

From: Kuntz, Robert
Sent: Friday, October 29, 2021 1:16 PM
To: Kivi, Jeffrey L.
Cc: Scott, Sara
Subject: Request for Additional Information RE: Prairie Island Cooling Water Amendment (EPID:L-2021-LLA-0187)

By letter dated October 7, 2021 (Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21281A017) Northern States Power Company, doing business as Xcel Energy (Xcel Energy), requested an amendment to the Technical Specifications (TSs) for the Prairie Island Nuclear Generating Plant, Units 1 and 2 (Prairie Island). The proposed amendment would allow a one-time extension of the completion time for required action B.1 of TS 3.7.8. The NRC staff has determined that additional information is required to complete its review. The following is the NRC staff's Request for Additional Information (RAI). During a clarification call held on October 29, 2021 a response date of November 5, 2021 was agreed upon. If you have any questions contact me.

Based on the clarification discussion the following was changed from the DRAFT RAI:

1. The date and ADAMS Accession No. in the body of the e-mail and the "Background" section of the DRAFT RAI was revised from April 19, 2021 to October 7, 2021 and ML21109A385 to ML21281A017. The change was made to accurately reflect the amendment request,
2. "and pumps" was deleted from the "Request" section at the end of the second sentence to be consistent with the Prairie Island TS Bases.

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REQUESTS FOR ADDITIONAL INFORMATION
COOLING WATER SYSTEM LICENSE AMENDMENT REQUEST
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2
DOCKET NOS. 50-282 AND 50-306

Background:

By letter dated October 7, 2021 (Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21281A017) Northern States Power Company, doing business as Xcel Energy (Xcel Energy), requested an amendment to the Technical Specifications (TSs) for the Prairie Island Nuclear Generating Plant, Units 1 and 2 (Prairie Island). The proposed amendment would allow a one-time extension of the completion time for required action B.1 of TS 3.7.8.

The Cooling Water (CL) System takes inventory from Mississippi River and is shared between both units. The system provides cooling (heat sink) for safety related components during accident (DBA) or transient. The license amendment request (LAR) states that sections of the Prairie Island CL System supply header piping will be replaced because microbiologically induced corrosion (MIC) has occurred. The LAR further states that if the valve that is planned to provide isolation is found to leak by excessively, a blind flange will be installed to provide isolation. The amendment states that the contingency will require entry into LCO 3.7.8, Required Action B.1 which has a completion time of 4 hours. The amendment further states that installation of the blind flange would result in entry into Required Action B.1 for an estimated 36 hours for both removal and installation of the blind flange. The overall modification regarding both units could result in the plant being in the TS condition with lack of redundancy four times for 36 hours each. The LAR did not provide probabilistic information to justify low risk and/or lack of redundancy during blind flange installation.

Regulatory Evaluation:

Prairie Island was not licensed to the 10 CFR 50, Appendix A, General Design Criteria (GDC). Prairie Island was designed and constructed to comply with Northern States Power Company's understanding of the intent of the AEC General Design Criteria for Nuclear Power Plant Construction Permits, as proposed on July 10, 1967. However, the AEC Safety Evaluation Report acknowledged that the AEC staff assessed the plant, as described in the Updated Safety Analysis Report (USAR), against the Appendix A design criteria.

USAR Section 1 defines Criterion 41 "Engineered Safety Features Performance Capability" as engineered safety features such as emergency core cooling and containment heat removal systems shall provide sufficient performance capability to accommodate partial loss of installed capacity and still fulfill the required safety function. As a minimum, each engineered safety features shall provide this required safety function assuming a failure of a single active component. To meet this requirement, the USAR states that sufficient redundancy and duplications is incorporated into the design of the engineered safety features to ensure that they may perform their function adequately even with the loss of a single active component.

Request:

TS 3.7.8, ACTION B.1 and B.2 have Completion Times of 4 hours and B.3 is 72 hours or in accordance with the risk informed completion time program. The TS bases state that the Completion Times are based on the redundant capabilities afforded by the operable train. With the proposed LAR to isolate pumps while installing blind flange, the required action would no longer ensure the added capabilities of redundant pumps with only one safeguard diesel driven pump required operable to supply cooling water to an operable train.

Explain how the redundant capabilities relied upon for the existing Completion Time requirements for Condition B would be satisfied with just the diesel-driven CL pump required to be operable. If any additional components are relied upon to provide the redundant capabilities relied upon as the basis for the Completion Times, describe how the redundant capabilities would be ensured during the extended completion time for Action B.1.

Hearing Identifier: NRR_DRMA
Email Number: 1400

Mail Envelope Properties (SA9PR09MB464039E648EDF07C0B8084EF99879)

Subject: Request for Additional Information RE: Prairie Island Cooling Water Amendment
(EPID:L-2021-LLA-0187)
Sent Date: 10/29/2021 1:15:31 PM
Received Date: 10/29/2021 1:15:00 PM
From: Kuntz, Robert

Created By: Robert.Kuntz@nrc.gov

Recipients:
"Scott, Sara" <sara.scott@xcelenergy.com>
Tracking Status: None
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Tracking Status: None

Post Office: SA9PR09MB4640.namprd09.prod.outlook.com

Files	Size	Date & Time
MESSAGE	5462	10/29/2021 1:15:00 PM

Options
Priority: Normal
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date: