



September 15, 2005

**PROPRIETARY INFORMATION ENCLOSED**

Pursuant to 10 CFR 2.390, withhold the proprietary compact disc for the calculations listed in Enclosure 10 from public disclosure. Upon separation of the proprietary CD, the remainder of this letter may be decontrolled.

L-MT-05-093  
10 CFR 50.90  
10 CFR 50.67  
10 CFR 50.12

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

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

License Amendment Request - Full Scope Application of an Alternative Source Term

Pursuant to 10 CFR 50.90, 10 CFR 50.67 and 10 CFR 50.12 Nuclear Management Company, LLC (NMC) hereby proposes to amend Appendix A of Facility Operating License, DPR-22, Technical Specifications, by incorporating a revision to the licensing basis of the Monticello Nuclear Generating Plant (MNGP). This submittal supports a full scope application of an Alternative Source Term (AST) methodology. Associated, proposed Technical Specification (TS) changes, which are supported by the AST analyses, are included in this application for a license amendment. In addition, NMC is requesting a specific exemption from 10 CFR 50.54(o) and the requirements of Sections III.A and III.B of 10 CFR 50, Appendix J, Option B, for MNGP.

10 CFR 50.67, "Accident Source Term," provides a mechanism for currently licensed nuclear power reactors to replace the traditional source term used in design basis accident analyses with an alternative source term. Under this provision, licensees who seek to revise the accident source term in design basis radiological consequence analyses must apply for a license amendment under 10 CFR 50.90.

By letter dated April 29, 2004, as supplemented by letters dated November 23, 2004, January 20, January 31, February 28 and April 12, 2005, NMC requested a license amendment for MNGP to support a Selective Scope Application of an Alternative Source Term Methodology for Re-evaluation of the Fuel Handling Accident. This submittal for a Full Scope AST assumes the approval of the previous MNGP license amendment request, therefore the changes associated with the previous submittal were not included in this submittal. However, several of the input criteria associated with the previous submittal have been re-evaluated for this submittal (See Enclosure 3).

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The Full Scope AST analyses were performed by NMC in accordance with the guidance in Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," July 2000. NMC performed AST analyses for the design basis accidents that could potentially result in significant control room and offsite doses. These include the Loss of Coolant Accident, the Main Steam Line Break Accident, Fuel Handling Accident and the Control Rod Drop Accident. The analyses demonstrate that using AST methodologies, post-accident control room and offsite doses remain below 10 CFR 50.67 and Regulatory Guide 1.183 acceptance limits.

NMC proposes implementation of this proposed change through a change to the MNGP licensing basis, including the TS and associated Bases. Upon approval, conforming changes will be made to the MNGP Updated Safety Analysis Report (USAR) and submitted to the NRC staff in accordance with 10 CFR 50.71(e) as part of the regular USAR update process.

The use of an AST results in changes to the design basis accident radiological consequences; however, the AST methodology has no direct impact on the probability or initiation of the evaluated design basis accidents. Application of AST methodology and the other changes requested by this application for a license amendment do not increase the core damage frequency or the large early release frequency. Therefore, this request for a revision to MNGP's licensing basis is not being submitted as a "risk-informed licensing action," as defined by Regulatory Guide 1.174, "An Approach For Using Probabilistic Risk Assessment In Risk-Informed Decisions On Plant-Specific Changes To The Licensing Basis," Revision 1, 2002.

By letter dated June 29, 2005, NMC submitted a License Amendment Request (LAR) converting MNGP custom TS to Improved Technical Specifications (ITS) (ADAMS Accession No. ML051960175). Upon approval of the ITS LAR, NMC will provide a supplemental submittal updating this AST LAR with revised marked-up and retyped ITS pages.

