

September 16, 2005

Mr. John T. Conway
Site Vice President
Nuclear Management Company, LLC
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
MONTICELLO NUCLEAR GENERATING PLANT LICENSE RENEWAL
APPLICATION (TAC NO. MC6440)

Dear Mr. Conway:

By letter dated March 16, 2005, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54) to renew the operating license for the Monticello Nuclear Generating Plant (MNGP), for review by the U.S. Nuclear Regulatory Commission (NRC). The NRC staff is reviewing the information contained in the license renewal application (LRA) and has identified, in the enclosure, areas where additional information is needed to complete the review.

These questions were discussed with your staff, Mr. Patrick Burke, and a mutually agreeable date for this response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-3777 or e-mail DXM2@nrc.gov.

Sincerely,

/RA/

Daniel J. Merzke, Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No.: 50-263

Enclosure: As stated

cc w/encls: See next page

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Dear Mr. Conway:

By letter dated March 16, 2005, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54) to renew the operating license for the Monticello Nuclear Generating Plant (MNGP), for review by the U.S. Nuclear Regulatory Commission (NRC). The NRC staff is reviewing the information contained in the license renewal application (LRA) and has identified, in the enclosure, areas where additional information is needed to complete the review.

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Daniel J. Merzke, Project Manager
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Adams Accession No.: **ML052620629**

Document Name: E:\Filenet\ML052620609.wpd

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Monticello Nuclear Generating Plant

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Monticello Nuclear Generating Plant

- 2 -

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DISTRIBUTION: Ltr to J. Conway, re: RAI for Monticello LRA, Dated: September 16, 2005

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**MONTICELLO NUCLEAR GENERATING PLANT
LICENSE RENEWAL APPLICATION (LRA)
REQUEST FOR ADDITIONAL INFORMATION (RAI)**

RAI 2.3.3.1-1

License renewal (LR) Drawing LR-36049-10 at location B-8 and C-8 shows the nitrogen supply bottles as being within the scope of license renewal. However, these nitrogen supply bottles are not listed in LRA Table 2.3.3-1 as a component type subject to an aging management review (AMR). These nitrogen supply bottles provide a pressure boundary intended function and are passive and long-lived. Clarify whether these nitrogen supply bottles are included with another component type (i.e. tanks). If not, justify why they are not listed in Table 2.3.3-1, or update the table to include these components.

RAI 2.3.3.6-1

The Diesel Generator System (DGN) includes a diesel oil (DOL) subsystem which stores and supplies diesel fuel oil for the operation of the plant diesel generators, diesel fire pump, and heating boiler. The DOL subsystem (with the exception of portions of the DOL subsystem, such as the heating boiler oil storage tank and its associated day tank) is safety-related and is within the scope of LR. However, LR Drawing LR-36051, sheet 1 shows the truck fill connection at location B-5 and the diesel oil receiving tank (T-83) system (including pump, piping, etc.) at location A-7 as not within the scope of LR. Clarify that these components are within the scope of LR and subject to an AMR in accordance with the applicable requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a), respectively, or justify their exclusion.

RAI 2.3.3.10-1

LR Drawing LR-36256 at location D-2 shows the adjustable weir and associated connecting surfaces to the south skimmer surge tank, T-48B, to be within the scope of LR. LR Drawing LR-36256 at location D-4 shows similar components, adjustable weir and connecting surfaces to the north skimmer surge tank, T-48A, as not within scope of LR. Justify why Drawing LR-36256 classifies similar components, adjustable weirs and connecting surfaces to the north and south skimmer surge tanks, T-48A and T-48B, differently with regard to the scope of license renewal.

RAI 2.3.3.10-2

As shown on LR Drawing LR-36256 at location D-4, diffusers A and B serve as a distribution point for returning cooling water for the fuel pool cooling (FPC) system to the fuel storage pool. Their failure could affect the capability of safety-related systems, structures and components (SSCs) to perform their safety function. Justify why these diffusers are not within the scope for LR.

