



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

March 5, 1992

Docket Nos. 50-282  
and 50-306

Mr. T. M. Parker, Manager  
Nuclear Support Services  
Northern States Power Company  
414 Nicollet Mall  
Minneapolis, Minnesota 55401

Dear Mr. Parker:

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2 -  
INSERVICE TESTING PROGRAM - RELIEF REQUEST NUMBER 70 (TAC NOS.  
MB2870 AND MB2871)

By letter dated March 2, 1992, Northern States Power Company submitted Relief Request No. 70 to the Prairie Island Nuclear Generating Plant Inservice Testing (IST) Program. The relief request related to extension of the setpoint testing of the Unit 2 safety injection/residual heat removal (SI/RHR) Code Class 2 relief valve 2-SI-26-1 from once in a five year period as required in the ASME Code, Section XI, 1980 Edition, Winter 1981 Addenda, Table IWV-3510-1, to once in a ten year interval as required by OM-1-1981, "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices," as referenced by IWV-3511 of the 1986 Edition of ASME Code, Section XI.

The licensee believes it would be imprudent to test the valve during refueling outage conditions which require residual heat removal (RHR) to be in service. Testing this valve with fuel in the vessel requires removal of one train of RHR from service. With the increased awareness of the need for RHR reliability, the plant does not feel testing the set point of relief valve 2-SI-26-1 during conditions with fuel in the core is warranted. The valve could be tested when the core is off-loaded. The set point testing was performed during the last core off-load in September 1985. The next core off-load for Unit 2 is scheduled for 1995.

The NRC does have concerns relating to the potential loss of RHR and recommends increased reliability of the system when required to be in service, as evidenced by Generic Letter 87-12, "Loss of Residual Heat Removal (RHR) While the Reactor Coolant System (RCS) is Partially Filled," and Generic Letter 88-17, "Loss of Decay Heat Removal." The licensee indicated in their response to Generic Letter 87-12 that procedures for operating with the RCS in mid-loop draindown conditions require both trains of RHR to be operable.

The extension of the set point testing appears to be justified to prevent removing one train of RHR from service when fuel is in the core and to ensure availability of the system for mid-loop operations. However, the staff has determined that NRC approval of Relief Request No. 70 is not required for the reasons explained below. Therefore, the licensee may extend the testing interval as documented in Relief Request No. 70 in accordance with the

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requirements of IWV-1100, "Scope," of the 1980 Edition, Winter 1981 Addenda, of ASME Code, Section XI, and the licensee's inservice testing program established to this edition of the Code.

The 1980 Edition, Winter 1981 Addenda, of ASME Code, Section XI, identifies the scope of the rules and requirements for inservice testing of certain Code Class 1, 2, and 3 valves in light-water cooled nuclear power plants which are required to perform a specific function in shutting down a reactor to the cold shutdown condition or in mitigating the consequences of an accident. Relief valve 2-SI-26-1 does not function to shut down the reactor to a cold shutdown condition or to mitigate the consequences of an accident. The function of 2-SI-26-1 is to provide overpressure protection for the RHR heat exchanger. Neither the relief request nor the Safety Analysis identify any additional safety function for the valve, such as low-temperature overpressure protection of the RCS. Therefore, it is not within the scope of the 1980 Edition, Winter 1981 Addenda, of ASME Code, Section XI. The valve has been included in the IST program for the purposes of performing set point testing beyond the requirements of Section XI. The NRC views this as a prudent action by the licensee.

The 1986 Edition of ASME Code Section XI, approved by 10 CFR 50.55a effective May 5, 1988, expands the scope of the inservice testing program to include Code Class 1, 2, and 3 valves which provide overpressure protection as defined in OM-1-1981. Therefore, inclusion of valve 2-SI-26-1 will be required by the rules when the licensee updates the IST program for the third ten-year interval in December 1994.

In conclusion, the requested relief does not require NRC approval for implementation at the current time. It appears that the licensee has justified extension of the set point testing until the core off-load in 1995 when the requirements for set point testing of 2-SI-26-1 will be in effect for the IST program.

This completes our review of this item and TAC Numbers M82870 and M82871 will be closed.

Original signed by  
Sincerely,

Ledyard B. Marsh, Project Director  
Project Directorate III-1  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Regulatory Regulation

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Mr. T. M. Parker  
Northern States Power Company

Prairie Island Nuclear Generating  
Plant

cc:

Gerald Charnoff, Esquire  
Shaw, Pittman, Potts and Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037

Mr. E. L. Watzl, Site General Manager  
Prairie Island Nuclear Generating Plant  
Northern States Power Company  
Route 2  
Welch, Minnesota 55089

Lisa R. Tiegel  
Assistant Attorney General  
Environmental Protection Division  
Suite 200  
520 Lafayette Road  
St. Paul, Minnesota 55155

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
1719 Wakonade Drive  
East Welch, Minnesota 55089

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Mr. William Miller, Auditor  
Goodhue County Courthouse  
Red Wing, Minnesota 55066

Dr. Raymond Thron  
Director of Environmental Health  
Minneapolis Department of Health  
925 SE Delaware Street  
Minneapolis, Minnesota 55459-0040