



August 27, 2003

L-MT-03-045  
10 CFR Part 50  
Section 50.55a(a)

US Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

**MONTICELLO NUCLEAR GENERATING PLANT**  
DOCKET 50-263  
LICENSE No. DPR-22

**REQUEST FOR APPROVAL OF INSERVICE INSPECTION PROGRAM THIRD  
10-YEAR INTERVAL RELIEF REQUEST NO. 17**

Reference 1: NMC Letter to NRC, "Change to Inservice Testing Program Plan and Inservice Inspection Examination Plan 10-Year Intervals," dated January 23, 2003

Reference 2: NMC Letter to NRC, "Monticello Relief Request Number ISI No. 7 Use of 2001 Addenda for Repair/Replacement Program," dated December 6, 2002

Reference 3: NMC Letter to NRC, "Request to use Portions of Relief Request #7 as it pertains to the Work Activity on Main Steam Safety Relief Valve 'G' (TAC No. MB6897)," dated May 25, 2003

In Reference 1 the Nuclear Management Company, LLC (NMC) notified the NRC that the Monticello Nuclear Generating Plant (MNGP) Inservice Inspection (ISI) Third 10-Year Interval would expire on May 31, 2003, and that the ISI Fourth 10-Year Interval would begin on May 1, 2003, thus creating overlapping intervals. However, this correspondence did not indicate which interval would apply to the MNGP ISI Repair/Replacement Program (RRP).

Reference 2 requested NRC approval of an alternative to allow the use of the 2001 Edition of the American Society of Mechanical Engineers (ASME) Section XI code for repair and replacement activities for the Fourth 10-Year Interval of the MNGP ISI Program.

On May 24, 2003, during the startup testing following a refueling outage, one of the Main Steam Safety Relief Valves (SRV) "G" had indicated leakage, as determined by higher than nominal temperature in its discharge tailpipe. NMC decided to replace the SRV "G" topworks assembly in order to correct the leakage condition. Reference 3 requested NRC approval of Relief Request No. 7 insofar as it applies to the bolted

connections of SRV "G," in lieu of the then current MNGP RRP. The NRC granted one-time verbal relief for SRV "G" on May 25, 2003, based on their understanding that MNGP was in the ISI Fourth 10-Year Interval.

During the course of a conference call between the NRC and NMC held on May 29, 2003, it became apparent that there was a miscommunication between the NRC and NMC regarding which ISI interval the relief should be applied. Relief Request No. 7 (Reference 2) was written for the Fourth 10-Year Interval, but the Repair/Replacement activity was performed under the Third 10-Year Interval. Based on the May 25 and May 29, 2003, discussions, the NRC requested NMC provide a relief request to clearly document that the relief requested in Reference 3 was to be applied to the ISI Third 10-Year Interval for repair/replacement of a bolted connection.

Therefore, Attachment 1 to this letter contains Relief Request No. 17 for the ISI Third 10-Year Interval. This relief request documents NMC's request for NRC authorization for the performance of the proposed alternative test on a one-time basis in accordance with 10 CFR 50.55a(a)(3)(ii). NMC has determined that complying with the specified requirements would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

This letter makes no new commitments.

If you have any questions please contact John Fields (763-295-1663).



Thomas J. Palmisano  
Site Vice President, Monticello Nuclear Generating Plant  
Nuclear Management Company, LLC

CC: Regional Administrator, Region III, USNRC  
Senior Project Manager, Monticello, USNRC  
Senior Resident Inspector, Monticello, USNRC  
State of Minnesota Boiler Inspector  
Hartford Insurance

Attachment 1 - ISI Relief Request Number: 17

**Attachment 1**

**NUCLEAR MANAGEMENT COMPANY, LLC  
MONTICELLO NUCLEAR GENERATING PLANT  
DOCKET 50-263**

**ISI RELIEF REQUEST NUMBER: 17**

**2 pages follow**

## ISI RELIEF REQUEST NUMBER: 17

### COMPONENT IDENTIFICATION

Code Classes: 1  
References: IWA-5214  
Examination Category: Not Applicable  
Item Number: Not Applicable  
Description: System Leakage Pressure Test and accompanying VT-2 Examination  
Component Numbers: Main Steam Safety Relief Valve "G"

### CODE REQUIREMENT

The 1986 Edition of American Society of Mechanical Engineers (ASME) Section XI, paragraph IWA-5214(e) states:

"If only disassembly and reassembly of mechanical joints of a component are involved (e.g., bolted flange connection), a system pressure test of IWA-5211(a), (b), or (c) shall be acceptable in lieu of the system hydrostatic test of (b) above."

### BASIS FOR RELIEF

During the startup from the Monticello Nuclear Generating Plant (MNGP) Cycle 21 Refueling Outage (RFO), the "G" Main Steam Safety Relief Valve (SRV) was leaking by as indicated by high temperature in the tailpipe. MNGP decided to suspend any startup testing and replace the "topworks" on the "G" SRV. This was considered a repair/replacement and therefore the requirements of ASME Section XI applied.

The Class 1 System Leakage Test required by IWB-2500-1 Table, Category B-P had already been completed for the outage. The indicated leakage of the SRV was discovered subsequent to the Class 1 System Leakage Test and therefore, to meet the requirements as specified in IWA-5214(e), another Class 1 System Leakage Test would be required for this one mechanical connection along with a VT-2 examination. This test and examination would have required the reactor pressure vessel to be filled with coolant and the steam lines flooded to provide a water-solid condition.

Extensive valve manipulations, system lineups, and procedural controls would have been required in order to heat up and pressurize the primary system to establish the necessary test pressure during plant outage conditions. The additional valve lineups and system reconfigurations necessary to support this test would have imposed an additional challenge to the affected systems. A normal plant startup would then occur, after completion and subsequent recovery from the test procedure.

The required heat up and cool down during the performance of the pressure test would have added a thermal cycle(s) to various components within the scope of the thermal fatigue-monitoring program. Furthermore, this evolution would have placed the primary system in a condition where it was more susceptible to Low Temperature Over Pressure events.

Pursuant to 10CFR50.55a(a)(3)(ii), compliance with the specified requirements of the code noted above and 10CFR50.55a(g) would have resulted in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

### **ALTERNATIVE PROVISIONS**

Nuclear Management Company, LLC (NMC) performed an inspection of the mechanical joint of the SRV "G" topworks while starting up at 150 psig and 900 psig. This verified the structural integrity and leakage integrity of the mechanical connection without the need to fill the reactor vessel "solid", filling the main steam lines and pressurizing to 1000 psig.

In the event that leakage would occur at the mechanical joint at higher pressures associated with nominal reactor power, it would be detected by the drywell monitoring systems, which include drywell pressure monitoring, the containment atmosphere monitoring system, and the drywell floor drain sumps. Leakage monitoring is required by Monticello Technical Specifications.

### **CONCLUSION:**

In summary, the proposed NMC alternative used a pressure test at 150 psig and 900 psig, rather than the 1986 Edition of ASME Section XI, insofar as it applies to the bolted connection of SRV "G" topworks in the ISI Third 10-Year Interval, during startup from RFO 21.

Considering the hardship and unusual difficulty required for satisfying the code requirements and the ability to detect leakage in primary containment should it occur, this alternative provided an acceptable verification of the leak integrity of the mechanical joint without putting the plant through an additional thermal cycle.

### **PERIOD FOR WHICH RELIEF IS REQUESTED**

NMC requested NRC authorization to perform the proposed alternative test on a one-time basis on the SRV "G" in the Third 10-Year Interval of the ISI Program for MNGP.