U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-263/81-26(DPRP)

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, MN

Inspection Conducted: December 1, 1981, through February 26, 1982

Inspectors: C. H. Brown 3/23/82

A. L. Madison 3/23/82

Approved By: J. F. Streeter, Acting Chief 3/23/82
Reactor Projects Section 2C

Inspection Summary

Inspection on December 1, 1981 through February 26, 1982 (Report No. 50-263/81-269(DPRP))
Areas Inspected: Routine inspection by the resident inspectors of operations during maintenance outage; IE Circular and Information Notice followup; operational safety verification; monthly maintenance observation; monthly surveillance observation; audit program and implementation; fire protection; offsite review committee; emergency preparedness; loss of offsite power; and followup on previous inspection findings. The inspection involved a total of 360 inspector-hours onsite by two NRC inspectors including 131 inspector-hours onsite during off-shifts.
Results: No items of noncompliance were identified in 10 of the 11 areas inspected. One item of noncompliance was identified in one area (surveillance not performed at the required frequency - Paragraph 9).

DETAILS

1. Persons Contacted

a. Northern States Power

*W. A. Shamla, Plant Manager
*M. H. Clarity, Plant Superintendent, Engineering and Radiation Protection
*R. L. Scheinost, Superintendent, Quality Engineering
*F, L. Fey, Superintendent, Radiation Protection
*J. R. Pasch, Superintendent of Security and Services
*W. E. Anderson, Plant Superintendent, Operations and Maintenance
*D. D. Antony, Superintendent, Operating Engineering
*S. L. Pearson, Superintendent of Operations
*H. M. Kendall, Plant Office Manager
E. Ward, Manager, Nuclear Environmental Services
*L. Mayer, Manager, Nuclear Support Services
B. Tam, Supervising Engineer, Electrical
W. Fredricks, Assistant Administrator Regulatory Liaison
P. Kamman, Superintendent, Nuclear Quality Assurance
W. Jokela, Manager, Quality Assurance

b. Civil Defense Directors

C. Peterson - Sherburne County
G. Reese - Wright County

The inspectors also interviewed and talked with members of the Operations, Operations Engineering, Maintenance, and Technical Engineering Sections and members of other NSP divisions and contractors.

*Denotes licensee representatives attending the management interviews during the inspection period.

2. Followup on Previous Inspection Findings

(Closed) Open Item (263/81-25-01): Guard force meeting on professionalism and attentiveness. The licensee conducted a meeting with all security supervisors to emphasize the importance of professionalism and attentiveness while on duty.

(Closed) Open Item (263/81-25-02): Guard force policy statement. The licensee issued a policy statement addressing professionalism and conduct of guards while on duty and discussed the policy statement with the guards.

3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of January. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the Unit 1 Reactor Building and Turbine Building were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the month of January, the inspector walked down the accessible portions of the Residual Heat Removal System to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No items of noncompliance or deviations were identified.

4. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

Maintenance activities on the following systems/components were observed/reviewed:

Core Spray System
High Pressure Core Injection System
Diesel Generators

Following completion of maintenance on the above systems. The inspectors verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the Reactor Protection System and High Pressure Core Injection and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities:

Condenser Low Vacuum Scram
Source Range Monitor Rod Block
Diesel Generator Time Delay Relay
Steam Line High Radiation Scram
Drywell High Pressure Scram
Diesel Generator Operation

No items of noncompliance or deviations were identified.

6. IE Circular and Information Notice Followup

For the IE Circulars and Information Notices listed below, the inspector verified that they were received by the licensee management, that a review for applicability was performed, and that if the circular were applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

(Closed) IEC 80-23	Potential Defects in Beloit Power Systems Emergency Generators
(Closed) IEC 81-05	Self-Aligning Rod End Bushings for Pipe Supports
(Closed) IEC 80-22	Confirmation of Employee Qualifications

(Closed) IN 80-43	Failures of the Continuous Water Level Monitor for the Scram Discharge Volume at Dresden Unit No. 2
(Closed) IN 80-20	Loss of Decay Heat Removal Capability at Davis-Besse Unit 1 While in a Refueling Mode
(Closed) IN 81-16	Control Rod Drive System Malfunctions
(Closed) IN 81-22	Laws on Nuclear Sabotage and Protection of Nuclear Inspectors
(Closed) IN 81-07	Potential Problem with Water-Soluble Purge Dam Materials Used During Inert Gas Welding

No items of noncompliance or deviations were identified.

7. Maintenance Outage

The maintenance outage commenced October 24, 1981, was completed and the generator was synchronized to the grid on January 18, 1982. The major projects during the outage included installation of the modified feedwater spargers, repair of core spray lines, continuation of the Mark I torus modification, and fire protection and TMI required items. A main turbine inspection was performed which revealed a crack in the 11th stage wheel which required the wheel to be removed. The turbine is derated about 2% until repairs can be completed during a future outage. Selected design change work packages were reviewed and the work in progress was observed. The package review will be completed after the licensee has completed their required reviews.

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of December. The inspector verified surveillance tests required during the shutdown were accomplished, reviewed tagout records, and verified applicability of containment integrity. Tours of reactor building, and containment and turbine building accessible areas, including exterior areas were made to make independent assessments of equipment conditions, plant conditions, radiological controls, safety, and adherence to regulatory requirements and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector observed plant housekeeping/cleanliness conditions, including potential fire hazards, and verified implementation of radiation protection controls. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan. The inspector reviewed the licensee's jumper/bypass controls to verify there were no conflicts with technical specifications and verified the implementation of radioactive waste system controls. The inspector witnessed portions of the radioactive waste systems controls associated with radwaste shipments and barreling.

