



January 23, 2003

L-MT-03-004  
10 CFR Part 50  
Section 50.55a

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

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

**Change to Inservice Testing Program Plan and**  
**Inservice Inspection Examination Plan 10-Year Intervals**

Our letter of May 30, 2002 notified NRC that Nuclear Management Company (NMC) was extending the current Third 10-Year Intervals for the Inservice Testing (IST) Program and Inservice Inspection (ISI) Examination Plans through March 8, 2003. Letters dated November 22, 2002, and December 6, 2002, submitted the IST Program and ISI Examination Plans for the Fourth 10-Year Intervals, and those letters included requested action dates for the attendant Relief Requests. Conference calls were held between NRC (Darl Hood, et al) and NMC (Doug Neve, et al) on December 4, 2002, and January 13, 2003, to discuss implementation of the IST Program and ISI Examination Plans as well as the previously requested action dates.

As discussed during our January 13, 2003, conference call, we are modifying the 10-Year Intervals for the IST Program and ISI Examination Plans.

The IST Program Plan Third 10-Year Interval will be further extended to May 31, 2003, per the 1986 ASME Code, Section XI, IWA-2430(d). The IST Program Plan Fourth 10-Year Interval will be revised to start on June 1, 2003.

The ISI Examination Plan Third 10-Year Interval will be further extended to May 31, 2003, per the 1986 ASME Code, Section XI, IWA-2430(d). The ISI Examination Plan Fourth 10-Year Interval was revised to start on May 1, 2003, per the 1995 ASME Code with 1996 Addenda, Section XI, IWA-2430(d)(1), (2) and (4). Additionally, we have revised the Fourth 10-Year Interval ISI Examination Plan, which is attached. The revision (Revision 1) removed reference to code cases included in the Draft Regulatory Guide DG-1091, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1."

Accordingly, and based on our discussions, we request action. We are modifying our request for approval action dates as follows:

- ISI Relief Request approvals by April 11, 2003
- IST Relief Request approvals by May 16, 2003

This letter does not contain any new NRC commitments and does not modify any prior commitments.

If you have any questions regarding this letter, please contact Gary Park at 763-295-1658, or Paul Hartmann, Senior Licensing Analyst, at 763-271-5172.



David L. Wilson  
Site Vice President  
Monticello Nuclear Generating Plant

Attachment: Monticello Nuclear Generating Plant Inservice Inspection Examination Plan, Revision 1, Fourth 10-Year Interval, May 1, 2003 Through May 31, 2012

cc: Regional Administrator-III, NRC  
NRR Project Manager, NRC  
Sr. NRC Resident Inspector, NRC  
State of Minnesota Boiler Inspector  
Hartford Insurance  
J. Silberg (w/o Enclosure)

## **Attachment**

### **Monticello Nuclear Generating Plant Inservice Inspection Examination Plan Revision 1 Fourth Interval May 1, 2003 Through May 31, 2012**

Remove the following pages in the Monticello Nuclear Generating Plant Inservice Inspection Examination Plan Revision 0 and replace them with the attached Revision 1 pages as listed below. Revised pages are identified by the revision number and contain marginal lines indicating the areas of change.

#### **REMOVE**

**Title Page**

**i**

**—**

**1.2-1**

**1.2-2**

**1.2-3**

**1.2-4**

**1.3-1**

**1.3-2**

**1.4-1**

**1.4-2**

**1.4-3**

**1.4-4**

**1.4-5**

**1.4-6**

#### **INSERT**

**Title Page**

**i**

**ii new page**

**1.2-1**

**1.2-2**

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**1.2-4**

**1.3-1**

**1.3-2**

**1.4-1**

**1.4-2**

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NUCLEAR MANAGEMENT COMPANY  
MONTICELLO 4th INTERVAL

INSERVICE INSPECTION  
EXAMINATION PLAN



NUCLEAR MANAGEMENT COMPANY  
700 1st Street  
HUDSON, WISCONSIN 54106

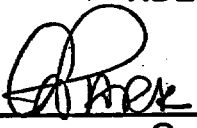
MONTICELLO NUCLEAR GENERATING PLANT  
2807 WEST HIGHWAY 75  
MONTICELLO, MINNESOTA 55362

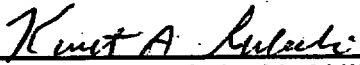
INSERVICE INSPECTION  
EXAMINATION PLAN  
REVISION 1

FOURTH INTERVAL  
MAY 1, 2003 THROUGH MAY 31, 2012

Prepared By:  1/17/2003  
Richard Deopere  
Section XI ISI Coordinator, Monticello

