

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 28, 2009

Mr. Mark A. Schimmel Site Vice President Prairie Island Nuclear Generating Plant Northern States Power Company - Minnesota 1717 Wakonade Drive East Welch, MN 55089-9642

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2 -

REQUEST FOR ADDITIONAL INFORMATION RELATED TO RESPONSE TO GENERIC LETTER (GL) 2008-01, "MANAGING GAS ACCUMULATION IN

EMERGENCY CORE COOLING, DECAY HEAT REMOVAL, AND

CONTAINMENT SPRAY SYSTEMS" (TAC NOS. MD7866 AND MD7867)

Dear Mr. Schimmel:

By letters to the U.S. Nuclear Regulatory Commission (NRC) dated October 14, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082880483), and January 30, 2009 (ADAMS Accession No. ML093000705), Northern States Power Company, a Minnesota corporation (the licensee), doing business as Xcel Energy, submitted a response to Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" for the Prairie Island Nuclear Generating Plant, Units 1 and 2.

The NRC staff is reviewing your submittals and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. During a discussion with your staff on September 3, 2009, it was agreed that you would provide a response within 60 days of the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and

effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-4037.

Sincerely,

Thomas J. Wengert, Senior Project Manager

Plant Licensing Branch III-1

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-282 and 50-306

Enclosure:

Request for Additional Information

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# REQUEST FOR ADDITIONAL INFORMATION (RAI)

#### PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNITS 1 AND 2

## RESPONSE TO GENERIC LETTER (GL) 2008-01, "MANAGING GAS ACCUMULATION IN

# EMERGENCY CORE COOLING, DECAY HEAT REMOVAL,

## AND CONTAINMENT SPRAY SYSTEMS"

## **DOCKET NOS. 50-282 AND 50-306**

The Nuclear Regulatory Commission (NRC) staff is reviewing the subject Prairie Island Nuclear Generating Plant (PINGP) responses dated October 14, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082880483), and January 30, 2009 (ADAMS Accession No. ML090300705). The NRC staff has determined that additional information requested below is needed to complete its review. Guidance on the NRC staff's expectations is provided by Reference 1, which is generally consistent with Nuclear Energy Institute (NEI) guidance provided to industry in Reference 2, as clarified in later NEI communications. The NRC staff recommends that the licensee consult Reference 1 when responding to the following RAIs:

- Clarify the schedule for submitting a license amendment request (LAR), if it is necessary
  to submit an LAR as a result of the evaluation of the Technical Specification Task Force
  traveler.
- In Reference 5, it was reported that several voids were found that resulted in systems conditions being evaluated as "operable but nonconforming." Clarify how operability is determined, including a description of criteria used, analyses performed, and consideration of the size of the void and how it affects the system in all modes of operation.
- 3. In Reference 4, it is stated that the licensee's "CAP process requires that a potentially nonconforming condition be documented in the CAP. This would be the case should an as-found measured void size fail[s] to meet its acceptance criterion. The Shift Manager would review the CAP to evaluate for potential impact on operability and reportability." Clarify the meaning of "potentially nonconforming" and "potential impact", including any criteria used in the determination. Describe follow-up actions to be taken when a void is identified as nonconforming and documented in the CAP.
- 4. Training was not identified in the Generic Letter (GL), but is considered to be a necessary part of applying procedures and other activities when addressing the issues identified in the GL, as the licensee has recognized. Provide a brief description of training.

- 5. In Reference 4, it is stated that "Design features and water level set points are controlled by design and operating procedures to prevent vortex effects that can potentially introduce gas into the system during design basis events". Since flow rates under realistic accident conditions (non-degraded pumps, two trains running) may significantly exceed the design basis accident flow rates, clarify how the stated conclusions are applicable to actual expected accident conditions and for all modes of operation.
- 6. In Reference 4, it is stated that "PINGP does not have specific leakage acceptance criteria for leakage between high pressure and low pressure systems pertaining to gas intrusion." Reference 3 states "Gas in discharge piping can be an indicator of potential backleakage from high-pressure sources such as accumulators or the RCS ..." Clarify whether a gas leakage acceptance criterion will be developed or justify that existing procedures and criteria are able to control gas intrusion. Include consideration of the effects of leakage on the pressures of the systems involved; the accumulator, reactor cooling system, emergency core cooling system piping.

# **REFERENCES**

- 1. Ruland, William H., "Preliminary Assessment of Responses to Generic Letter 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems,' and Future NRC Staff Review Plans," NRC letter to James H. Riley, NEI, ADAMS Accession No. ML091390637, May 28, 2009.
- 2. Riley, James H., "Generic Letter (GL) 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Contain Spray Systems' Evaluation and 3 Month Response Template," Letter to Administrative Points of Contact from Director, Engineering, Nuclear Generation Division, NEI, Enclosure 2, "Generic Letter 2008-01 Response Guidance," March 20, 2008.
- Case, Michael J., "NRC Generic Letter 2008-01: Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," Letter from Director, Division of Policy and Rulemaking, Office of Nuclear Reactor Regulation, NRC, ADAMS Accession No. ML072910759, January 11, 2008.
- 4. Wadley, Michael D., "Prairie Island Nuclear Generating Plant Units 1 and 2, Dockets 50-282 and 50-306, License Nos. DPR-42 and DPR-60, Nine-Month Response to NRC Generic Letter 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems'," Letter to Document Control Desk (DCD), NRC, from Site Vice President, Northern States Power Co. Minnesota, ADAMS Accession No. ML082880483, October 14, 2008.
- 5. Sorensen, Joel P., "Prairie Island Nuclear Generating Plant Units 1 and 2, Dockets 50-282 and 50-306, License Nos. DPR-42 and DPR-60, Ninety-Day 2R25 Post-Outage Report Pursuant to Generic Letter 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems'," Letter to DCD, NRC, from Director Site Operations, Northern States Power Co. Minnesota, ADAMS Accession No. ML090300705, January 30, 2009.

effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-4037.

Sincerely,

/RA/

Thomas J. Wengert, Senior Project Manager Plant Licensing Branch III-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-282 and 50-306

Enclosure:

Request for Additional Information

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