RAI 2.3.3.10-3

LR Drawing LR-36256 shows an unisolable pipe (FPW17B-3"-MR) between the fuel storage pool and the skimmer surge tank T-48B as not within the scope of LR. All other piping and components entering the skimmer tank within the same apparent area of the plant are shown as within the scope of LR. Failure of this unisolable section of pipe could have an effect on the intended LR pressure boundary function for the skimmer tank. Justify why this pipe is not within the scope of LR.

Enclosure

RAI 2.3.3.13-1

The following cases represent unisolable piping that is defined as not within the scope of LR; however, the piping is attached or interfaces with components that are defined as within the scope of LR and provide a pressure boundary function. Failure of these out-of-scope components could adversely impact the intended pressure boundary function of the components within scope. Justify why the following unisolable components are not within the scope of LR:

- C LR Drawing LR-36043 at location C-6 shows a 3 inch vent line on the top of machine shop drain tank T-103.
- C LR Drawing LR-36043 at location C-6 shows a 4 inch vent line on the top of reactor building floor drain sump S-37.
- C LR Drawing LR-36043 at location C-6 shows line RWN46-4"-MR entering the reactor building floor drain sump S-37 from the equipment drain sump S-42 overflow.
- C LR Drawing LR-36043 at location C-3 shows a 4 inch vent line on the top of drywell floor drain sump S-38.
- C LR Drawing LR-36044 at location C-2 shows a 4 inch vent line on the top of drywell equipment drain sump S-43.
- C LR Drawing LR-36044 at location C-2 shows a 4 inch vent line on the top of drywell equipment drain sump S-43.
- C LR Drawing LR-36044 at location A-3 shows a 4 inch vent line on the top of turbine building normal waste sump S-45.
- C LR Drawing LR-36044 at location C-5 shows piping to an obsolete sensing line on the top of reactor building equipment drain tank T-56.
- C LR Drawing LR-36044 at location A-5 shows a 4 inch vent line and piping to an obsolete sensing line on the top of the condensate drip tank T-22.
- C LR Drawing LR-36044 at location A-7 shows a 4 inch vent line and RWN48-4"-MR exiting the turbine building equipment drain sump S-44.
- C LR Drawing LR-36044 at location C-7 shows a 4 inch vent line and RWN46-4"-MR exiting the reactor building equipment drain sump S-42.

RAI 2.3.3.13-2

LR Drawing LR-36044 at location D-7 identifies a 10 CFR 54.4(a)(2) boundary for the RAD system as the section of piping before a normally open isolation valve, CRW-1 (not within the scope of license renewal), from the condensate storage tank overflow tank T-67. Failure of the non-isolated piping can adversely impact the LR pressure boundary function for the radwaste

solid and liquid system. Justify the location of the LR scope boundary at Valve CRW-1 with respect to the applicable requirements of 10 CFR 54.4(a).

RAI 2.3.3.13-3

LR Drawings LR-36044 at locations A-7, C-7, C-3, and A-3 and LR-36043 at locations A-6, A-5, C-6, and C-3 show the turbine building equipment drain sump (S-44), reactor building equipment drain sump (S-42), drywell equipment drain sump (S-43), turbine building normal waste sump (S-45), condensate pump area sump (S-53), turbine building floor drain sump (S-40), reactor floor drain sump (S-37), and drywell floor drain sump (S-38) as not within the scope of LR. LRA Section 2.3.3.13, Radwaste Solid and Liquid System, page 2-147 states that all radwaste solid and liquid system components existing in either the turbine or reactor buildings, and constituting a liquid pressure boundary, are within the scope of LR. Failure of the liners for these sumps can negatively impact the intended liquid pressure boundary function of the components. Clarify that the sumps and their associated liners are within the scope of LR and subject to an AMR in accordance with the applicable requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a), respectively, or justify their exclusion.