Reviewed By:  1/20/03  
Tom Jones  
NDE Level III

Approved By:  1/20/03  
Gary Park  
Supv, Material Inspection and Repair

ANII Review:   
Kurt Suleski, ANII  
Hartford Steam Boiler - CT

Revision 1  
1/17/03

**RECORD OF REVISIONS**

<b><u>Page</u></b>	<b><u>Rev.</u></b>
Review and Approval .....	1
i .....	1
1.1-1 .....	0
1.2-1 through 1.2-4 .....	1
1.3-1 and 1.3-2 .....	1
1.4-1 through 1.4-2 .....	1
1.5-1 through 1.5-55 .....	0
1.6-1 through 1.6-4 .....	0
1.7-1 through 1.7-3 .....	0
Inspection Schedule (Page 1 to 326) .....	0

**RECORD OF REVISIONS** (cont'd)

**Summary of Changes, Revision 1**

<b>Title Page</b>	Modified Interval start date to May 1, 2003 and noted Revision 1
<b>Page i</b>	Noted Rev. 1 for affected sections
<b>Page ii</b>	Added page for Summary of Changes, Revision 1
<b>Page 1.2-1</b>	<p>4th Ten Year Interval</p> <ul style="list-style-type: none"><li>• Updated revised 3rd Interval extension dates</li><li>• Added discussion regarding overlap of 3rd and 4th Intervals</li><li>• Changed 4<sup>th</sup> Interval start dates</li></ul> <p>Component Selection</p> <ul style="list-style-type: none"><li>• Added requirement for examination of re-used CRD Bolting</li></ul>
<b>Page 1.2-2</b>	<p>Code Edition Summary</p> <ul style="list-style-type: none"><li>• Added requirement for examination of re-used CRD Bolting</li><li>• Removed reference to NF (Supports). NF not applicable, supports are examined per Subsection IWF</li><li>• Modified Appendix VIII Section to reflect latest modification of Appendix VIII implementation per 10CFR50.55a and remove references to specific Supplements and implementation dates</li></ul>
<b>Page 1.2-3</b>	<p>Examination Personnel / Procedures</p> <ul style="list-style-type: none"><li>• clarified description of examination personnel and procedure requirements.</li><li>• Clarified to reflect additional use of Mandatory Appendix VIII requirements for UT personnel and procedures as modified by 10CFR50.55a dated September 26, 2002, except where relief has been granted.</li><li>• Removed reference to Appendix VIII – Supplements.</li></ul>
<b>Page 1.3-1</b>	Removed reference to unpublished Reg. Guide 1.147 Rev. 13 (Draft Reg. Guide 1091)
<b>Section 1.4</b>	Modified entire section to remove references to Code Cases listed as approved or conditionally approved in unpublished Draft Reg. Guide 1091, but not found in published Reg. Guide 1.147, Rev. 12.

## **INTRODUCTION**

**Background:** The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code (hereafter referred to as ASME Section XI, Section XI, or the Code), Section XI Inservice Inspection (ISI) Program is prepared and maintained by the Nuclear Management Company (NMC). The Inservice Testing Program (IST) is maintained separately from this program and is submitted under separate cover. The Repair/Replacement Program and Containment Inspection Program (as allowed by 10CFR55a(g)(6)(ii)(B)(5)) are maintained separately from this program and, although they are not submitted, they are available at the plant site for audit and review.

**4th Ten-Year Interval:** The Monticello 4th Ten-Year Inservice Inspection Interval is slightly less than 120 months due to an extension of the 3rd Interval (Letters to the NRC in May 2002 and January 2003 providing notification of 3rd Interval extension initially through March 8, 2003 (M2002057) and subsequently May 31, 2003 (no number yet assigned)). The 4th Interval will overlap the 3rd Interval as permitted by IWA-2430(d)(1),(2),(3), and (4) The 4th Interval begins May 1, 2003 and ends May 31, 2012. Six refueling and maintenance outages are currently scheduled in this time frame.

**Component Selection:** With the exception of Class 1 and 2 piping welds, components within the examination plan were selected and scheduled using criteria in the 1995 Edition of ASME Section XI with the 1996 Addenda (Inspection Program B) and 10CFR50.55a(g)(6)(ii)(A), except where relief has been requested. Per 10CFR50.55a(b)(2)(xi), the requirements of IWB-1220 in the 1989 Edition of ASME Section XI, "Components Exempt from Examination," shall be used for Class 1 piping instead of the 1995 Edition of ASME Section XI with 1996 Addenda. Per 10CFR50.55a(b)(2)(xxi)(B) reused CRD Bolting must meet examination requirements for Table IWB-2500-1, Category B-G-2, Item B7.80 of ASME Section XI 1995 Edition with 1995 Addenda.

