Accession No. ML12178A557

From: Tam, Peter
Sent: Tuesday, June 26, 2012 1:58 PM
To: Loeffler, Richard A.; 'Rippy, L. Randal'; 'Kissinger, Peter W.'
Cc: Wallace, Jay; Sydnor, Christopher; Alley, David
Subject: Monticello - Draft RAI on Relief Request RR-005 (TAC ME8071)

Rick, Randy:

By letter dated February 28, 2012, Northern States Power Company - Minnesota submitted request for alternative RR-005, "Alternative Requirements for BWR Class 1 System Leakage Test Pressure Following Repair/Replacement Activities, Section XI, Division 1," (Accession No. ML12059A403). The licensee proposed to use the provisions of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Case N-795, with conditions, to perform the system leakage test and associated VT-2 examination following repair/replacement activities. Our technical review branch has developed the following information in order to complete its review:

1. The NRC staff notes that alternative pressure requirements for leak testing of bolted joints has been authorized for specific cases (e.g., see Accession No. ML12025A010), but is unaware of generic authorization for alternate leak testing pressure requirements for welded repairs. The NRC staff acknowledges that authorization of the proposed alternative for welded repairs could be supported on a case-by-case basis, but can envision cases, such as when the segment being tested is isolable and can be independently pressurized, where determination of hardship to support the relief may not be possible. In addition, the NRC staff questions whether pressurization of welded repairs to pressures less than that corresponding to 100 percent of normal operating pressure provides reasonable assurance of the structural integrity of the welded repair. Please provide justification for the generic use of the proposed alternative pressure requirement for leak testing of welded repairs and demonstrate that the structural integrity of welded repairs is ensured.

2. Please describe the methods for attaining 100% of normal operating pressure required by IWB-5221(a) in order to perform the Code-compliant system leakage test and describe the hardship or unusual difficulty associated with each.

3. Please describe the method for attaining 90% of normal operating pressure in order to perform the proposed alternative leakage test.

4. The Basis for Use of the proposed alternative states that the core decay heat during a maintenance outage is much higher than that after a refueling outage, and that the heat load is difficult to control once shutdown cooling is removed from service.

    a. What are the temperature and pressure limits for use of shutdown cooling?

    b. Given these limits, please explain why pressurization to 90 percent normal operating pressure, with a hold for up to 8 hours, is possible but pressurizing to 100 percent normal operating pressure is unusually difficult.

You may choose to accept this e-mail as transmitting a formal RAI, and formally respond to the above questions within 45 days of receipt of this e-mail. Alternatively, you may request to hold a conference call with our review staff, during which we discuss the disposition of the above draft questions and a date for formal response.

Peter S. Tam
Senior Project Manager
(for *D. C. Cook and Monticello*)
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Tel. 301-415-1451