

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-282/84-09(DRP); 50-306/84-08(DRP)

Docket Nos. 50-282; 50-306

Licenses No. DPR-42; DPR-60

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

Facility Name: Prairie Island Nuclear Generating Plant

Inspection At: Prairie Island Site, Red Wing, MN 55066

Inspection Conducted: June 11, 1984 - August 10, 1984

Inspectors: J. E. Hard

P. L. Hartmann

Approved: *I. N. Jackiw*
I. N. Jackiw, Chief
Reactor Projects Section 2B

8-20-84
Date

Inspection Summary

Inspection on June 11, 1984 - August 10, 1984 (Reports No. 50-282/84-09(DRP); 50-306/84-08(DRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors of plant operational safety, maintenance, surveillance, steam generator tubes, Anker-Holth snubbers, new fuel, Licensee Event Reports. The inspection involved a total of 378 inspector-hours onsite by two NRC inspectors including 46 inspector-hours onsite during off-shifts.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

- *E. Watzl, Plant Manager
- *D. Mendele, Plant Superintendent, Engineering and Radiation Protection
- R. Lindsey, Plant Superintendent, Operations and Maintenance
- A. Hunstad, Staff Engineer
- A. Smith, Senior Scheduling Engineer
- M. Balk, Superintendent, Operations
- D. Schuelke, Superintendent, Radiation Protection
- J. Nelson, Superintendent, Maintenance
- J. Hoffman, Superintendent, Technical Engineering
- *K. Albrecht, Superintendent, Quality Engineering
- M. Klee, Superintendent, Nuclear Engineering
- R. Conklin, Supervisor, Security and Services
- J. Gonyeau, Manager, Production Training
- T. Amundson, Superintendent of Training

The inspectors also talked with and interviewed other licensee employees, including members of the technical and engineering staffs, shift supervisors, reactor and auxiliary operators, QA personnel, and shift Technical Advisors.

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (50-282/81-01-01(DRP)): Storage of Supplies and Materials Not in Conformance with ANSI N45.2.2 Requirements.

The areas listed in this item were reinspected. The inspector noted that appropriate corrective actions were taken for each item.

(Closed) Open Item (50-282/81-01-08(DRP)): Care of Items During Storage, Including Shelf Life, to Prevent Damage, Deterioration or Contamination Needs to be Firmly Established.

The inspector confirmed that appropriate action has been taken in this area.

(Open) Unresolved Item (50-282/81-24-04; 50-306/81-26-04(DRMSP)): Lack of Mitigating Core Damage Course Procedure.

The inspector discussed the resolution to this item with the Superintendent of Training and the Manager of Production Training. The resolution has been identified, and the licensee is taking action to complete this item.

(Closed) Noncompliance (50-282/83-18-01(DRP)): Failure to Follow Surveillance Procedure.

The inspector verified all corrective actions taken were complete and adequate to prevent recurrence.

(Closed) Open Item (50-282/83-24-01; 50-306/83-24-01(DRP)): Hills-McCanna Actuators.

The licensee completed actions requested by Region III, and summarized these actions in a letter dated March 20, 1984 to the Regional Administrator Region III.

The inspector reviewed the licensee completed actions and determined them to adequately address the questions concerning Hills-McCanna Actuators.

(Closed) Noncompliance (50-282/84-05-02; 306/84-05-02(DRP)): No Alarm Annunciator Procedure.

The inspector reviewed the licensee response and found the action adequate. Additional discussions determined that increased attention to design change closeouts implemented by the licensee should prevent recurrence.

(Closed) Open Item (50-282/84-06-01; 50-306/84-06-01(DRP)): Referencing TS LCOs on Safety-Related WRAs

Rev. 10 to 5ACD3.2 was implemented on July 10, 1984. This revision clarifies the TS referencing requirements as follows:

- d. Tech Spec Review: Tech Spec references that are to be complied with SHALL be listed by number in Section II of the WR. If the applicable T.S. is written in detail e.g., clarification etc., it SHALL be written in its entirety. Do not take a T.S. requirement out of context.