Selection of Class 1 and Class 2 piping welds in ASME Categories B-F, B-J, C-F-1 and C-F-2 are based on EPRI Topical Report 112657 Rev. B-A, "Revised Risk Informed Inservice Inspection Evaluation Procedure." The Risk Informed Class 1 and Class 2 application was also conducted in a manner consistent with ASME Code Case N-578 "Risk Informed Requirements for Class 1, 2, and 3 Piping, Method B." The use of the RI-ISI program was approved for use on July 27, 2002. (reference TAC MB3819 and Relief Request #1 for 4th ISI Interval)

**INTRODUCTION** (cont'd)

**Code Edition Summary:** The code editions implemented in the ISI Program can be summarized as follows:

Class 1 (Quality Group A)	1995 Edition with 1996 Addenda Risk-Informed Program (Relief #1) 1989 Edition IWB-1220 (10CFR50.55a)
Class 1 CRD Bolting (B7.80)	Augmented program GE SIL. No. 483R2, 10CFR50.55a(b)(2)(xxi)(B) dated September 26, 2002 specifies 1995 Edition with 1995 Addenda
Class 2 (Quality Group B)	1995 Edition with 1996 Addenda Risk-Informed Program (Relief #1)
Class 3 (Quality Group C)	1995 Edition with 1996 Addenda
MC (Metal Containment)	1992 Edition with 1992 Addenda, Subsection IWE
Appendix VIII - Mandatory	1995 Edition with 1996 Addenda as modified by 10CFR50.55a(g)(6)(ii)(C) dated September 26, 2002

**Background for Plan/Schedule Development:** The examination plan and schedule was developed from ASME Code requirements, Risk-Informed Methodology, individual component examination history and plant scheduling needs such as optimizing insulation removal and scaffolding needs. During the 2nd Interval, a substantial number of component replacements and alterations were made (e.g. the recirculation piping replacement). The intent of the 4th Interval scheduling was to be consistent with the 2nd and 3rd Interval, subject to allowing meaningful accumulation of service time for new components. For Class 1 (category B-F and B-J) and Class 2 Category C-F-1 and C-F-2) Piping Welds examined per the RI-ISI Plan, there may be little schedule correlation with previous ISI Intervals.



## INTRODUCTION (cont'd)

**Examination Personnel / Procedures:** Inservice Inspection examination procedures and personnel certifications meet the requirements specified in the 1995 Edition of ASME Section XI with the 1996 Addenda. Additionally, UT personnel and procedures meet the requirements of Mandatory Appendix VIII as modified by 10CFR50.55a dated September 26, 2002, except where relief has been granted.

**Reporting of Associated Section XI Programs:** The Section XI Repair and Replacement Program, System Pressure Tests and Snubber Functional Tests are administered under separate program documents. Although these programs are administered separately, the activities required by the Repair and Replacement Program, System Pressure Tests and Snubber Functional Tests are reported in the "Inservice Inspection Summary Report" following each refueling outage.

**ISI Plan Overall Description:** The ASME Section XI Inservice Inspection Program is comprised of six parts: Introduction, Source Documents, Requests for Relief, ISI Boundary Drawings, ISI Isometric Drawings, and a table containing the Inservice Inspection Examination Plan and Schedule. The ISI Boundary Drawings outline Quality Group Classifications, (A, B and C). The ISI Isometric Drawings delineate ASME Section XI components or items that are included in the examination program.

The Inservice Inspection Examination Plan and Schedule lists the ASME Section XI components by Isometric Drawing Number, System, Code Category, Code Item, Component Description and Required Examination. The Examination Plan and Schedule identify the ASME Section XI Item Number listed in Tables IWB-2500-1, IWC-2500-1, IWD-2500-1 and Subsection IWF, and item number for Risk Informed Tables as identified in EPRI TR-112657, thus identifying the examination method. The examination schedule lists the anticipated period and outage for the examination of a given component. The examination schedule is intended to be flexible to allow for deviations in outage length and outage work scope. Therefore, the schedule may be changed, as allowed by the Code, without further notification. Examination distribution was developed in accordance with IWA-2432, Inspection Program B.

**INTRODUCTION** (cont'd)

The examination plan and schedule also contains certain non-code items to be examined, or examinations beyond Section XI Code requirements. These augmented items include licensee-initiated examinations on NC-7879-6/Tank and NC-ISI-37/W-1, W-2, W-3, W-4, W-12, W-12A shown in the plan and schedule. These items will be examined to the extent practical in accordance with the Section XI Code, 1995 Edition with 1996 Addenda, not the RI-ISI Program. Relief requests will not be submitted for these non-code exams if Section XI Code requirements cannot be met. Non-code exams are also subject to change without prior notification to the NRC.