Enclosure 1 contains a description and summary safety assessment of each proposed TS change. Enclosure 2 contains a request for a regulatory exemption that NMC requests the NRC staff grant concurrently with the license amendment. Enclosure 3 contains the AST Technical Analysis for MNGP, which was used in the development of this submittal. Enclosure 4 contains a Table of Commitments made in this Submittal. Enclosure 5 provides a comparison of the MNGP AST analysis assumptions with Regulatory Guide 1.183. Enclosure 6 contains the marked-up Technical Specification pages. Enclosure 7 contains the page change instructions and the retyped Technical Specification pages. Enclosure 8 contains the marked-up Technical Specification Bases pages (provided for information only). Enclosure 9 contains the Non-Proprietary version of the calculations that support the Safety Assessment and Technical Analysis. Enclosure 10 provides the Proprietary version of the calculations provided by Applied Analysis Corp. The calculations in Enclosure 10 are clearly marked as Proprietary and should be withheld from public disclosure in accordance with 10 CFR 2.390. Applied Analysis Corp. affidavit for proprietary information is also contained within Enclosure 10.

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The Technical Support Center (TSC) project is ongoing at the time of this submittal with a resolution tentatively scheduled for 2006. Therefore, a TSC 30-day dose analysis is not being provided with this transmittal, but the analysis results will be reported after project completion.

The MNGP Plant Operations Review Committee has reviewed this application. A copy of this submittal, along with the Determination of No Significant Hazards Consideration, is being forwarded to our appointed state official pursuant to 10 CFR 50.91(b)(1).

Nuclear Management Company, LLC requests approval of the amendment by January 4, 2007, to support the currently scheduled March 2007 Refueling Outage. Once approved the amendment will be implemented within 60 days.

NMC has concluded, as described in Section 5 of Enclosure 1, that the proposed license amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and that pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Commitments provided by this letter are included in Enclosure 4.0.

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

Executed on September 15, 2005.



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

Enclosures (10)

cc: Administrator, Region III, USNRC (w/o Enclosure 10)  
Project Manager, Monticello, USNRC  
Resident Inspector, Monticello, USNRC (w/o Enclosure 10)  
Minnesota Department of Commerce (w/o Enclosure 10)

## ATTACHMENT

### **Subject**

Enclosed is NMC's License Amendment Request for the Monticello Nuclear Generating Plant's Application of an Alternative Source Term.

### **Request to Withhold from Public Disclosure**

The files on Disk 2 titled "(Proprietary) MNGP AST Calculation," contain proprietary information and NMC requests that the information contained on this disk be withheld from public disclosure.

### **Contact**

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### **Documents Components:**

A total of two (2) CD-ROMs are included in this submittal. The CD-ROMs contain the information listed below:

CD (1) titled, "License Amendment Request for Alternative Source Term," including the scanned cover letter, complete MNGP application, and Non-Proprietary Calculations. The following file in Adobe® PDF format is provided on the CD:

- 001 MNGP AST LAR.pdf, approximately 4 MB

CD (2) titled, "(Proprietary) MNGP AST Calculations" which includes Enclosure 10 with proprietary versions of six calculations. The following file and folders are provided on the CD:

- 001 AST FSA Enclosure 10.pdf, approximately 0.4 MB
- 002 CA-04-036 R1 (OS XQ, Proprietary) – Complete calculation with functional attachments. Contains approximately 10.5 MB (88

files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with PAVAN computer program use including text files, spreadsheets, and signature pages).

- 003 CA-04-037 R2 (CR XQ, Proprietary) – Complete calculation with functional attachments. Contains approximately 6.2 MB (88 files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with PAVAN and ARCON96 computer program use including text files, spreadsheets, and signature pages).
- 004 CA-04-038 R0 (LOCA, Proprietary) – Complete calculation with functional attachments. Contains approximately 4.3 MB (46 files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with RADTRAD computer program use including text files, spreadsheets, and signature pages).
- 005 CA-04-039 R0 (MSLBA, Proprietary) – Complete calculation with functional attachments. Contains approximately 2.4 MB (81 files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with RADTRAD computer program use including text files, spreadsheets, and signature pages).
- 006 CA-04-040 R0 (CRDA, Proprietary) – Complete calculation with functional attachments. Contains approximately 2.5 MB (63 files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with RADTRAD and MicroShield computer program use including text files, spreadsheets, and signature pages).
- 007 CA-04-041 R1 (FHA, Proprietary) – Complete calculation with functional attachments. Contains approximately 2.1 MB (43 files), including one document (full calculation text) as well as non-document content (calculation attachments primarily associated with RADTRAD computer program use including text files, spreadsheets, and signature pages).