

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-282/84-08(DRS); 50-306/84-07(DRS)

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 Plants Units 1 and 2

Inspection At: Red Wing, MN

Inspection Conducted: June 20 and 21, 1984

Inspectors: *W.G. Guldemond for*
P. L. Eng

6/29/84
Date

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Approved By: *W.G. Guldemond*
W. G. Guldemond, Chief
Operational Programs Section

6/29/84
Date

Inspection Summary

Inspection on June 20 and 21, 1984 (Reports No. 50-282/84-08(DRS);
50-306/84-07(DRS))

Areas Inspected: Special announced inspection of test procedures and data for the inservice testing of valves, and licensee action on previous inspection findings. The inspection involved 20 inspector-hours onsite by two inspectors including 0 inspector-hours onsite during off-shifts.

Results: Of the two areas inspected, no items of noncompliance or deviations were identified in one area. In the remaining area one item of noncompliance was identified (failure to leak test valves - Paragraph 3).

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DETAILS

1. Persons Contacted

- *G. L. Miller, Superintendent, Operations Engineering
- G. T. Lenertz, Lead Senior Production Engineer
- B. Stephens, Lead Senior Production Engineer
- R. Fraser, Production Engineer
- *A. A. Hunstad, Staff Engineer
- *D. Mendele, Plant Superintendent, Engineering and Radiation Protection

*Denotes those attending the exit interview on June 21, 1984.

Additional plant technical and administrative personnel were contacted by the inspectors during the course of the inspection.

2. Action on Previous Inspection Findings

(Closed) Deviation (306/83-20-02): Failure to Perform Test on Cooling Water Check Valve. The inspectors reviewed the position and function of Valve No. 2CL-42-1, Loop B Cooling Header Turbine Building Check Valve. The licensee determined that testing of this valve placed the plant in an undesirable condition. A relief request from the Section XI testing and inspection requirements for this valve and its counterpart in Unit I is being submitted to NRR for review. This action resolves concerns identified.

3. Test Procedures and Data for Inservice Testing of Valves

The inspectors reviewed selected procedures and data sheets for the inservice testing of valves for acceptability and compliance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 1974 edition and applicable addenda. The inspectors identified the following items:

- a. Step 10 of Surveillance Procedure #1070 (SP #1070) requires that the pressure increase in the Residual Heat Removal (RHR) system be measured to assess the combined leakage through Motor Operated Valves (MOVs) MV-32064, MV-32065, MV-32066, MV-32165 and MV-32231 into the RHR system. The ASME Code, Subsection IWV-3420 requires Category A valves to be tested and the leak rate for each valve quantified and trended. The licensee has no methodology for correlating the RHR system pressure rise with valve leak rate as required by the Code. Failure to specify a maximum permissible leak rate and to trend leak test results for each valve as required by the ASME Code is considered to be an item of noncompliance (282/84-08-01(DE)). During the course of the inspection the licensee committed to process necessary procedure changes to rectify this situation. Based on this commitment and the fact that the licensee was qualitatively assessing the leakage through the subject valves no response to this item of noncompliance is required.

- b. The licensee indicated that no formal trending of leak rates for Category A valves is currently performed. Leak rates are noted by the appropriate systems engineer; however, trending records are not kept. The licensee has agreed track valve leak rates for trending purposes as required by IWV-3420. Records of prior leak rates obtained for trending will be evaluated in a future inspection. Implementation of a trending program will be tracked an open item, (282/84-08-02(DE); 306/84-07-01(DE)).
- c. Steps 7i and 7j require valves MV-32164 and MV-32230 be manually opened such that the stem rises approximately $\frac{1}{4}$ " in order to subject valves MV-32165 and MV-32231 to RCS pressure for leak testing purposes. It was not clear to the inspectors that specifying a $\frac{1}{4}$ " stem rise is sufficient for the intended purpose. The licensee has agreed to evaluate this procedure. This is considered to be an open item (282/84-08-03(DE); 306/84-07-02(DE)).
- d. During the review of SP #1070, the inspectors noted that valve lineup verification requirements were inconsistent throughout the procedure. The licensee has agreed to review the procedure for verification consistency and revise the procedure accordingly. This is considered to be an open item (282/84-08-04(DE); 306/84-07-03(DE)).
- e. Steps 12 and 21 of SP #1070 specify a valve lineup required to quantify leakage through safety injection system isolation valves. It was not clear to the inspectors that the valve lineup specified was valid for leakage assessment in that an unmonitored leakage path into the safety injection system was permitted. The licensee has agreed to review the valve lineup for the potential of compromising the test results. This is considered to be an open item (282/84-08-05(DE); 306/84-07-04(DE)).
- f. Steps 44 and 45 of SP #1070 require only an approximate leak rate determination for valves MV-32164 and MV-32230. This does not adequately fulfill leak rate requirements for trending purposes. The licensee has agreed to modify the procedure to insure actual leak rates are obtained. This will be tracked as an open item (282/84-08-06(DE); 306/84-07-05(DE)).
- g. The licensee has been granted relief to perform leak rate testing of containment isolation valves per the requirements of Appendix J of 10 CFR 50 in lieu of leak testing per Section XI requirements. Section XI, in addition to requiring leak rate determinations, also requires that leak rates be trended. It is not clear that the granting of relief from Section XI leak rate testing also exempts the licensee from trending the valve leak rate data for containment isolation valves, which is required by IWV-3420 but not by Appendix J. The inspectors informed the licensee that this issue will be discussed with NRR. This is considered to be an unresolved item (282/84-08-07(DE); 306/84-07-06(DE)).

4. Open Items

Open items are matters which have been discussed with the licensee which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraph 3.

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 3.

6. Exit Interview

The inspectors met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection and summarized the scope and findings of the inspection. During the meeting the inspectors also brought to the attention of the licensee representatives the extremely cooperative attitude displayed by personnel contacted and the overall good cleanliness level in the plant. The licensee acknowledged the inspectors' findings.