

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

REGION III

Report No. 50-282/79-18; 50-306/79-15

Docket No. 50-282; 50-306

License No. DPR-42; DPR-60

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

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

Inspection At: Prairie Island Site, Red Wing, MN

Inspection Conducted: July 1-31, 1979

Inspector: *RFW for*
C. D. Feierabend

8-22-79

Approved By: *RF Warnick*
R. F. Warnick, Chief
Reactor Projects Section 2

8-22-79

Inspection Summary

Inspection on July 1-31, 1979 (Report No. 50-282/79-18; 50-306/79-15)
Areas Inspected: Routine resident inspection of plant operations, maintenance, security, review and audit, startup testing after refueling (Unit 1), followup of licensee reported events and IE bulletins. The inspection involved 78 inspector-hours by the resident inspector.
Results: Of the seven areas inspected, no items of noncompliance or deviations were found in six areas. One item of noncompliance was found in one area (deficiency (Unit 1) - failure to adhere to controls for making changes to test procedure, paragraph 7)

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DETAILS

1. Personnel Contacted

F. Tierney, Plant Manager
J. Brokaw, Plant Superintendent, Operations and Maintenance
E. Watzl, Plant Superintendent, Plant Engineering and Radiation Protection
A. Hunstad, Staff Engineer
R. Lindsey, Superintendent, Operations
J. Nelson, Superintendent, Maintenance
J. Hoffman, Superintendent, Technical Engineering
D. Mendele, Superintendent, Operations Engineering
D. Schuelke, Superintendent, Radiation Protection
S. Fehn, Senior Scheduling Engineer
M. Sellman, Senior Nuclear Engineer
R. Conklin, Supervisor, Security and Plant Services
G. Sundberg, Instrument Engineer
G. Edon, Shift Supervisor
P. Valtakis, Shift Supervisor
D. Althaus, Shift Supervisor
J. Meath, Shift Supervisor
D. Walker, Shift Supervisor

2. General

Unit 1 was shut down on July 4, because of turbine vibrations. It was off the line for the rest of the month for repairs to the high pressure turbine. During the outage the licensee performed inspections of feedwater piping and shell type anchors in response to IFR Bulletins 79-02 and 79-13.

3. Plant Operations

The inspector reviewed plant operations including examination of selected operating logs, special orders, temporary memos, jumper and tagout logs for the month of July. Tours of the plant included walks through the various areas of the plant to observe operations and activities in progress; to inspect the status of monitoring instruments, to observe for adherence to radiation controls and fire protection rules, to check proper alignment of selected valves and equipment controls, and to review status of various alarmed annunciators with operators.

The inspector also reviewed annunciator status, recorder charts, surveillance records, and logs to verify that plant operations were maintained in accordance with Technical Specification requirements.

No items of noncompliance or deviations were identified.

4. Security

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

No items of noncompliance or deviations were identified.

5. Maintenance

The inspector observed maintenance activities in progress associated with repairs and temporary modification of the Unit 1 turbine.

No areas of concern were identified.

6. Review and Audit

The inspector attended an Operations Committee meeting on July 19, 1979. The committee completed biennial review of several surveillance procedures, preventive maintenance procedures, and section work instructions. The committee also reviewed safety evaluations associated with a scheduled natural circulation test and for operations with lower first stage turbine pressure, and approved setpoint changes for steam dump actuation to compensate for lower first stage pressure.

The inspector reviewed the minutes of the meeting and verified that they adequately described the decisions made.

7. Startup Testing Following Refueling (Unit 1)

The inspector verified that incore physics tests and control rod checks were conducted prior to or during startup and return to power. The following tests were reviewed for availability of procedures and records of test completion:

- D30 - Post Refueling Startup Testing
- D31 - Reactivity Computer Checkout
- D32 - Temperature Coefficient at Hot Zero Power
- D33 - Rodworth and Boron Worth Measurement
- D34 - Boron End Point Measurement
- D36 - Plant Heat Balance
- D51 - Temperature Coefficient at Power

The inspector also verified that surveillance tests had been completed prior to startup.

