May 25, 2007

L-MT-07-034
10 CFR 50.90

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

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

Response to Request for Additional Information to Revise TS Surveillance Requirement 3.5.1.3 to Correct the Alternate Nitrogen System Pressure (TAC No. MD4095)

Reference: NMC letter to NRC, "License Amendment Request to Revise Technical Specification Surveillance Requirement 3.5.1.3 to Correct the Alternate Nitrogen System Pressure," (L-MT-07-014), dated January 30, 2007.

On January 30, 2007, the Nuclear Management Company, LLC (NMC) submitted a request to revise the Alternate Nitrogen System pressure in Surveillance Requirement 3.5.1.3.b of the Monticello Nuclear Generating Plant Technical Specifications. On April 17, 2007, the U.S. Nuclear Regulatory Commission requested additional information during a teleconference on the basis for the proposed change. Enclosure 1 provides the requested information.

This letter makes no new commitments or changes to any existing commitments.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Minnesota official.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on May 25, 2007.

For T. J. O'Connor

Timothy J. O'Connor
Site Vice President, Monticello Nuclear Generating Plant
Nuclear Management Company, LLC

Enclosure

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

ENCLOSURE 1

Introduction

On April 17, 2007, the U.S. Nuclear Regulatory Commission (NRC) requested the Nuclear Management Company, LLC (NMC) to provide a summary description of the Alternate Nitrogen System design and the system's integration with the Automatic Depressurization System (ADS). This request for information was based on a proposed license amendment request (LAR) (Reference 1) to correct the value specified for the Alternate Nitrogen System supply pressure to the ADS in Surveillance Requirement (SR) 3.5.1.3.b from > 220 psig to ≥ 410 psig.

Alternate Nitrogen System Description

The Alternate Nitrogen System was designed as a long-term, safety-related backup to the normal non-safety related pneumatic supplies (the Instrument Air and Instrument Nitrogen Systems). The Alternate Nitrogen System consists of two separate safety-related subsystems supplied from separate nitrogen bottle racks in the Turbine Building. Manifold pressure is maintained greater than or equal to 410 psig to maintain Alternate Nitrogen System operability. The Alternate Nitrogen System supplies the following major components:

1. Primary Containment and Atmospheric Control System Purge and Vent Valve T-ring seals
2. Reactor Building to Torus Vacuum Breaker T-ring seals and actuators
3. Inboard Main Steam Isolation Valve actuators
4. Hard Pipe Vent System Isolation Valves and rupture disc
5. Various functions of the Safety Relief Valves (SRVs), summarized below.

The Alternate Nitrogen System was installed to assure SRV actuation for the ADS, Low-Low Set (LLS), alternate shutdown, and manual depressurization functions during all applicable design basis events. Alternate Nitrogen System supply was assigned to six of the eight SRVs (between the two subsystems) to provide a safety-related backup to support the functions listed below (two SRVs are served by accumulators).

- Three SRVs (RV-2-71A, C and D) are assigned to the ADS.
- Three SRVs (RV-2-71E, G and H) are assigned to the LLS.
- Four SRVs (RV-2-71B, E, F and H) satisfy the NUREG-0737, Item II.K.3.28 commitment to provide a 100-day air supply to ensure long term ECCS capability.

Alternate Nitrogen System and the ADS Interrelationship

SR 3.5.1.3.b was added during the Improved Standard Technical Specification (ITS) conversion to describe the Alternate Nitrogen System pneumatic supply pressure requirement to the portion of the ADS served by the system. Since the proposed LAR pertains only to correcting an incorrect value in the Technical Specifications (TS) for the

Alternate Nitrogen System pneumatic supply pressure to the ADS, the following technical discussion refers only to the relationship between the ADS and the Alternate Nitrogen System.

As indicated previously, three of the eight SRVs are assigned to the ADS function. The ADS is an automatic actuation logic system which provides a backup to the High Pressure Coolant Injection (HPCI) System during a loss of coolant accident (LOCA) by depressurizing the reactor vessel to permit low pressure Emergency Core Cooling System (ECCS) injection. Two of the three ADS valves are normally supplied by the non-safety related Instrument Nitrogen System. Each ADS valve has a different safety-related backup nitrogen supply, described below.

- RV-2-71A (Alternate Nitrogen Subsystem A)
- RV-2-71C (Alternate Nitrogen Subsystem B)
- RV-2-71D[1]

ITS Conversion Discussion

The ITS NUREG for the BWR/4 plant design (NUREG-1433) (Reference 2) includes a surveillance requirement, SR 3.5.1.3, to verify every 31 days that the supply pressure to the ADS is greater then or equal to a specified value. This SR was not included in the previous Monticello Nuclear Generating Plant (MNGP) custom TS.

Each ADS valve has a different safety-related pneumatic backup source at the MNGP (i.e., Alternate Nitrogen Subsystem A, Alternate Nitrogen Subsystem B, or the accumulator bank in the Drywell). Therefore, it was necessary to modify SR 3.5.1.3 as part of the ITS conversion to reflect the different safety-related, back-up, pneumatic supplies. However, during the ITS conversion the wrong value for the Alternate Nitrogen System pressure (220 psig) was chosen from a calculation and specified in SR 3.5.1.3.b as the required pressure. SR 3.5.1.3 currently reads:

Verify ADS pneumatic pressure is as follows for each required ADS pneumatic supply:

a. SRV Accumulator Bank header pressure > 88.3 psig; and

b. Alternate Nitrogen System pressure is > 220 psig.

It was later identified that the wrong value (220 psig) had been specified as the required Alternate Nitrogen System pressure. The Alternate Nitrogen System pressure should actually have been stated as ≥ 410 psig in the surveillance requirement.

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1. The safety-related pneumatic supply to ADS SRV RV-2-71D is provided by a bank of four accumulators located in the Drywell (charged by the Instrument Nitrogen or Instrument Air Systems).

On January 30, 2007, the NMC submitted a LAR for the MNGP (Reference 1) to revise the Alternate Nitrogen System pressure in SR 3.5.1.3.b to the correct value of ≥ 410 psig. The NMC has determined that the current MNGP TS value of 220 psig for the Alternate Nitrogen System pressure is non-conservative and that the guidance of NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," applies. In the interim until this TS change is approved, the NMC has implemented administrative controls to maintain the Alternate Nitrogen System supply pressure at ≥ 410 psig.

REFERENCES

1. NMC letter to NRC, "License Amendment Request to Revise Technical Specification Surveillance Requirement 3.5.1.3 to Correct the Alternate Nitrogen System Pressure," (L-MT-07-014), dated January 30, 2007.

2. NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," Revision 3.1, dated December 1, 2005.