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

REGION III

Report No.: 50-282/78-23; 50-306/78-23

Docket No.: 50-282; 50-306 License No.: DPR-42; DPR-60

Licensee: Northern States Powe
414 Nicollet Mall
Minneapolis, MN 55401

Facility Name: Prairie Island, Units 1 and 2

Inspection At: Prairie Island Site, Red Wing, Minnesota

Inspection Conducted: December 1-29, 1978

Inspector: RFW for C. D. Feierabend 1-26-79

Approved By: RFWarnick R. F. Warnick, Chief 1-26-79
Reactor Projects Section 2

Inspection Symmary

Inspection on December 1-29, 1978 (Reports No. 50-282/78-23; 50-306/78-23)
Areas Inspected: Routine resident inspection of plant operations, radiation protection, security, maintenance, refueling and startup activities, radioactive waste systems, calibrations, surveillance testing, followup on previous inspection findings and nonroutine event reports. The inspection involved 131 inspector hours onsite by one NRC inspector.
Results Of the eleven areas inspected, no items of noncompliance or deviations were found in ten areas. One item of noncompliance was found in one area (infraction, failure to follow a test procedure, Paragraph 12e).

DETAILS

1. Personnel Contacted

*F. Tierney, Plant Manager
J. Brokaw, Superintendent Operations and Maintenance
E. Watzl, Superintendent, Plant Engineering and Radiation Protection
*A. Hunstad, Staff Engineer
R. Lindsay, Operations Supervisor
J. Nelson, Maintenance Supervisor
D. Schuelke, Radiation Protection Supervisor
R. Warren, Office Supervisor
J. Hoffman, Plant Engineer, Technical
D. Mendele, Plant Engineer, Operations
M. Sellman, Plant Engineer, Nuclear
S. Northard, Nuclear Engineer
G. Sundberg, Instrument Engineer
J. Ruether, Engineer
R. Hansen, Engineer
D. Haugland, Engineer
D. Cragoe, Shift Supervisor
R. Held, Shift Supervisor
P. Ryan, Shift Supervisor
P. Valtakis, Shift Supervisor
J. Lyons, Chief Electrician
W. Phillips, Assistant Maintenance Supervisor

*Denotes those present at exit interview

2. Licensee Action on Previous Inspection Findings

a. (Closed) Noncompliance (282/78-04): Failure to Calibrate Load Cells. The inspector verified that the load cells had been calibrated prior to start of Unit 2 refueling.

b. (Closed) Noncompliance (282/78-11; 306/78-12): Failure to maintain special test records. Licensee corrective action was verified.

c. (Closed) Noncompliance (282/78-11: 306/78-12): Failure to prepare a written storage procedure. Licensee corrective action was verified; however, the area of storage procedures, storage facilities, and access controls, that is not in accordance with ANSI 45.2.9-1974, remains unresolved.[1/ 2/]

d. (Closed) Noncompliance (282-78/14; 306-78/15): Failure to follow radiation safety procedure. Licensee corrective action was verified.

1/ IE Inspection Reports No. 050-282/77-12; 050-306/77-08.
2/ IE Inspection Reports No. 050-282/78-11; 050-306/78-12.

e. (Closed) Noncompliance (282/78-14; 306/78-15): Failure to follow radiation safety procedure. Licensee corrective action was verified.

3. Organization

The inspector verified that there had been no recent changes in plant key supervisors and that the staff is organized as described in Technical Specifications.

There has been one change in the Safety Audit Committee. Mr. G. Jacobson, Superintendent Nuclear Plant Projects, was appointed to replace M. Voth, Nuclear Safety and Technical Services Engineer, who has accepted employment elsewhere.

4. Plant Operation

The inspector reviewed plant operations, including examination of selected operating logs, special orders, temporary memos, and jumper and tagout logs for the month of December. Special attention was focused on operation of Unit 1 during refueling and startup activities in progress in Unit 2, following completion of a three week refueling outage.

No items of concern were identified.

5. Security

The inspector conducted periodic observations of access control, issuing badges, vehicle control, escorting and communication checks.

No items of concern were identified.

6. Refueling Operations - Unit 2

The inspector observed the status of Unit 2 systems during refueling and performed a walk-thru of selected portions of the safety injection system and the reactor coolant system to verify that valve lineups were completed in accordance with licensee procedures.

The inspector reviewed water chemistry records and determined that reactor coolant and secondary system chemistry was within specifications for startup.

The inspector observed post refueling startup testing in progress, including portions of rod position indication calibrations, temperature coefficient measurements, and flux maps at different power levels.

No items of noncompliance or deviations were identified.

7. Maintenance

The inspector observed removal of the reactor upper internals. Removal and placement on the storage stand was accomplished in accordance with the licensee's procedure No. D4 dated October 12, 1978. Precautionary measures included use of full face masks during lifting and transfer to the storage stand, however, no airborne activity was encountered. The operation was well planned, supervised and monitored.

The inspector reviewed several Work Requests (WR's) and Work Request Authorizations (WRA's) and verified that all required reviews and approvals had been completed. The inspector observed work in progress during repairs to containment purge valves and during preventive maintenance performed on safeguards breakers.

The inspector discussed operability of the fan coil unit (FCU) dampers with maintenance supervisory personnel. Because of earlier failures the dampers have been routinely inspected during routine containment inspections conducted weekly on alternate units. Two of the dampers on Unit 1 have been removed from service (blocked in the safeguards position one at a time) so that maintenance could be completed on the couplings and actuators. The licensee indicated that a study of the actuator design is being initiated to determine if changes may be required to reduce maintenance and assure reliability. The inspector will follow the results of the licensees study and resolution.