SP 1546 Control Rod System Timing
SP 1018 Analog Rod Position - Bank Counter Test
SP 1046 Full Length Control Rod Drop Timing
SP 1169 Reactor Coolant System Flow Verification

Review of the test records and results did not identify any concerns in the scope of the test program or in the results of the testing. As this core includes the first Exxon fuel the licensee will submit a startup report in accordance with Technical Specification 6.7.A.1.

The inspector observed testing in progress during routine resident inspection of plant operations in May, 1979. Activities in progress were being performed in accordance with procedures. No areas of concern were identified.

A detailed audit of completed procedures identified some procedural inconsistencies that did not appear to have any significant effect on the test program. These were being discussed with the responsible personnel and supervisors. The inspector observed that the operations committee review of the results of zero power testing prior to increasing power above 5% was not documented in minutes of a subsequent meeting. The inspector verified that a poll had been conducted by reviewing the entry in the test procedure, the nuclear engineers tabulation of results, and confirmation by interview with other operations committee members that the poll was conducted.

The audit did identify a deficiency in the areas of procedure changes and documentation of review by the Operations Committee (OC).

Several steps in test procedures were omitted as not applicable (NA) without documenting the concurrence of two individuals holding senior operator licenses (SRO's) or review by the OC and a member of plant management. An example of this was steps 4.2.8 and 4.2.10 of procedure D30, which increased reactor power to approximately 3% for flux mapping and returned power to zero for continued testing. The inspector had no concern with the technical reasons for eliminating the steps.

Failure to follow administrative controls for making temporary changes to procedures is considered to be noncompliance with Technical Specification 6.5.D.

8. Licensee Event Reports (LERs)

The inspector reviewed the following LERs submitted by the licensee, determined that reporting requirements had been met, and determined that corrective actions were being implemented. (Closed)

- a. P-RO-79-08, No. 11 SI pump failure to auto start.

A design change to add a monitor light to the SI pump control circuit has been approved by the Operations Committee.

- b. P-RO-79-13, Diesel cooling water pump tripped and locked out during trouble shooting.

- c. P-RO-79-15, Failure of power range channel.

- d. P-RO-79-16, ASME Code Section XI test not scheduled.

This was identified and reviewed during a previous inspection.^{1/}

- e. P-RO-79-18, Missed SP1187 in January 1979.

This was a weekly battery inspection that was missed because of 5 weeks in the month.

- f. P-RO-79-19, Discovery that containment purge valves not analyzed for dynamic loading.

The inspector verified that the licensee had taken action to prohibit purging except during cold shutdown. The licensee will notify NRR of resolution prior to resuming purging during normal operation.

- g. P-RO-79-21, Unit 1 loop B steam generator level transmitter observed to be responding slowly.

The inspector observed the level indication and trouble shooting activities before and after repairs had been completed.

9. IE Bulletins

- a. IEB 78-04, Environmental Qualification of Certain Stem Mounted Limit Switches Inside Containment

The inspector confirmed that the licensee had completed replacement of the limit switches in Unit 2 during the December, 1978 refueling outage and in Unit 1 during the April, 1979 refueling outage (Closed).

- b. IEB 79-01, Environmental Qualification of Class 1E Equipment

The licensee reply^{2/} describes actions taken. (Closed)

1/ IE Inspection Report No. 50-306/79-09.

2/ NSP letter to OIE dated June 12, 1979.

c. IEB 79-02, Pipe Support Base Plate Designs Using Concrete Expansion Bolts

The inspector observed areas of containment where pull testing was being performed and examined one of the two anchors that did not pass the pull test. The anchor was one of four using 7/8 inch bolts to anchor snubber number 1-SIRH-23, which pulled out at 3,000 lbs. The test for safety factor of PU/5 was to be 3770 lbs. Analysis verified that the three remaining bolts adequately anchored the snubber without considering the anchor that failed the tests. Examination of the shell anchor indicated that it had not been fully seated and expanded. Repairs consisted of replacement and retesting.

