



December 30, 2008

L-MT-08-081  
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

2008 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," GE Proprietary Information, dated August 2001.
  - 3) NMC to NRC letter, "2007 Report of Changes and Errors in ECCS Evaluation Models," (L-MT-07-094), dated December 27, 2007.

Pursuant to 10 CFR 50.46(a)(3), Northern States Power Company – a Minnesota corporation (NSPM), is providing the annual report of changes or errors identified in the Emergency Core Cooling System evaluation models or their application for the Monticello Nuclear Generating Plant (MNGP). This report is for the period between July 2007 and July 2008.

The MNGP Loss of Coolant Accident (LOCA) analyses of record are contained in General Electric (GE) reports submitted for the MNGP re-rate (Reference 1) and the LOCA analysis for the GE14 fuel type (Reference 2). One GE fuel type has been in use over this time period, the GE14 fuel type. The current operating cycle (MNGP Cycle 24) core loading consists of only the GE14 fuel design type.

During the period covered, no notification of a change or error resulting in a change to the calculated Peak Clad Temperature (PCT) was received from GE for the fuel design type. Therefore, the licensing basis PCT and the PCT Summary provided in Table 1 of the enclosure is unchanged from the last annual report (Reference 3) except that the GE11 fuel design has been removed from the table, since it is no longer resident in the core.

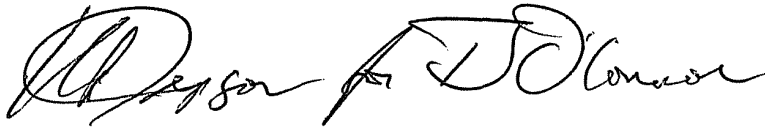
The current adjusted licensing basis PCT for the fuel type that was used at the MNGP during the period covered by this report is:

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

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

Summary of Commitments

No new commitments or changes to any existing commitments are proposed by this letter.



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

Enclosure

cc: Administrator, Region III, USNRC  
Project Manager, Monticello, USNRC  
Resident Inspector, Monticello, USNRC  
Minnesota Department of Commerce

## ENCLOSURE 1

**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
Monticello Loss of Coolant Accident (LOCA) Analyses of Record (AOR):		
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) 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) 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>		<b>&lt;1975</b>

### References

1. GE Report: NEDC-32514P, Revision 1, "Monticello SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis," Dated October 1997. (This report is Exhibit G of Revision 1 to License Amendment Request Dated July 26, 1996, Supporting Monticello Nuclear Generating Plant Power Rerate Request Program.)
2. GE Report: GE-NE-J1103878-09-02P, "Monticello ECCS-LOCA Evaluation for GE14," GE Proprietary Information, 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)," GE Proprietary Information, dated May 6, 2003.
4. 10 CFR 50.46 Notification Letter 2006-01, "Impact of Top Peaked Power Shape for Small Break LOCA Analysis," GE Proprietary Information, dated July 28, 2006.