination of Studs and Bolts, UT-4, Revision 1
- . NSP, Axial Ultrasonic Examination of Studs and Bolts, UT-4B, Revision 1
- . NSP, Visual Examination, VT-1, Revision 2
- . NSP, Visual Examination of Assembled Hanger Assemblies, VT-2, Revision 2

c. Material and Equipment Certification

The inspector reviewed the certification documents relative to the following items:

- . Ultrasonic instruments, calibrations blocks, transducers and couplant
- . Liquid penetrant, magnaflux materials, penetrant, cleaner and developer
- . Magnetic particle, Magnaflux materials and equipment
- . Eddy current, equipment

d. NDE Personnel Certifications and Radiographic Review

The inspector reviewed several LMT, W NSP, and CONAM NDE personnel certifications in accordance with SNT-TC-1A, 1975 Edition.

Ultrasonic examinations (UT) were performed on an 1 1/2' wide 5 3/4" thick weld below the tube sheet on steam generator (SG) No. 22. Three indications were found approximately 4" to 9" away from the weld in the casting. (The sound wave must go through the casting so the weld can be UT by shear wave). Radiography was then performed and those radiographs were compared with the original radiographs. Radiography revealed no apparent defects. The radiographs were interpreted by a CONAM Level II(RT) NSP Level III(RT) and the inspector Level III(RT). It was determined that the ultrasonic reflectors were of metallurgical origin such as shrinkage in accordance with ASTM E 280, Class 2.

e. Review of Data Reports and Audits

The inspector reviewed data reports of the following systems and determined that they demonstrated that the QA/QC requirements were met.

- . Safety Injection
- . Boric Acid Tank
- . Feedwater A
- . Feedwater B
- . RHR Loop B
- . Seal Injection
- . Steam Generators - at total of 15 tubes in SG 21 and 12 tubes in SG 22 were mechanically plugged.

The inspector also reviewed a NSP QA Department Audit Report #82-34-18 of the ISI.

No items of noncompliance or deviations were identified.

2. Spent Fuel Storage Modification

a. General

The first letter was sent January 31, 1980 to the NRC, Washington, D.C. requesting to increase the spent fuel storage facilities. On May 13, 1981, the NRC authorized an increase in the storage capacity of the spent fuel pools.

Par System Corporation, St. Paul, MN fabricated 30 spent fuel racks for NSP in 1981 and 1982 and AZCo Incorporated installed the racks. The expansion program of the spent fuel racks appears to satisfy the requirements of the Purchase Order No. 5722 dated April 18, 1981 and NSP, Standards Requirements for Supplier

Nuclear Quality Assurance Programs, QAR4-1, Revision 2. There are a total of 462 storage tubes in Pool No. 1 and 1120 storage tubes in Pool No. 2.

b. Review of Procedures

The inspector reviewed drawings and procedures of the following activities and determined that the applicable procedures and material were used.

- . Qualified welding procedures
- . NDE procedures
- . Procurement of materials
- . Receipt inspection
- . Storage
- . Unloading of spent fuel racks
- . Installation, leveling and gapping new racks
- . Rigging for spent fuel work

c. Review of Records, Reports & Certifications

The inspector reviewed the following documentation items and determined that the applicable requirements of QC/QA commitments have been met.

- . Material certification NDE and Welding wire and plate
- . Welder qualification records
- . Weld examinations and acceptance records
- . NDE personnel qualification certifications
- . Final test reports
- . Nonconformance reports
- . Certificate of conformance
- . Receiving reports
- . Fabrication and inspection records

Also reviewed NSP audit of AZCo QA Program.

No items of noncompliance or deviations were identified.

Exit Interview

The inspector met with NSP representative (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report.