Another shell type anchor was observed to be loose on snubber 1-RCSH-81. It had not been adequately set. The total design load for this anchor was 408 lbs. Each of the four 3/4 inch anchor bolts has adequate design to hold much more than the design load for the snubber. The anchor was replaced and satisfactorily tested.

These were the only two failures of pull tests for the shell type anchors after completion of more than 450 pull tests in both units. The licensee considers this to be adequate demonstration of satisfactory installation of shell type anchors, but will perform pull tests on a sampling basis in Unit 2 containment during the next refueling outage. (Open)

10. Exit Interviews

The inspector attended exit interviews conducted by IE III regional based inspectors:

M. J. Oestmann - July 13, 1979

W. S. Little, I. N. Jackiw, F. T. Daniels - July 13, 1979

The inspector met weekly with licensee representatives and with Mr. F. Tierney at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection. One item of noncompliance was identified. This was a deficiency in failure to adhere to prescribed controls for making temporary changes to a test procedure.

Enclosures: Preliminary
Inspection Findings

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE

Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

Prairie Island 1 (Redwing, MN)
Prairie Island 2 (Redwing, MN)

2. REGIONAL OFFICE

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement, RIII
799 Roosevelt Road
Glen Ellyn, IL 60137

3. DOCKET NUMBERS
50-282; 50-306

4. LICENSE NUMBERS
DPR-42; DPR 60

5. DATE OF INSPECTION

July 1-7, 1979

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

7. The following matters are preliminary inspection findings:

**POOR
ORIGINAL**

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.

[Signature]
Nuclear Regulatory Commission Inspector

1065 032

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE

Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

Prairie Island 1 (Redwing, MN)
Prairie Island 2 (Redwing, MN)

2. REGIONAL OFFICE

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement, RIII
799 Roosevelt Road
Glen Ellyn, IL 60137

3. DOCKET NUMBERS
50-282; 50-306

4. LICENSE NUMBERS
DPR-42; DPR 60

5. DATE OF INSPECTION

July 8-14, 1979

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

7. The following matters are preliminary inspection findings:

**POOR
ORIGINAL**

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.

[Signature]
Nuclear Regulatory Commission Inspector

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE

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3. DOCKET NUMBERS
50-282; 50-306

4. LICENSE NUMBERS
DPR-42; DPR 60

5. DATE OF INSPECTION

July 15-20, 1979

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

7. The following matters are preliminary inspection findings:

POOR ORIGINAL

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. J. Fairbank
Nuclear Regulatory Commission Inspector

1065 034

PRELIMINARY INSPECTION FINDINGS

1. LICENSEE

Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401
Prairie Island 1 (Redwing, MN)
Prairie Island 2 (Redwing, MN)

2. REGIONAL OFFICE

U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement, RIII
799 Roosevelt Road
Glen Ellyn, IL 60137

3. DOCKET NUMBERS
50-282; 50-306

4. LICENSE NUMBERS
DPR-42; DPR 60

5. DATE OF INSPECTION
July 21-31, 1979

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

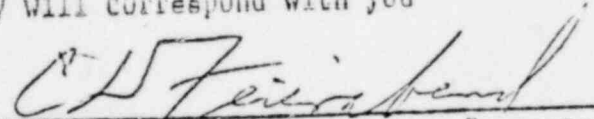
7. The following matters are preliminary inspection findings:

Technical Specification 6.5.D. requires that temporary changes to procedures which do not change the intent of the original procedure may be made with the concurrence of two individuals holding senior operator licenses and that such changes shall be documented reviewed by the Operations Committee and approved by a member of plant management designated by the Plant Manager within one month.

Contrary to the above, ~~XXXXXXXXXXXX~~ concurrence of individuals holding senior operating licenses, review by Operations Committee and approval by a member of plant management was not documented for temporary changes made to procedure D30 - Post Refueling Startup Testing on May 5, 1979.

POOR ORIGINAL

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.


Nuclear Regulatory Commission Inspector

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