August 4, 2008

Mr. Timothy J. O'Connor
Site Vice President
Monticello Nuclear Generating Plant
Nuclear Management Company, LLC
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT - ACKNOWLEDGMENT OF NUCLEAR MANAGEMENT COMPANY'S LETTER OF JULY 28, 2008, TO CORRECT THE RECORDS FOR AMENDMENT NO. 34, DATED APRIL 14, 1978

Dear Mr. O'Connor:

By letter dated July 28, 2008, Mr. Bradley J. Sawatzke of Nuclear Management Company (NMC) submitted a letter to correct the records that supported Amendment No. 34, dated April 14, 1978. This amendment approved the licensee to increase the spent fuel pool storage capacity from 740 to 2237 fuel assemblies by installation of high-density fuel storage racks containing neutron absorbing material. In the safety evaluation (SE) supporting Amendment No. 34, the Nuclear Regulatory Commission (NRC) staff acknowledged that the licensee has re-evaluated the fuel pool structural capacity for the high density fuel storage system and has shown that the existing structure is capable of supporting the increased load.

NMC recently discovered that an administrative error was made such that, while the spent fuel pool floor slab was analyzed as a two-way slab, submittals to NRC inadvertently mislabeled the floor slab as having been analyzed as a one-way slab. NMC reviewed site documents and confirmed that indeed a two-way slab approach was used. Accordingly, by the July 28, 2008, letter, NMC corrected the records by revising statements the licensee made in letters to NRC dated January 30 and March 16, 1978. NMC also provided draft change pages to the Monticello Updated Safety Analysis Report (USAR) to reflect correction of the subject error. The NRC staff expects the licensee to incorporate the changes into the USAR according to the schedule specified by 10 CFR 50.71(e).

The NRC staff accepts NMC's correction of the records. The NRC staff revisited the SE issued to support Amendment No. 34 and found that, of the whole SE, only one paragraph on page 3 refers to structural analysis. This paragraph did not provide specific reference to one-way or two-way slab. Since the NRC staff had evaluated the licensee's mislabeled but correct information in 1978, and since the SE did not specifically mention the mislabeled approach by name, the NRC staff concludes that there is no need to correct the SE. However, the NRC staff determines that a footnote can be added to the paragraph on page 3 to acknowledge that the licensee had corrected the record (see revised page 3 enclosed).

This completes the NRC staff's efforts on the licensee's July 28, 2008, letter.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure:
As stated

cc w/encl: See next page

This completes the NRC staff's efforts on the licensee's July 28, 2008, letter.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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The module design, material, and fabrication are in accordance with the requirements set forth in Section III, Subsection NF of the ASME Boiler and Pressure Vessel Code. The modules are designed to remain within Code allowed stress limits for both Operating Basis Earthquake (OBE) and Safe Shutdown Earthquake (SSE) conditions. The modules were analyzed as cantilever beams attached to a rigid base using qualified computer codes to derive loads in a water filled rectangular pool. These loads were derived for horizontal and vertical accelerations specified in the General Electric BWR Systems Department seismic criteria document and were compared to the allowable stresses. The analysis indicates that the derived loads do not overstress the modules since the Monticello accelerations at the fuel pool elevation are O.2g (SSE) and the analysis was performed for 3g (SSE). Added damping due to fluid effects was conservatively neglected. Stresses due to seismic loading in the three orthogonal directions were combined by the Square Root of the Sum of the Squares Method as outlined in Regulatory Guide 1.92.

The module design is free-standing, transferring shear forces to the pool slab through friction resistance provided by the normal force of the weight of the module through the support columns resting on the pool floor liner. NSP has used a minimum value for the coefficient of friction in the sliding analysis, a value which was verified by recent tests of stainless steel materials. The coefficient of friction used was sufficient to ensure that sliding will not occur for earthquake motions corresponding to OBE and SSE. An additional nonlinear analysis for sliding was performed to determine relative displacements if the coefficient of friction were less than the minimum value used. This analysis gives added assurance that there should be no interaction between modules as a consequence of the SSE.

The NSP has re-evaluated the fuel pool structural capacity for the High Density Fuel Storage System and has shown that the existing structure is capable of supporting the increased load.*

Since the possibility of long term storage of spent fuel exists, we are investigating the effects of the pool environment on the modules, fuel cladding and pool liner. Based upon our preliminary review and previous operating experience, we have concluded that at the pool temperature and the quality of the demineralized water, and taking no credit for inservice inspection, there is reasonable assurance that no significant corrosion of the modules, the fuel cladding or the pool liner will occur over the lifetime of the plant. However, if the results of the current generic review indicate that additional protective measures are warranted to protect the modules, the fuel cladding and/or the liner from the effects of corrosion, the necessary steps and/or inspection programs will be required to assure that an acceptable level of safety is maintained. Any conceivable problems which could be uncovered are of a long term nature and warrant no need for immediate concern.

*By letter dated July 28, 2008, the licensee corrected its submittals dated January 30 and March 16, 1978, stating that a two-way slab analysis was actually done, rather than the one-way slab analysis that was mistakenly stated in these submittals. The NRC staff recognizes that, despite the mislabeling, the technical information submitted was indeed that which was analyzed by the licensee, was recorded in site documents, and that the NRC staff had made its conclusion on such technical information. Accordingly, there is no need to revise the conclusion made in this paragraph. This supplemented page is issued solely to acknowledge the licensee's correction of the records.

Supplemented by letter of 8/ 4 /2008

Monticello Nuclear Generating Plant

cc:

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