RAI 2.3.3.15-1

LR Drawing LR-36254 at location C-8 contains two references (line REW3-4" EBD from reactor recirculation loop B, and line REW31-2"-ED from reactor vessel drain) to LR Drawing LR-36243 at location C-5. However, LR Drawing LR-36243 only shows one reference (line REW31-2"-ED which is also capped) to LR Drawing LR-36254. Clarify this discrepancy and confirm which portions of the piping are within the scope of LR and subject to an AMR in accordance with the requirements of 10 CFR 54.4(a) and 10 CFR 54.21(a), respectively, or justify their exclusion.

RAI 2.3.4.1-1

The high pressure coolant injection pump is normally lined up to the condensate storage tanks and the suction is switched to the suppression pool when the level in either tank falls to the Technical Specification low level in either condensate storage tank (CST) or a high water level is sensed in the suppression pool. LRA Section 2.3.4.1 states that the in-scope portion of the condensate storage system consists of piping and valves, which supply the fuel storage pool, high pressure coolant injection, reactor core isolation cooling, residual heat removal, control rod drive, condensate, feedwater, core spray, main condenser, and radwaste systems. In addition, the instrumentation associated with the automatic transfer from the condensate storage tank to the suppression pool is safety-related, the components are within the scope of LR in accordance with 10 CFR 54.4(a)(1). LRA Table 2.3.4-1 shows that the intended function for all condensate storage system component groups is "pressure boundary."

The piping that is within scope of license renewal associated with the safety-related level instrumentation for the north and south condensate storage tanks, is shown on LR Drawing LR-36039 at locations B-3 and B-6. For each CST, the portion within scope includes the portion of the CST connection piping C22-4"-HJ and C23-4"-HJ between the reactor building and the CST level instruments. The remaining portion of these lines from the reactor building to the CST is not shown as being within the scope of license renewal. Since failure of this out-of-scope piping would have the same effect as a pressure boundary failure of the portion within the scope of license renewal, justify why the portion of lines C22-4"-HJ and C23-4"-HJ between the reactor building and the CST is not also within the scope of LR.

RAI 2.3.4.2-1

LRA Table 2.3.4-2 identifies "Pressure Boundary" as the intended function for all the heat exchangers in the condensate and feedwater (CFW) system within the scope of license renewal. LR Drawings LR-36034 and LR-36035 show that the shells for feedwater heaters E-11A, E-11B, E-12A and E-12B are non-safety-related and are included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2) criteria. However, several turbine and extraction steam lines connected to the heat exchanger shell pressure boundary are not shown within the scope of LR. These lines include:

C Lines E9-26"-HCD, E10-26"-HCD, E11-26"-HCD, and E12-26"-HCD for L.P. Heater E-11A on LR-36034 (Quadrant B4)

C Lines E1-20"-HCD and E2-20"-HCD for L.I.P. Heater E-12A on LR-36034 (Quadrant B4)

C Lines E13-26"-HCD, E14-26"-HCD, E15-26"-HCD, and E16-26"-HCD for L.P. Heater E-11B on LR-36035 (Quadrant B-6)

C Lines E2-20"-HCD and E4-20"-HCD for L.I.P. Heater E-12B on LR-36035 (Quadrant C-6)

Justify why the turbine generator system piping connected to the CFW system heaters are not within the scope of LR relative to the components intended function defined in LRA Table 2.3.4-2 and the scoping criteria specified in 10 CFR 54.4(a)(2).

RAI 2.3.4.2-2

LR Drawing LR-36036 at locations C-5, C-6, D-5, and D-6 identifies the shells for feedwater heaters E-11A, E-11B, E-12A and E-12B as non-safety-related and within the scope of LR in accordance with 10 CFR 54.4(a)(2) criteria. However, the drawing also shows a connecting steam line to each heater shell as not within scope with references to LR-36035 (C-5), LR-36035 (B-5), LR-36034 (B-4), and LR-36034 (C-4). The aforementioned references could not be found on the indicated LR drawings. Please identify the correct drawing reference and location for these references. In addition, justify the determination that the steam piping connected to the CFW system heaters are not within the scope of LR relative to the components intended function defined in LRA Table 2.3.4-2 and the scoping criteria specified in 10 CFR 54.4(a)(2).