The Monticello Plant was built prior to the implementation of Section XI Access Requirements. As a result, some components that require examination may not be completely accessible. Welds selected for examination under the Risk Informed Program were selected base on risk ranking, radiation area, and weld accessibility as allowed by EPRI TR-112657.

**Source Documents:**

The following referenced source documents described and listed below are basis documents used and applicable to the Monticello 4th Interval ISI Plan.

ASME BPV Code Section XI, 1992 Edition with 1992 Addenda, Subsection IWE

ASME BPV Code Section XI, 1995 Edition with 1996 Addenda

10CFR50.55a (66FR16391)

10CFR-50.55a(g)(6)(ii)(A)(64FR51370) ASME Section XI, 1995 Edition with 1996 Addenda, Appendix VIII Supplements

10CFR-50.55a(g)(6)(ii)(A)(66FR16391) ASME Section XI, 1995 Edition with 1996 Addenda, Appendix VIII Supplement 4 Length Sizing Correction

Regulatory Guide 1.150, Rev. 1 & Generic Letter 83-15

Regulatory Guide 1.147, Rev. 12, May 1999

Monticello Inservice Inspection Licensee Control Program, 4 AWI-09.04.00

GE Nuclear Services Information Letter, SIL. No. 483R2 "CRD Cap Screw Crack Indications," September 5, 1992

Generic Letter 88-01 & NUREG 0313, Rev 2 (IGSCC (M88080A, M88082A)

**\*\*Note:** All Monticello welds meet NUREG-0313, Rev. 2. Category A

NRC Letter, "Monticello Nuclear Generating Plant-Approval of Relief Request Number 8 of the Third 10 Year Inservice Inspection Program," (TAC No. M96255), November 19, 1997

NRC Letter, "MNGP-Evaluation of Relief Request No. 12 (for the 3rd 10-Year ISI Program Plan," (TAC No. MB0261), July 27, 2001

NRC Letter, "MNGP-Evaluation of Relief Request No. 13 (for the 3rd 10-Year ISI Program Plan," (TAC No. MB1833), August 22, 2001

**Source Documents:** (cont'd)

Monticello Notification Letter to NRC, "Notification of Extension of 3rd Ten-Year Inservice Testing and Inservice Inspection Intervals," May 30, 2002

NRC Letter, "MNGP-Third 10-Year Interval ISI Program Request for Relief from ASME Code, Section XI Requirements (TAC No. MB3904). (Relief Request #14 for 3rd ISI Interval), April 22, 2002

NRC Letter, "Monticello Nuclear Generating Plant – Risk-Informed Inservice Inspection Program (TAC MB3819)" (Relief Request #1 for 4th ISI Interval)

EPRI Report TR-112657, Rev B-A, "Revised Risk-Informed Inservice Inspection Evaluation Procedure," December 1999

**Section XI Code Cases:**

The following listed Code Cases are permissible for use at Monticello during the 4th Interval per Reg. Guide 1.147, Rev. 12. The examination schedule will reflect Code Case implementation on an item or category basis, as applicable.

Code Case N-307-1	Revised Ultrasonic Examination Volume for Class I Bolting, Table IWB-2500-1, Examination Category B-G-1, When the Examinations are Conducted from the End of the Bolt or Stud, or from the Center-Drilled Hole. (Applied as necessary on an item/exam basis, will be referred to in Schedule Section of Plan when/if applied)
Code Case N-460	Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division I (Applied as necessary on an item/exam basis, will be referred to in Schedule Section of Plan when/if applied)
Code Case N-498-1	Alternative Rules for 10 Year System Hydrostatic Testing for Class 1, 2, and 3 Systems. (Applicable to Class 3, Category D-B only, see Schedule Section of Plan)
Code Case N-504-1	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping. (Applied as necessary on an item/exam basis, will be referred to in Schedule Section of Plan when/if applied)
Code Case N-517	Quality Assurance Program Requirements for Owners. (Applicable)

**Section XI Code Cases:** (cont'd)

Code Case N-522	Pressure Testing of Containment Penetration Piping. (Applicable)
Condition of Use for Code Case N-522	The test should be conducted at peak calculated containment pressure and the test procedure should permit the detection and location of through wall leakage in containment isolation valves (CIV) and pipe segment between the CIVs. (Condition of Use noted)
Code Case N-537	Location of Ultrasonic Depth Sizing Flaws.
Code Case N-578*	Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B, Section XI, Division 1 (* Not approved by Reg. Guide 1.147, Rev.12, but approved by Relief Request #1 on page 1.5-2. Applied to Class 1 and 2 piping welds, Category B-F, B-J, C-F-1, and C-F-2)