(Closed) Open Item (50-282/84-06-02; 50-306/84-06-02(DRP)): Clarify Post-Maintenance Testing Requirements for Safety-Related Maintenance Rev. 10 to 5ACD3.2 expands and clarifies these requirements:

- e. Testing: Specific tests of systems or components SHALL be referenced or included as part of the package. These tests include:
 1. Testing to verify operability of redundant equipment.
 2. Functional testing following maintenance.
 3. Special tests.
 4. Preoperational tests following a modification.
 5. Hydro Test.
 6. Local leak rate testing.
 7. Preservice Inspection tests (See 5ACD 3.12).
 8. Etc.

Sources: Tech Specs; 10CFR50, Appendix J; ASME E & PV, Section XI; etc.

(Closed) Noncompliance (50-282/84-07-01(DRP)): Both Shield Building Doors Open.

Management actions have been taken to replace the improper procedure and to re-route station air supplies used for airlock, testing. A study has begun of 2-years' data on reportable events, SOEs, and noncompliance citations. In the longer term, the Headquarters Nuclear Group is planning and conducting an independent review of a selected scope of licensed activities.

(Open) Noncompliance (50-306/84-03-01(DRP)): Inadequate Log Keeping.

The inspector verified the licensee corrective action was adequate and should prevent recurrence. The licensee response stated the corrective action would be complete by July 20, 1984. The inspector noted the corrective action was not completed as of August 10, 1984. This isolated case of not meeting the date of completion identified in a response to noncompliance was discussed with the licensee.

3. Operational Safety Verification

a. Plant Operations

Units 1 and 2 have been base loaded at near full power throughout the inspection period. A few routine power reductions were performed for testing purposes on each unit. On August 1, 1984 Unit 2 began a power coastdown. The routine refueling outage is scheduled to begin September 3, 1984.

b. Control Room Observations

The inspector observed control room operations, reviewed applicable logs, conducted discussions with control room operators, and observed shift turnovers. The inspector verified the operability of selected emergency systems, reviewed equipment control records, and verified the proper return to service of affected components.

c. Tours

Tours of the containment, auxiliary building, turbine building and external areas of the plant were conducted to observe plant equipment conditions, including potential fire hazards, and to verify that maintenance work requests had been initiated for equipment in need of maintenance.

d. Independent Verification

The inspector performed a complete walkdown of the accessible portions of the Units 1 and 2 safety injection systems. Observations included confirmation of selected portions of the licensee's procedures, checklists, plant drawings, verification of correct valve and power

supply breaker positions to insure that plant equipment and instrumentation are properly aligned, and review of control room and local system indication to insure proper operation within prescribed limits.

No items of noncompliance or deviations were identified.

4. Surveillance Observations

The inspector witnessed portions of surveillance testing of safety-related systems and components. The inspection included verifying that the tests were scheduled and performed within Technical Specification requirements, observing that procedures were being followed by qualified operators, that Limiting Conditions for Operation (LCOs) were not violated, that system and equipment restoration was completed, and that test results were acceptable to test and Technical Specification requirements.

Portions of the following surveillances were observed/reviewed during the inspection period:

SP 1091	Containment Fan Coil Units Surveillance Test
SP 1093	D1 Diesel Generator Test (Bus 26)
SP 2093	D2 Diesel Generator Test (Bus 25)
SP 1100	12 Motor Driven Auxiliary Feedwater Pump Test
SP 2032	Safeguards Logic Test
SP 1102	11 Steam Driven Auxiliary Feedwater Pump Test
SP 1093	D1 Diesel Generator Test (Bus 15)

No items of noncompliance or deviations were identified.

5. Maintenance Observations

Station maintenance activities on safety-related systems and components listed below 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, 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.