No items of noncompliance or deviations were identified.

8. Loss of OffSite Power

During the shutdown on January 7, 1982, power to the site was interrupted for 1 to 2 minutes until the operators restored power from the alternate source. The diesels started and automatically supplied the emergency busses. The reactor remained in cold shutdown.

The licensee's investigation revealed that an insulator had shorted out and caused damage to the No. 10 transformer. The No. 10 transformer will be taken offsite to be rebuilt. Power is supplied to the site via a spare winding in the No. 6 transformer. The licensee performed a transient analysis for plant loads fed through the 1R & 1AR transformers to verify that the No. 6 transformer space winding had sufficient capacity. The inspector is following the licensee's actions and evaluations. This is an open item (263/81-26-01).

9. Fire Protection System

On December 10, 1981, the screen wash pump (one of the three fire pumps) was taken out of service to complete a design change after the other two fire pumps had been verified operable. Due to problems encountered in completing the design change, the job was delayed and not completed until December 14, 1981. The design change was originally planned to be completed December 10, 1981. As a result of inadequate communications between shift supervisors and an incorrect Work Request Authorization (WRA), daily surveillance testing of the two operable fire pumps was not conducted as required by the Technical Specifications on December 11, 12, and 13. This matter was reported by the licensee to the resident inspectors.

Two WRAs were initiated during the maintenance outage for the design change that required the screen wash pump to be out of service. Both WRAs had the "No" block for "Technical Specification Consideration" checked. This error was not detected by at least four (4) licensed management personnel during the review and approval of the WRAs prior to commencement of work. The work governed by the first WRA was performed in November and resulted in the pump being out for three days; however, the required surveillance was performed even with the incorrect WRA. As already discussed, the required surveillance resulting from the second WRA was not performed on December 11, 12, and 13.

Although personnel involved in both WRAs were basically the same, the incorrect December WRA was not flagged by the shift supervisor to his relief as needing followup due to the shift supervisor's impression that the job would only take a few hours to complete. The shift supervisor normally flags items that need ongoing attention by separating those WRAs and making log entries to pass the information to the following shifts. The shift supervisor that had approved taking the pump out-of-service on December 10 (his last shift before the weekend off) noted from his log review on December 14 (first shift back) that the pump had

not been returned to service and that tests had not been performed on the other pumps. He had the tests performed and the results revealed the other pumps were operable. The screen wash pump was returned to service later that day.

Technical Specification 3.13.B.2 requires, in part, that if one pump required by section 3.13.B.1.a is inoperable, surveillance required by section 4.13.B.2 (daily verification of operability of remaining fire pumps) be performed until the inoperable pump is returned to operable status. The licensee's failure to perform this surveillance on December 11, 12, and 13 is considered to be in noncompliance with Technical Specification 3.13.B.1 (263/81-26-02).

10. Audit Program and Implementation

The inspectors reviewed the licensee's audit program to ascertain whether routine audits were being conducted by qualified personnel to assure that activities are in conformance with regulatory requirements, commitments in the application and industry guides or standards. The licensee's QA audit functions are performed by a group from the corporate office which is removed from power production and plant operations.

The inspectors found an adequate auditor training program being implemented. During January 1982 the licensee instituted an auditor qualification program. Up to that time, only lead auditors were required to complete a qualification program; however, auditors were not allowed to perform audits without a lead auditor in attendance.

The inspectors reviewed audit scheduling, audit procedures and specific audits. The frequency of audits was in conformance with technical specifications and the QA plan. The audit procedures provide adequate guidance and the reports reviewed clearly defined the scope of the audit and the results. Appropriate followup actions, when required, were taken.

The inspectors noted that written responses to audit reports are only required by the licensee's procedures when nonconformance or deficient items are found. Written responses to nonconformances and deficiencies are timely and adequately address the findings; however, no followup is required or taken for recommendations which are often made by auditors.

The inspectors noted that all audits are preceded by a one-month notification to the group to be audited. While this is in accordance with ANSI 45.2.12, the inspectors stated that the licensee should consider conducting occasional unannounced audits. The licensee has taken this under advisement.

Security audit functions are performed by the Safety Audit Committee. No formal review of industrial safety is performed by the licensee.

No items of noncompliance or deviations were identified.

11. Offsite Review Committee

The inspectors reviewed the records of the Safety Audit Committee to ascertain whether their review functions are conducted in accordance with Technical Specifications and other regulatory requirements. The review included changes in the SAC charter and administrative procedures governing its actions. The inspectors reviewed the committee's disposition of safety evaluations, noncompliance items, proposed changes to the technical specifications, events requiring 24-hour notification to the NRC, proposed changes to procedures, 10 CFR 50.59 reviews, several recent audits performed by members of the SAC, and the Fire Protection Audit performed by a consultant.

The chairman of the Safety Audit Committee intends to retire in May 1982. The Vice-Chairman, will temporarily act as chairman. No permanent replacement has been selected at this time.

No items of noncompliance or deviations were identified.

12. Emergency Preparedness

The inspectors reviewed the installation of the emergency notification system required by February 1, 1982. The inspectors also witnessed testing of the siren portion of the system in Wright and Sherburne Counties. A separate report will be issued concerning this review by the RIII Emergency Preparedness Section.

13. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the inspection period and at the conclusion of the inspection on March 3, 1982, and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspector's comments and the item of noncompliance.