NMC
Committed to Nuclear Excellence

Monticello Nuclear Generating Plant
Operated by Nuclear Management Company, LLC

January 11, 2002

10 CFR Part 50
Section 55a(a)(3)(ii)

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

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Monticello Inservice Inspection Plan Submittal of
Relief Request Number 14 for the Third Ten Year Interval

Nuclear Management Company, LLC (NMC) requests relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Division 1, Table IWC-2500-1, Category C-H, for the Monticello Nuclear Generating Plant, High Pressure Coolant Injection (HPCI) System, pursuant to 10 CFR 50.55a(a)(3)(ii).

Monticello Nuclear Generating Plant committed to use ASME Code, Section XI, 1986 Edition for the Third Ten Interval of operation from June 1, 1992 through May 31, 2002. This edition of the ASME Code states in Section IWC-5210(a) that the pressure retaining components within each system boundary shall be subjected to a system hydrostatic pressure test in accordance with IWA-5211(d) for each system or portion of systems. IWA-5211(d) states that a system hydrostatic test [shall be] conducted during a plant shutdown at a pressure above nominal operating pressure or system pressure for which overpressure protection is provided.

In lieu of this requirement NMC elected to use Code Case N-498-1, "Alternate Rules for 10-Year System Hydrostatic Testing for Class 1, 2, and 3 Systems, Section XI, Division 1," for the Monticello Nuclear Generating Plant. The NRC approved this Code Case in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1, Revision 12, dated May, 1999." The Code Case was adopted for use at Monticello by Revision 4 to the Monticello Third 10 Year Inservice Inspection Plan, which was submitted to the NRC by NMC letter dated November 28, 2001.

Monticello Nuclear Generating Plant is seeking relief from the requirements of ASME Code Case N-498-1, Requirement (b)(3), which requires the HPCI system to be pressurized to nominal operating pressure for a minimum of 4 hours for insulated systems prior to performing the VT-2 visual examination.

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The attached Relief Request provides the necessary details describing why complying with the specified requirements of this section of the ASME Code Case would result in unusual difficulty and hardship without a compensating increase in the level of quality and safety.

The following new NRC commitment is made in Relief Request 14:

> *Monticello will implement the inspection rules for 10 year hydrostatic testing per ASME Code Case N-498-1 with the following exception: A system pressure test shall be performed in accordance with ASME Section XI, IWA-5211(b) for the above subject system or portion of a system not required to operate during normal reactor operation but for which periodic system or component functional testing is performed to meet Owner's requirements. This test shall consist of performing the required VT-2 examinations in conjunction with a periodic HPCI surveillance test performed in accordance with the ASME Section XI Inservice Testing Program. The test "hold time" for normally unpressurized, insulated components shall be a minimum of 60 minutes starting when test flow and pressure requirements have been met.*

If you have any questions regarding this Relief Request please contact Doug Neve, Licensing Project Manager (Interim), at (763) 295-1353.

Jeffrey S. Forbes
Vice President
Monticello Nuclear Generating Plant

Attachment: Relief Request Number 14

cc: Regional Administrator-III, NRC
NRR Project Manager, NRC
Sr. Resident Inspector, NRC
Minnesota Department of Commerce
J Silberg, Esq.

ATTACHMENT A

Nuclear Management Company, LLC
Monticello Nuclear Generating Plant
3RD 10-Year Inservice Inspection Interval

Relief Request Number 14

Nuclear Management Company, LLC
Monticello Nuclear Generating Plant
3RD 10-Year Inservice Inspection Interval
Relief Request Number 14

I. SYSTEM/COMPONENT(S) FOR WHICH RELIEF IS REQUESTED

Code Class:	Class 2
Examination Category:	C-H
Description:	ASME Code Case N-498-1, Requirement (b)(3), which states that prior to performing the VT-2 visual examination, the system shall be pressurized to nominal operating pressure for a minimum of 4 hours for insulated systems.
Affected Components:	Insulated Class 2 pressure retaining piping and components in the High Pressure Coolant Injection (HPCI) System including, but not limited to: 1) the steam line, downstream of the HPCI steam admission valve (MO-2036) through the HPCI Turbine (S-201), up to and including Torus penetration X-221; 2) the insulated portion of the branched main process vacuum breaker line, downstream of the manual block valve (HPCI-82) in the steam exhaust line and up to and including Torus penetration X-217; 3) steam line drain lines including those attached and downstream of stop valve HO-7, up to and including Torus penetration X-222; and 4) a small section of gland seal condenser condensate pump return piping between check valve HPCI-20 and the cooling water return line.