RAI 2.3.4.3-1

LR Drawing LR-36035-2 at location B-2 pipe section line number OG6-8"-HC at separator T-72 and downstream piping is not within the scope of LR. All other piping and components within the apparent plant area are within the scope of LR. Failure of this unisolable section of pipe could have an effect on the LR intended pressure boundary function for the main condenser (CDR) system. Justify why these sections of unisolable piping and components were left out of scope.

RAI 2.3.4.3-2

LR Drawing LR-54817-4 at location A-7 is not listed in LRA Section 2.3.4.3 as a LR drawing for the CDR system. Clarify why LR-54817-4 is not included in LRA Section 2.3.4.3 as a LR drawing for the CDR system.

RAI 2.3.4.4-1

LR Drawing LR-36035-2 at locations D-7 and B-7 indicate pipe line numbers D109-1"-EF and D108-1"-EF (steam supply lines to Air Ejectors E-2B and E-2A) are not within the scope of LR. The Monticello LRA Table 2.3.4-4 states that piping, fittings and valves are in scope with intended function of pressure boundary. Failure of this section of pipe could have an effect on the LR intended function of pressure boundary for the main steam system piping. Please justify why these sections of unisolable piping and components are not within the scope of LR.

RAI 2.3.4.5-1

LR Drawing LR-36034 at location B-4 shows a portion of the sensing line to PT-1217 attached to pipe E2-20"-HCD as within the scope of LR; however, the remaining portion of the sensing line and pressure transmitter is shown as not within scope. In addition, LR Drawing LR-36035 at location D-7 shows pressure transmitters PT-1222 and PT-1223 and portions of the sensing lines to these transmitters as within the scope of LR; however, the remaining portions of the sensing line to pipes E3-20"-HCD and E16-26"-HCD are shown as not within scope. LRA Section 2.3.4.5, Turbine Generator System, page 2-188 states that the LR function for turbine generator piping and gauges is maintaining a pressure boundary and LRA, page 2-187, states that non-safety-related structures and/or components of the turbine generator system that could affect safety-related SSCs must maintain sufficient integrity such that the intended function of the safety-related SSCs is not adversely affected. Failure of the sensing lines noted above could affect the LR intended function for this turbine generator piping and possibly have a negative impact on the safety-related SSCs. Justify why portions of the sensing lines and associated pressure transmitters are not within the scope of LR.

RAI 2.3.4.5-2

LRA Section 2.3.4.5, Turbine Generator System, page 2-188 states that the LR function for turbine generator piping is maintaining a pressure boundary and LRA, page 2-187, states that non-safety-related structures and/or components of the turbine generator system that could affect safety-related SSCs must maintain sufficient integrity such that the intended function of the safety-related SSCs is not adversely affected.

LR Drawings LR-36034 at location B-4 and LR-36035 at location B-6, B-7 and C-7 show piping to LIP Heater 12-A&B and LP Heater 11-A&B (E9-26"-HCD, E10-26"-HCD, E11-26"-HCD, E12-26"-HCD, E1-20"-HCD, E2-20"-HCD, E14-26"-HCD, E13-26"-HCD, E15-26"-HCD, E16-26"-HCD, E4-20"-HCD, E3-20"-HCD) as not within the scope of LR. However, the sensing lines to pressure transmitters attached to these pipes are shown as within the scope of LR. Failure of the above cited pipes could effect the LR intended function of pressure boundary for the turbine generator piping and possibly have a negative impact on the safety-related SSCs. Justify why the above cited pipes are not within the scope of LR.