U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-282/86004(DRS); 50-306/86004(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 Plant, Units 1 and 2

Inspection At: New Hampshire Testing Laboratories (NHTL), Laconia, NH

Inspection Conducted: February 26-27, 1986

Inspector: I. T. Yin / Ji

75/86 Date 3/4/82

Approved By: D. H. Danielson, Chief

Materials and Processes Section

Inspection Summary

Inspection on February 26-27, 1986 (Reports No. 50-282/86004(DRS);

No. 50-306/86004(DRS))

Areas Inspected: Routine, announced inspection of activities related to testing of the large capacity snubbers installed on the steam generators. The inspection involved a total of eight inspector-hours at the snubber testing laboratory by one NRC inspector.

Results: No violations or deviations were identified.

DETAILS

Persons Contacted

Northern States Power Company (NSP)

*G. D. Gore, System Engineer

Berger-Paterson Pipe Support Corporation

D. H. Russell, Manager - Services Group

New Hampshire Testing Laboratories (NHTL)

*P. B. Ellis, Manager

Flour Engineers, Incorporated (FEI)

*J. K. Khanna, Project Stress Engineer

*Denotes those attending the management exit meeting conducted on February 27, 1986.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (282/85015-03; 306/85012-03): NSP planned a testing program to confirm the steam generator snubber (SGS) control valve manifold operation principle. The NSP proposed scope of testing was submitted to RIII for review on November 20, 1985. The NRC inspector provided his comments to NSP during a telephone conference on December 10, 1985. The NHTL Procedure No. TPNHTL-36-86-0, "Test Program for Snubber Manifold System at Prairie Island Northern States Power," Revision 1, dated January 21, 1986, was resubmitted to RIII for review on January 24, 1986, and additional comments were provided to NSP during a telephone conference on January 27, 1986. The NHTL test procedure TPNHTL-36-86-0, Revision 2, dated January 30, 1986, which was used to test the control valve manifold, was forward to RIII on February 6, 1986.

The NRC inspector observed the tests conducted at NHTL. The NHTL test procedure was followed during the testing. The control valve test setups included:

- High velocity lockup and normal bleed
- Low velocity lockup and no bleed

The above two setup combinations for the four SGS surrogate snubbers represent the maximum difference in fluid flow through the manifold system between the fluid reservoir and the control valves.

As a result of discussions between NSP representatives and the NRC inspector it was agreed that additional testing (not a part of the test procedure) would provide useful information. The setup was to test the bank of SGSs with three snubbers setup for high velocity lockup and normal bleed and one snubber setup with no lockup. This test combination was to verify that the check valves in the manifold system would perform as designed. The test results showed the check valves were functioning properly.

The inspector also reviewed some of the calibration controls used to obtain the proper lockup and bleed conditions, and had no adverse comments.

Based on a review of test data and discussions with technical personnel after each test, the NRC inspector concluded that the manifold system was proven to perform in accordance with the design intent. No further RIII action is planned.

(Closed) Unresolved Item (282/85018-01; 306/85015-01): Questionable seal materials specified and installed in the SGSs. The inspector reviewed the Westinghouse Nuclear Services Integration Division letter to NSP, F&CS-RMS-177, dated October 11, 1985, "Seal Analysis," which included the Pittsburgh Testing Laboratory report, dated October 10, 1985, as an enclosure. The chemical analyses confirmed that the seal materials tested were of the types specified on the SGS drawings. Since no severe seal material deterioration was detected during the site SGS tests conducted in September 1985, and the SGSs had passed the functional tests, this issue is considered resolved.

3. Exit Interview

The Region III inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on February 27, 1986. The inspector summarized the purpose and findings of the inspection. The licensee representatives acknowledged this information. The inspector also discussed the likely informational content of the inspection report with regard to documents reviewed by the inspector during the inspection. The licensee representatives did not identify any such documents as proprietary.