U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-263/78-21

Docket No. 50-263 License No. DPR-22

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

Facility Name: Monticello Nuclear Generating Station

Inspection At: Monticello Site, Monticello, Minnesota

Inspection Conducted: October 24-25, 1978, and February 27-28, 1979

Inspector: D H Danielson for C. C. Williams 3/29/79

Approved By: D H Danielson D. H. Danielson, Chief 3/29/79
Engineering Support Section 2

Inspection Summary

Inspection on October 24-25, 1978, and completed on February 27-28, 1979 (Report No. 50-263/78-21)
Areas Inspected: Inservice inspection, torus modification, and main steam equalizer piping modification; including QA/QC programs, implementing procedures, work activities, and documentation review. The inspection involved a total of 28 inspector-hours onsite by one NRC inspector.
Results: No items of noncompliance or deviations were identified.

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DETAILS

Persons Contacted

Principal Licensee Employees

*L. Eliason, Plant Manager
*P. Krumphs, Superintendent Materials and Special Processes
*D. Hansen, Engineer
*D. Vincent, Project Engineer
R. Goranson, Engineer
P. Damman, Superintendent Nuclear QA
R. Nelson, QA Engineer
*T. McFadden, General Superintendent Operation QA

Licensee Contract Personnel

Hartford Steam Boiler Engineering and Insurance Company

L. Dumalay, Authorized Inspector Modifications
K. Lindstrom, Authorized Inspector ISI

Lambert - MacGill - Thomas, Incorporated

T. G. Lambert, Level III Examiner

*Denotes those present at the exit interview.

Functional or Program Areas Inspected

1. Inservice Inspection (ISI)

a. Northern States Power Company (NSP) has performed the required inservice examinations during this the first outage in the third period to the requirements of the 1974 ASME Code, Section XI through summer 1975 Addenda. All examinations planned for this outage were accomplished. Only minor deficiencies on various hangers and supports were noted. These examinations commenced on October 10, 1978. All final records are now available at the site. The requirements of the Moticello Plant Technical Specification Section 4.6.1 were determined by the NRC inspector to have been met.

Four of the recirculation inlet nozzles were examined in the thermal sleeve assembly attachment area (threaded attachment). No adverse conditions were identified.

b. Lambert - MacGill - Thomas, Incorporated (LMT) supplied inspection personnel, equipment and services for these examinations of systems and components.

2. Review of QA Program

The NSP QA/QC program requirements pertaining to ISI activities were examined and found to conform to 10 CFR 50, Appendix B. Control copy No. 18 dated May 23, 1978, of the LMT QA program was examined. Implementation of these programs as demonstrated by NSP audits and LMT performance was examined and found to conform to the requirements.

No items of noncompliance or deviations were identified.

3. Observation of ISI Activities

The inspector determined, through observation, examination and discussion, that the licensee met the programatic requirements of the special process procedures for ultrasonic, liquid penetrant, magnetic particle and visual examination.

The LMT inspection personnel were observed to perform selected ISI activities in accordance with the approved procedures. These observations included liquid penetrant testing, ultrasonic testing, and record keeping activities.

No items of noncompliance or deviations were identified.

4. ISI Record Reviews

The inspector observed and reviewed the establishment and control of the examination reports, procedures, equipment and material certifications and certain nonconformance reports, during these examinations. No deficiencies were noted.

The inspector examined the final ISI records (all associated documentation) at the NSP corporate headquarters on February 27, 1978. No deficiences were noted in the content and organization of the documentation for inservice and preservice inspection activity. Records for the base line examination of the reactor and secondary system modifications were included in this review.

Typical of the NDE Personnel Records reviewed were those for T. G. Lambert, J. E. Hill and R. Burlingame by Lambert - MacGill - and Thomas, each of whom met the requirements of SNT-TC-IA for the designated level of qualification.

Typical of the ISI Instrument and certifications of calibration, materials, and other qualifications were those examined for Nutech Instruments Serial No. 128, 130; Thermometer Serial No. 118, and Liquid Penetrant Materials batches No. 5F086 and 5G004. Each of the above, among others, met the certification and qualification requirements.

No items of noncompliance or deviations were identified.

