



April 10, 2006

L-MT-06-029  
10 CFR Part 54

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Monticello Nuclear Generating Plant  
Docket: 50-263  
License No. DPR-22

Supplemental Information Regarding the Monticello Nuclear Generating Plant License  
Renewal Application (TAC No. MC6440)

- References:
- 1) NMC letter to NRC, "Application for Renewed Operating License," dated March 16, 2005 (ADAMS Accession No. ML050880241)
  - 2) NMC letter to NRC, "Response to Request for Additional Information and Submittal of Additional Information in Support of the Monticello License Renewal Application," dated June 10, 2005 (ADAMS Accession No. ML051680145)
  - 3) NMC letter to NRC, "Supplemental to Response to Request for Additional Information Regarding the Monticello License Renewal Application," dated October 28, 2005 (ADAMS Accession No. ML053070217)
  - 4) NMC letter to NRC, "Supplemental to Response to Requests for Additional Information Regarding the Monticello Nuclear Generating Plant License Renewal Application," dated December 16, 2005 (ADAMS Accession No. ML053550250)
  - 5) NMC letter to NRC, "Supplement to Responses to Requests for Additional Information Regarding the Monticello Nuclear Generating Plant License Renewal Application," dated February 27, 2006 (ADAMS Accession No. ML060610583)
  - 6) NMC letter to NRC, "Supplemental Information and Response to Requests for Additional Information Regarding the Monticello Nuclear Generating Plant License Renewal Application," dated March 31, 2006 (TAC No. MC6440)

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Pursuant to 10 CFR Part 54, the Nuclear Management Company, (NMC) LLC submitted a License Renewal Application (LRA) (Reference 1) to renew the operating license for the Monticello Nuclear Generating Plant (MNGP).

The purpose of this letter is to provide supplemental information regarding the NRC review of the MNGP LRA.

NMC provided responses to NRC Requests for Additional Information (RAI) regarding MNGP core plate hold-down bolts by letters dated June 10, 2005 (Reference 2), October 28, 2005 (Reference 3), and December 16, 2005 (Reference 4). Subsequent to follow-up telephone conference calls the NRC Staff, NMC was requested to provide supplemental information related to the previous RAI responses regarding core plate hold-down bolt adequacy. NMC provided a response to the NRC request by letter dated February 27, 2006 (Reference 5). NMC also provided additional information to the NRC Staff regarding the MNGP core plate hold-down bolts by letter dated March 31, 2006 (Reference 6).

Enclosure 1 provides the NMC's clarification to the MNGP LRA, Sections 4.8 and A3.6, "Stress Relaxation of Rim Holddown Bolts." These clarifications provide additional wording which summarizes the NMC responses to previous NRC RAI's regarding this subject (References 1 through 6).

This letter contains no new regulatory commitments.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on April 10, 2006.



John T. Conway  
Site Vice President, Monticello Nuclear Generating Plant  
Nuclear Management Company, LLC

Enclosure:

cc: Administrator, Region III, USNRC  
Project Manager, Monticello, USNRC  
License Renewal Project Manager, Monticello, USNRC  
Resident Inspector, Monticello, USNRC  
Minnesota Department of Commerce  
Pillsbury, Winthrop, Shaw, Pittman; LLP (David Lewis)

## ENCLOSURE 1

### Clarification of Information Regarding the Monticello Nuclear Generating Plant Core Plate Hold-Down Bolts

Nuclear Management Company, LLC (NMC) has determined that the Monticello Nuclear Generating Plant (MNGP) License Renewal Application (LRA) should be clarified to include wording which summarizes the NMC response to previous NRC Request for Additional Information (RAI's). The following LRA clarifications are being made:

#### CLARIFYING CHANGES TO THE LRA:

#### **LRA Section 4.8 Stress Relaxation of Rim Holddown Bolts**

##### **BACKGROUND**

##### **(4.8-2)**

NMC determined during discussions with the NRC Staff that the MNGP LRA should be clarified to include wording which summarizes the NMC responses to previous NRC RAIs.

#### **DESCRIPTION OF CHANGES TO LICENSE RENEWAL APPLICATION (additions are bold in brackets; deletions are strikethrough)**

#### **4.8 Stress Relaxation of Rim Holddown Bolts**

**Disposition: Revision 10 CFR 54.21(c)(1)(ii)**

~~[For the period of extended operation, the expected loss of preload was assumed to be 10%, which bounds the original BWRVIP analysis. With a loss of 10% in preload, the core plate will maintain sufficient preload to prevent sliding under both normal and accident conditions. Therefore, the loss of preload is acceptable for the period of extended operation.]~~

**For MNGP the projected loss of preload at the end of the period of extended operation is 8% based on the MNGP design and a neutron fluence of  $2.2 \times 10^{19}$  n/cm<sup>2</sup> (E > 1.0 Mev). This neutron fluence corresponds to the maximum fluence applicable to the bolts at the end of the period of extended operation, although many bolts experience lower fluence due to their specific azimuthal location. The fluence calculation was performed using methodology in accordance with the guidance provided in Regulatory Guide 1.190, Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence. The MNGP core plate rim hold-down bolt evaluation demonstrates that the mean axial and bending stresses, considering hold-down bolt stress relaxation, are bounded by the BWRVIP-25 analysis results and/or the ASME code allowable limits.]**

## ENCLOSURE 1

### LRA Section A3.6 Stress Relaxation of Rim Holddown Bolts

#### BACKGROUND

##### (4.8-2)

NMC determined during discussions with the NRC Staff that the MNGP LRA should be clarified to include wording which summarizes the NMC responses to previous NRC RAIs.

#### DESCRIPTION OF CHANGES TO LICENSE RENEWAL APPLICATION

(additions are bold in brackets; deletions are strikethrough)

### A3.6 Stress Relaxation of Rim Holddown Bolts

#### Disposition: Revision 10 CFR 54.21(c)(1)(ii)

~~[For the period of extended operation, the expected loss of preload was assumed to be 10%, which bounds the original BWRVIP analysis. With a loss of 10% in preload, the core plate will maintain sufficient preload to prevent sliding under both normal and accident conditions. Therefore, the loss of preload is acceptable for the period of extended operation.]~~

**For MNGP the projected loss of preload at the end of the period of extended operation is 8% based on the MNGP design and a neutron fluence of  $2.2 \times 10^{19}$  n/cm<sup>2</sup> (E > 1.0 Mev). This neutron fluence corresponds to the maximum fluence applicable to the bolts at the end of the period of extended operation, although many bolts experience lower fluence due to their specific azimuthal location. The fluence calculation was performed using methodology in accordance with the guidance provided in Regulatory Guide 1.190, Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence. The MNGP core plate rim hold-down bolt evaluation demonstrates that the mean axial and bending stresses, considering hold-down bolt stress relaxation, are bounded by the BWRVIP-25 analysis results and/or the ASME code allowable limits.]**