



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 22, 2013

Mr. James E. Lynch
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 LICENSE
AMENDMENT REQUEST FOR SPENT FUEL POOL CRITICALITY CHANGES
(TAC NOS. ME6984 AND ME6985)

Dear Mr. Lynch:

By letter dated August 19, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11236A133), as supplemented by letters dated May 16, 2012, and September 4, 2012 (ADAMS Accession Nos. ML12139A198 and ML12249A069, respectively), Northern States Power Company, a Minnesota corporation doing business as Xcel Energy, requested approval from the U.S. Nuclear Regulatory Commission (NRC) for amendments to technical specifications (TS) 3.7.17, "Spent Fuel Pool Storage" and TS 4.3.1, "Fuel Storage Criticality," for the Prairie Island Nuclear Generating Plant, Units 1 and 2.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. On January 7, 2013, Mr. Glenn Adams of your staff agreed that you would provide a response to this request by February 15, 2013.

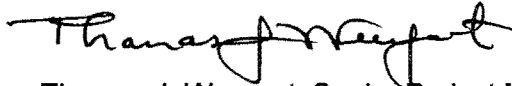
The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources.

J. Lynch

- 2 -

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

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Wengert". The signature is fluid and cursive, with the first name being the most prominent.

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

cc w/encl: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION (RAI)

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-282 AND 50-306

By letter dated August 19, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11236A133), as supplemented by letters dated May 16, 2012, and September 4, 2012 (ADAMS Accession Nos. ML12139A198 and ML12249A069, respectively), Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (the licensee), requested approval from the U.S. Nuclear Regulatory Commission (NRC) for amendments to technical specifications (TS) 3.7.17, "Spent Fuel Pool Storage" and TS 4.3.1, "Fuel Storage Criticality," for the Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2. The NRC staff has reviewed this request and has determined that the following information is required to complete its review.

- (1) Regarding the sensitivity analysis provided in response to RAI-SRXB-1 in the May 16, 2012, submittal, please confirm whether the un-poisoned cases assumed a uniform U-235 enrichment loading across all pins at the U-235 enrichments analyzed.
- (2) Confirm that the actual fuel assemblies at PINGP contain lower enrichments in Gd-bearing pins.
- (3) It is not clear from Section 3.3.3.1 of WCAP-17400-P, enclosed in the August 19, 2011, application, if the database used to determine the axial burnup profile considered extended power uprate (EPU) cycle designs. Please confirm whether operation in an EPU cycle has been considered in determining the limiting axial shape.
- (4) The licensee's criticality analysis provides some assurance that the proposed design basis analysis bounds previous rodded operation of up to 1 gigawatt day per metric ton uranium (GWD/MTU) of depletion. However, since future rodded operation could initiate at or near the other depletion parameters in the proposed design basis analysis, the analysis does not bound future operation. Therefore, the NRC staff requests that the licensee either:
 - (a) Provide an analysis for rodded operation that initiates from the other depletion parameters used in the proposed design basis analysis, or
 - (b) Propose an alternate method of controlling fuel assemblies that have experienced rodded operation.

Enclosure

J. Lynch

- 2 -

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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ADAMS Accession Number: ML13011A316

OFFICE	NRR/LPL3-1/PM	NRR/LPL3-1/LAit	NRR/LPL3-2/LA
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