II. CODE REQUIREMENTS

For the Third 10-Year Interval Monticello Nuclear Generating Plant committed to use ASME Section XI, 1986 Edition, which states that the pressure retaining components within each system boundary shall be subject to the system pressure test and visually examined by the method specified in Section XI, Division 1, Table IWC-2500-1 (ie., IWC-5222), Category C-H.

In lieu of these requirements Monticello has elected to use the NRC approved Code Case N-498-1, "Alternative Rules for the 10-Year System Hydrostatic Testing for Class 1, 2, and 3 Systems, Section XI, Division 1."

III. CODE REQUIREMENT FROM WHICH RELIEF IS REQUESTED

Monticello seeks relief from Code Case N-498-1 requirement (b)(3) which requires the system to be pressurized to nominal operating pressure for a minimum of 4 hours prior to VT-2 examination of insulated piping systems.

IV. BASIS FOR RELIEF

Operation of the HPCI System at the Code required pressure and temperature for the required 4 hour test condition "hold time" would result in undesirable Torus water temperature, thereby challenging compliance with Technical Specification limits and reducing suppression pool heat sink margins. Additionally, a 4 hour test would unnecessarily challenge operating personnel for a longer time than is needed to determine whether pressure boundary leakage exists in the insulated, normally unpressurized, portions of the system.

Monticello Technical Specification 3.7 states:

Specification :

A. Primary Containment.

1. Suppression Pool Volume and Temperature

When irradiated fuel is in the reactor vessel and either the reactor water temperature is greater than 212°F or work is being done which has the potential to drain the vessel, the following requirements shall be met, except as permitted by Specification 3.5.E.2:

a. Water temperature during normal operating shall be ≤90°F.

b. Water temperature during test operation which adds heat to the suppression pool shall be ≤100°F and shall not be >90°F for more than 24 hours.

c. If the suppression chamber water temperature is >110°F, the reactor shall be scrammed immediately. Power operation shall not be resumed until the pool temperature is ≤90°F.

Not only will undesirable Torus water temperatures result from operating the HPCI system for 4 hours, there will also be a decrease in maneuvering tolerances for response to an actual transient should one occur simultaneously with the performance of the test. This challenge to operating personnel, and decrease in maneuvering tolerances would be without a compensating increase in safety. The proposed one hour "hold time," as discussed below in the alternative examination section, provides an acceptable level of quality and safety to ensure pressure boundary leakage can be identified in accordance with Code requirements.

Additionally, this relief request only applies to those portions of the HPCI system that are insulated, normally unpressurized, and/or require turbine operation to be pressurized (e.g. the turbine exhaust line and steam line drains from the exhaust piping). The majority of the HPCI steam line is normally pressurized at reactor pressure. The normally pressurized lines may be inspected in conjunction with or at a time separate from this system examination.

Uninsulated piping, such as the water side piping of the HPCI system can be inspected following a hold time of 10 minutes per Code Case N-498-1. Other portions of system piping such as the steam lines upstream of the outboard isolation valve are inspected during other Code examinations.

V. PROPOSED ALTERNATIVE EXAMINATION

Monticello Nuclear Generating Plant hereby requests pursuant to 10 CFR 50, Section 50.55a(a)(3)(ii) to implement the inspection rules for 10 year hydrostatic testing per ASME Code Case N-498-1 with the following exception: A system pressure test shall be performed in accordance with ASME Section XI, IWA-5211(b) for the above subject system or portion of a system not required to operate during normal reactor operation but for which periodic system or component functional testing is performed to meet Owner's requirements. This test shall consist of performing the required VT-2 examinations in conjunction with a periodic HPCI surveillance test performed in accordance with the ASME Section XI Inservice Testing Program. The test "hold time" for normally unpressurized, insulated components shall be a minimum of 60 minutes starting when test flow and pressure requirements have been met.

Use of Code Case N-498-1 with a 60 minute "hold time" for normally unpressurized, insulated components will provide acceptable detection of any leaks in the (mostly low pressure) portion of the system which is insulated. Performing this test, in addition to other ASME Section XI examinations will not jeopardize the public health and safety.

VI. PROPOSED ALTERNATIVE DURATION

This relief request will be implemented during the third period of the 3rd Ten Year Interval.