The following maintenance activities were observed/reviewed:

- Shift Supervisor Office Modification
- D-1 Diesel Annual Inspection
- Unit 1 Boric Acid Blender Line Replacement
- 11 Steam Driven Auxiliary Feedwater Pump Governor and Trip Valve Repair
- 11 Component Cooling Heat Exchanger Preventive Maintenance

No items of noncompliance or deviations were identified.

6. Steam Generator Tubes, Unit 1

Following the Unit 1 startup in January 1984, slight primary-to-secondary leakage was detected from radiochemical analysis of steam generator blow-down and of condenser off-gas. Though the leakage rate was, and still is, more than a decade below technical specification limits, the licensee opted to re-review the steam generator tube eddy current data collected during the 100% inspection conducted in December 1983. Results of this re-evaluation were discussed in a telephone conference call on June 12, 1984 and in a licensee submittal to NRR on June 18, 1984. A safety evaluation supporting continued plant operation was included with the June 18 submittal. NRR and the licensee concluded that steps should be taken to clarify the technical specifications for this situation. On July 9, 1984, the licensee submitted a request for technical specification amendment on this subject.

7. Anker-Holth Snubbers

On June 27, 1984 the Prairie Island resident office received from RIII a copy of a Part 21 report dated June 21, 1984 from Baxter Fluidpower Group on the subject of two potentially defective Anker-Holth snubbers. (Anker-Holth Part Number 25.05620.001). The licensee investigated and the inspector verified that the two snubbers were removed in 1980 and 1981. One was installed on the A loop steam line on Unit 1 and the other in a comparable location on Unit 2.

8. New Fuel

New fuel has been received on site for the Unit 2 refueling outage scheduled to begin September 1984. The inspector observed unloading of selected shipping containers, noting presence of seals, accelerometers, cleanliness conditions and use of appropriate procedures and checklists. Discussions were also held with the Exxon inspectors assigned to observe the fuel receipt.

9. Meetings with Corporate Management

During the inspection period an enforcement conference was held in Northern States Power Corporate Headquarters July 18, 1984. The content and results of the conference are discussed in Inspection Report 50-306/84-10(DRP).

10. Licensee Event Reports (LER) Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished, or a documented schedule for implementation of corrective action has been established.

PRO-82-21 Failure of Hot Leg Loop B Sample Isolation Valve. The licensee has scheduled replacement of all containment isolation Valcor valves with Kerotest valves during the upcoming ten year inservice inspections (Unit 1 - January 1985, Unit 2 - September 1985).

The Kerotest valve components in contact with reactor coolant inventory have been designed for that application and are motor operated as contrasted with the spring operated Valcor valve.

PRO-82-09 Leak in Pipe Containing 12% Boric Acid Solution. A design change to replace the affected piping is in progress. The piping is onsite and is being fabricated for installation. The pipe installation is scheduled to be completed during each unit's ten year inservice inspection in 1985.

P-RE-1-84-2 Both Shield Building Doors Opened During Airlock Test. This event is the subject of Inspection Report No. 50-282/84-07(DRP).

P-RE-1-84-3 Caustic Addition Standpipe Below Specification. This event is discussed in Paragraph 6 of Inspection Report No. 50-282/84-04; 50-306/83-04(DRP).

P-RE-2-84-1 Both SI Suction Valves from RWST Inadvertently Opened. This event is discussed in Paragraph 3 of Inspection Report No. 50-306/84-10(DRP).

11. IE Bulletin Followup

(Re-Opened and Re-Closed) IEB 81-03: Flow Blockage of Cooling Water to Safety System Components by Corbicula and Mytilus.

No significant fouling of safety systems has occurred from either clam or mussel reproduction. Inspection for the existence of these species is performed during routing PMs on the systems which are exposed to river water.

12. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) throughout the inspection period and at the conclusion of the inspection on August 10, 1984. The inspectors summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors' findings.