



Monticello Nuclear Generating Plant  
2807 W County Road 75  
Monticello, MN 55362

December 20, 2010

L-MT-10-075  
10 CFR 50.46(a)(3)

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

Monticello Nuclear Generating Plant  
Docket 50-263  
Renewed Facility Operating License No. DPR-22

Subject: 2010 Report of Changes and Errors in ECCS Evaluation Models

- References:
- 1) GE Report, NEDC-32514P, Revision 1, "Monticello SAFER/GESTR LOCA Loss of Coolant Accident Analysis," dated October 1997.
  - 2) GE Report, GE-NE-J1103878-09-02P, "Monticello ECCS-LOCA Evaluation for GE14," dated August 2001.
  - 3) NSPM to NRC letter, "2009 Report of Changes and Errors in ECCS Evaluation Models," (L-MT-09-115), dated December 22, 2009.

Pursuant to 10 CFR 50.46(a)(3), the Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy, is providing the annual report of changes or errors identified in the Emergency Core Cooling System (ECCS) evaluation models or application for the Monticello Nuclear Generating Plant (MNGP). This report is for the period between July 2009 and July 2010.

The MNGP Loss of Coolant Accident (LOCA) analyses of record are contained in General Electric (GE) reports submitted for the MNGP rerate (Reference 1) and the LOCA analysis for the GE14 fuel type (Reference 2). The current operating cycle (Monticello Cycle 25) core loading consists of only the GE14 fuel design type.

During the period covered, no notifications of any changes or errors resulting in a change to the calculated Peak Clad Temperature (PCT) were received from GE. Therefore, the licensing basis PCTs and the PCT Summary provided in Table 1 of Enclosure 1 is unchanged from the last annual report (Reference 3).

The current adjusted licensing basis PCTs for the fuel types that were used at MNGP during the report period are:

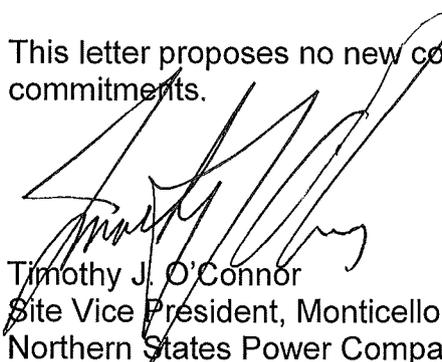
| <u>Fuel Type</u> | <u>Licensing Basis PCT (°F)</u> |
|------------------|---------------------------------|
| GE14             | <1975                           |

Enclosure 1 provides an updated summary table of the applicable changes and errors in the LOCA analyses from when the last analyses of record were performed.

If you have any questions or require additional information, please contact Mr. Richard Loeffler at (763) 295-1247.

Summary of Commitments

This letter proposes no new commitments and does not revise any existing commitments.



Timothy J. O'Connor  
Site Vice President, Monticello Nuclear Generating Plant  
Northern States Power Company – Minnesota

Enclosure

cc: Regional Administrator, Region III, USNRC  
Project Manager, Monticello Nuclear Generating Plant, USNRC  
Resident Inspector, Monticello Nuclear Generating Plant, USNRC

**ENCLOSURE 1**

**MONTICELLO NUCLEAR GENERATING PLANT**

**TABLE 1 – SUMMARY OF MONTICELLO LOCA CHANGES AND ERRORS  
INVOLVING CHANGES IN PEAK CLADDING TEMPERATURE (PCT)**

**TABLE 1 – SUMMARY OF MONTICELLO LOCA CHANGES AND ERRORS INVOLVING CHANGES IN PEAK CLADDING TEMPERATURE (PCT)**

| Applicable Analysis or Error Description  | Ref. | Licensing Basis PCT(°F) GE14 |
|---|------|------------------------------|
| NEDC-32514P, Rev 1, Monticello SAFER/GESTR-LOCA Loss of Coolant Accident Analysis   | 1    | ----                         |
| GE-NE-J1103878-09-02P, Monticello ECCS-LOCA Evaluation for GE14   | 2    | <1960                        |
| Impact of SAFER Level/Volume Table Error on PCT (Notification Letter 2003-01)<br>Level and volume tables used by SAFER were not updated when a revised initial water level was implemented.   | 3    | - 15                         |
| Impact of Top Peaked Power Shape for Small Break LOCA Analysis (Notification Letter 2006-01)<br>Small Break LOCA analyses had assumed a mid-peaked axial power shape consistent with the DBA break analysis. It was determined that a top-peaked axial power shape can result in higher calculated PCT. | 4    | +30                          |
| Sum of absolute value of changes during the current reporting period.   |      | 0                            |
| Sum of absolute value of changes since last AOR.  |      | 45                           |
| Algebraic sum of changes during the current reporting period.   |      | 0                            |
| Algebraic sum of changes since last AOR.  |      | +15                          |
| <b>Current Adjusted Peak Cladding Temperature</b>   |      | <1975                        |

**References**

1. GE Report: NEDC-32514P, Revision 1, "Monticello SAFER/GESTR - LOCA Loss-of-Coolant Accident Analysis," dated October 1997.
2. GE-NE-J1103878-09-02P, Monticello ECCS-LOCA Evaluation for GE14," dated August 2001.
3. 10 CFR 50.46 Notification Letter 2003-01, "Impact of SAFER Level/Volume Table Error on the Peak Clad Temperature (PCT)," dated May 6, 2003.
4. 10 CFR 50.46 Notification Letter 2006-01, "Impact of Top Peaked Power Shape for Small Break LOCA Analysis," dated July 28, 2006.