No items of noncompliance or deviations were identified.

8. Radiation Protection

The inspector examined high radiation area posting and controls, verified operability of constant air monitors in operation during refueling operations, and observed operations being conducted under control of radiation work permits.

No areas of concern were identified.

9. Radioactive Waste Systems (RWS)

The inspector reviewed records for RWS effluent releases for the period December 3 through December 9, 1978, determined that all releases had been authorized and accomplished in accordance with licensee approved procedures and that effluent control instrumentation was verified to be operable and in service for each release. The inspector observed operation of the RWS system during a release in progress.

No items of concern were identified.

10. Calibration

The inspector selected two calibration test instruments used for calibration of plant equipment, verified that accuracy was traceable to acceptable standards, and that the calibration frequency had been met.

a. PI No. 263,Wallace & Teirman Test Gauge, Range 0-40 inches water, Model No. 62C-2C-0040, Serial No. 10117

b. PI No. 55, Fluke Digital Voltemeter, 0-1000 volts d.c., Model 8100A-02, Serial No. 3094

The inspector observed calibration of accumulator level transmitters in progress and a portion of the calibration of the rod position indication system.

No areas of concern were identified.

11. Surveillance Testing

The inspector witnessed a portion of test SP 2085, Containment Spray Nozzle Test. The test was conducted with air flow through the spray piping and observation of deflection of helium filled balloons at each spray nozzle. Some air turbulence near the highest spray ring made testing more time consuming, however, the test results appeared to be satisfactory.

12. Licensee Event Reports (LER's)

a. P-RO-78-19 dated October 12, 1978, Failure of NIS Power Range Channel 2N41. (Closed)

b. P-RO-78-08 dated May 5, 1978, Bus 26 Locked Out During Electrical PM on Bus 16. (Closed)

The inspector reviewed the operational aspects during a previous inspection. 3/ Subsequent to submitting the LER the licensee reviewed the circuit design and determined that a similiar occurrence would be prevented by a single design change. Design Change No. 78L-504 was reviewed, approved, and installation completed on December 11, 1978. The licensee plans to submit a revised LER.

c. P-RO-78-13 dated June 16, 1978, Failure of No. 14 Fail Coil Unit Discharge Damper to Operate as Required. See discussion in paragraph 7 above. (Closed)

3/ IE Inspection Reports No. 050-282/78-04; 050-306/78-05

d. P-RO-78-26 dated July 28, 1977, Inoperability of No. 12 Fan Coil Unit Damper. See discussion in paragraph 7 above. (Closed)

e. P-RO-78-23 dated December 20, 1978, Bus 16 Locked Out During Preventive Maintenance on Bus 25. (Closed)

The inspector reviewed records and discussed the event with the plant staff and determined that the occurrence was accurately described.

The maintenance activities in progress were being performed by corporate relay test personnel, using a preventive maintenance procedure that had been properly reviewed and approved by the plant staff. The technician apparently applied the jumper believing it to be needed to perform the test, however, the jumper was not specified nor required by the procedure. This is considered to be noncompliance with Technical Specification 6.5.A.

Further discussions with the plant technical staff indicated that the relay test personnel involved were familiar with plant practices based on testing done during previous refueling and should have know the procedure for obtaining authorization for use of a jumper. The responsible engineers indicated that the subject of strict adherence to test procedures and use of jumpers during testing would be included in pre-outage briefings of relay test personnel.

13. Exit Interview

The inspector attended exit interviews conducted by IE inspectors:
L. Hueter and N. DuBry on December 1, 1978
I. Yin on December 1, 1978
K. Ward on December 6, 1978

The inspector conducted weekly interviews with plant management personnel and conducted an exit interview with Messrs. Tierney and Hunstad at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection. One item of noncompliance, was identified (Failure to follow procedure, Paragraph 12e).

Attachment: Preliminary Inspection Findings

OFFICE OF INSPECTION AND ENFORCEMENT

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE	2. REGIONAL OFFICE
Northern States Power Company 414 Nicollet Mall Minneapolis, MN 55401 Prairie Island 1 (Redwing, MN) Prairie Island 2 (Redwing, MN)	U.S. Nuclear Regulatory Commission Office of Inspection & Enforcement, RIII 799 Roosevelt Road Glen Ellyn, IL 60137

3. DOCKET NUMBERS	4. LICENSE NUMBERS	5. DATE OF INSPECTION
50-282; 50-306	DPR-42: DPR 60	Dec 1 – 8, 1978

☒ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☐ 7. The following matters are preliminary inspection findings:

☐ 8. These preliminary inspection findings will be reviewed by NRC Supervision/ Management at the Region III Office and they will correspond with you concerning any enforcement action.

C D Feierabend

Nuclear Regulatory Commission Inspector

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Nuclear Regulatory Commission Inspector

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3. DOCKET NUMBERS 50-282; 50-306	4. LICENSE NUMBERS DPR-42; DPR 60	5. DATE OF INSPECTION December 18-19 and 28-29,1978

☐ 6. Within the scope of the inspection, no items of noncompliance or deviation were found.

☒ 7. The following matters are preliminary inspection findings:

Section 6.5.A of the Technical Specifications requires that detailed written procedures, including applicable checkoff lists and instructions covering testing requirements that could have an effect on nuclear safety shall be prepared and followed.

Contrary to the above, on November 30, 1978, during relay testing on Unit 2 an electrical jumper that had not been identified to be required by procedure BT-256 was applied without obtaining proper review and approval.

☒ 8. These preliminary inspection findings will be reviewed by NRC Supervision/ Management at the Region III Office and they will correspond with you concerning any enforcement action.

C. D. Feierabend

Nuclear Regulatory Commission Inspecto