NMC
Committed to Nuclear Excellence

Monticello Nuclear Generating Plant
Operated by Nuclear Management Company, LLC

July 9, 2002

10CFR 50.46
(a)(3)(ii)

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

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

Report of Error in Emergency Core Cooling System (ECCS) Evaluation Model

Reference 1: Nuclear Management Company (NMC) letter to US Nuclear Regulatory Commission (NRC), "2001 Report of Changes and Errors in ECCS Evaluation Models", dated December 17, 2001

Reference 2: General Electric (GE) 10 CFR 50.46 Notification Letter 2002-01, "SAFER Core Spray Injection Elevation Error", GE Proprietary Information, dated June 13, 2002

Reference 3: GE 10 CFR 50.46 Notification Letter 2002-02, "Impact of SAFER Bulk Water Level Error on the Peak Clad Temperature (PCT)", GE Proprietary Information, dated June 13, 2002

Reference 4: GE Report: NEDC-32514P, Revision 1, "Monticello SAFER/GESTR-LOCA Loss of Coolant Accident Analysis" dated October 1997 (This Proprietary Information Report is Exhibit G of Revision 1 to License Amendment Request dated July 26, 1996, Supporting Monticello Nuclear Generating Plant Power Rerate Request Program)

Reference 5: GE Report: GE-NE-J1103878-09-02P, "Monticello ECCS-LOCA Evaluation for GE14", DRFJ11-03878-09, GE Proprietary Information, August 2001

Pursuant to 10 CFR 50.46(a)(3)(ii), the following is a 30 day report of a significant error in the Emergency Core Cooling System (ECCS) evaluation model. No schedule for compliance with 10 CFR 50.46 requirements is necessary. Monticello remains in compliance with 10 CFR 50.46 requirements after compensating for this error in the ECCS evaluation model.

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NMC received two 10 CFR 50.46 Notification Letters on June 13, 2002 regarding fuel that is currently in use at Monticello (references 2 and 3).

General Electric (GE)/Global Nuclear Fuels (GNF) Proprietary Information 10CFR 50.46 Notification Letter 2002-01, SAFER Core Spray Injection Elevation Error, dated June 13, 2002 discussed an error in the automation code that prepares input basedecks for the SAFER analysis. This error results in too low a value being calculated for the core spray injection for the lower core spray sparger. Raising the injection elevation may increase the inventory held up in the upper plenum that could delay the reflooding of the core and raise the Peak Cladding Temperature (PCT). GE/GNF reported that the GE11 fuel type at Monticello requires a +60°F adjustment in LBPCT. GE14 fuel was unaffected by this error.

GE/GNF Proprietary Information 10 CFR 50.46 Notification Letter 2002-02, Impact of SAFER Bulk Water Level Error on the PCT, dated June 13, 2002, discussed the impact of a SAFER Bulk Water Level Error in the PCT analysis. The initial vessel water level used in some SAFE/REFLOOD and SAFER LOCA analyses did not properly account for the effect of the steam dryer pressure drop on the initial inventory of water in the reactor vessel. GE/GNF reported that Monticello was not affected by this error.

The new estimated Licensing Basis Peak Cladding Temperature (LBPCT) is listed as Table 1. These values include all adjustments from the two notification letters and all previous notifications dating back to the analysis of record (references 4 and 5). The maximum allowable limit for LBPCT is 2200°F.

Table 1
Monticello LBPCT

Fuel Type	Licensing PCT (°F)
GE11	2152
GE12	see note below
GE14	< 1960

NOTE:
As described in Reference [1], the GE12 lead use assemblies are bounded by the GE11 LOCA analysis for the following reasons.

A. The GE12 design has a greater number of fuel rods, resulting in initial temperatures and stored energy lower than the GE11 assemblies.
B. The GE12 fuel has a greater heat transfer area than the GE11 fuel, which improves the heat transfer characteristics during a LOCA.
C. The GE12 assemblies are specifically designed to have a lower linear heat generation rates than the coresident GE 11 fuel.

This letter contains no new commitments nor does it modify any previous commitments.

Please contact Paul Hartmann at 763-271-5172 with any questions regarding this matter.

Jeffrey S. Forbes
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Monticello Nuclear Generating Plant

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