5. IE Bulletin No. 78-11 (Torus Weld Examination, Grindouts and Rewelding)

Records associated with the NSP response to IE Bulleting No. 78-11 dated July 24, 1978, were examined at the site. This examination and discussion with the licensee personnel demonstrated that NSP met the requirements of their commitment. That is, the required visual and magnetic particle examination was performed, identified defects on the torus shell were ground out, special welding procedures were developed and the necessary repairs were made. The Nutech Engineering Company provided engineering analysis and Cherne Construction performed the repairs. The code requirements for these repairs were defined by Nutech specification NSP-01-309 and NSP-01-150. This matter is considered resolved.

6. Torus (Containment Suppression Chamber) Modifications

a. During this outage the following modifications to the torus and associated systems were made:

(1) T-Quenchers (spargers) replaced five ramheads on the safety relief valve discharge lines.
(2) Vent Header deflectors were installed.
(3) All down commers were shortened.
(4) The upper supports of the high pressure injection system sparger was removed.
(5) The Reactor Core Isolation Cooling System sparger support was modified.
(6) The torus ring girder drain holes were enlarged.
(7) Residual Heat Removal System discharge line was modified.

b. The Mainsteam System equalizer line was installed. (Applicable codes: ASME III 1977 summer, ANSI B31.1b-1973 Consultant Bechtel)

c. The above activities (6.a and b) were conducted in accordance with the requirements of ASME Section XI, 1977 Edition with Addenda through Summer 1977 and with three exceptions were concurred with by state of Minnesota Division of Boiler Inspection.

These modifications were managed by the NSP Plant Engineering and Construction Department. Nutech Company provided engineering support and the work was done by the Cherne Contracting Corporation. The Cherne Quality Assurance program was implemented. The Peabody Company supplied NDE services. The Hartford Steam Boiler Inspection and Insurance Company was the authorized inspection agency.

The Mainsteam System line welds were completely examined by ultrasonic testing and radiography, in lieu of a system hydro-static test.

d. The NRC inspector examined NSP documents establishing approval of the Cherne QA program. This program was sucessfully implemented as demonstrated by NSP QA audits and surveillances and this inspection. The inspector examined each "design change package" associated with these modifications and the control of the subject documentation. No deficiencies were noted.

e. The inspector examined selected sections of 12 specifications for these modifications and no discrepancies were noted. Examples of the specifications are as follows:

Specification No. NSP-24-001 (Vent Header)
Specification No. NSP-24-024 (Welding Material)
Specification No. NSP-24-025 (Vent Header Material Requirements)

No deficiencies were noted.

f. The inspector examined the NSP purchase orders associated with these modifications and found this documentation conforming to the QA and technical requirements.

g. The inspector reviewed weldor qualification requirements maintained and implemented by NSP and Cherne. No deficiencies were noted.

h. The NRC inspector examined 15 material certifications which demonstrated in each case that the requirements of the purchse order and design specifications had been met.

i. The inspector observed welding activity within the torus and examined the documents and QC controls on this activity. No deficiencies were noted.

j. The NRC inspector examined the Cherne "traveler system" and "master check-list" used to control the fabrications. No deficiencies were noted.

k. The inspector reviewed the Cherne identified nonconformance reports involved in these activities. All were properly documented. IE NCR Nos. 6.5a-4, 6.51-1, 6.5b-2 6.5.5-3 ect. The inspector reviewed NSP audits of this modification activity and concluded that the audit activity met the NSP QA requirements.

l. The NRC inspector discussed the progress of these modifications with the Hartford Steam Boiler representative. He reported that no significant problems or ommissions had occurred.

m. The NRC inspector evaluated selected Mainsteam System piping radiographs and associated records. No deficiencies were noted.

n. The inspector audited the final documentation package for each of these modifications and found the records to be well organized, comprehensive in detail. These records demonstrated the NSP and QA and technical requirements were met.

It is the conclusion of the NRC inspector, based on these examinations, that these modifications have been sucessfully implemented in accordance with NSP commitments. Review of NSP documentation showed that the appropriate FSAR changes were in process.

No items of noncompliance or deviations were identified.

Exit Interview

At the close of each portion of this inspection the NRC inspector discussed results with the licensee's representatives as documented under Persons Contacted.