

April 13, 2011

MEMORANDUM TO: Doug Weaver, Deputy Director  
Licensing and Inspection Directorate  
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Michael D. Waters, Chief **/RA/**  
Licensing Branch  
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF MARCH 17, 2011, MEETING WITH NORTHERN STATES POWER COMPANY – A MINNESOTA CORPORATION (NSPM), FORMERLY NUCLEAR MANAGEMENT COMPANY (NMC) D/B/A XCEL ENERGY, PRE-APPLICATION MEETING FOR LICENSE RENEWAL OF THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) AT THE PRAIRIE ISLAND NUCLEAR POWER STATION

### Background

Northern States Power Company (NSPM) doing business as (d/b/a) Xcel Energy plans to submit an application to renew the Prairie Island (site-specific) ISFSI License No SNM-2506. The site specific license for the Prairie Island ISFSI expires on October 31, 2013. The license renewal regulation, Energy – Title 10 of the Code of Federal Regulations, 10 CFR 72.42 requires submittal of the renewal application two (2) years prior to the license expiration. Therefore, Prairie Island plans to submit an application for renewal in early October 2011. A pre-submittal public meeting was scheduled to communicate to the NRC Prairie Island's licensing approach, schedule, and scope of its upcoming application. The intent of the meeting was to gather feedback on their ISFSI renewal approach from NRC staff. The meeting was broken up into the following topics: ISFSI Site & License Background; Licensing Approach for Application; and Scope of Application.

The meeting was noticed on January 25, 2011. The Agency-wide Documents Access and Management System (ADAMS) accession number for the meeting notice is ML110260187. The meeting agenda is provided as Enclosure 1. The meeting attendance list is provided as Enclosure 2. The handout from the public meeting is provided as Enclosure 3 (ML110730589).

### Discussion

During the discussion of the ISFSI Site Background, NRC staff requested that Prairie Island address the aging effects of high burn-up fuel in the enhanced TN-40HT cask design. NRC staff noted that previous applicants for ISFSI license renewal considered only lower burn-up fuel assemblies. Attention should be given to Prairie Island's higher burn-up fuel during the aging management review.

While discussing the licensing approach for the application NRC staff suggested that in addition to draft NUREG-1927 and 10 CFR 72.42, Prairie Island should review the following regulations

and guidance when developing the License Renewal Application (LRA): 10 CFR Part 51 for the Supplemental Environmental Review; NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs;" and prior applications and requests for additional information related to past ISFSI renewals (e.g., Surry).

During discussions of the content and scope of the application, NRC staff reiterated that Prairie Island needs to account for the different temperatures inside of the cask due to the higher burn-up fuel assemblies within the LRA. NRC staff expressed no opinion with regard to Prairie Island's modification of the scoping criteria to account for the two different quality assurance classifications of Important to Safety (ITS) and Safety-Related (SR). NRC staff questioned Prairie Island's statement that its licensing basis did not include cask tip over calculations. Prairie Island took as an action item to check its licensing basis for non-mechanistic cask tip over calculations. NRC expressed no concern with Prairie Island locating the screening results in Section 2 of the LRA. However, NRC staff stated that the screening results should be located before the aging management review and time-limiting aging analysis sections.

NRC staff noted that Prairie Island is the first plant to consider concrete pads as in-scope for the LRA. NRC staff suggested that Prairie Island consider including a description of the industry standards used for inspections of the concrete pads, as well as how issues identified with the concrete pads are addressed. This detailed information would help facilitate the NRC's review of the concrete pad.

Prairie Island asked the NRC whether or not it expected to perform an audit or inspection as part of the application review process. NRC staff responded that the current review process does not typically include audits or inspections. However, the NRC technical staff reviewing the LRA may consider a site visit to become familiar with Prairie Island's ISFSI location and configuration.

NRC staff recommended that Prairie Island review its operating and maintenance history, and provide a detailed synopsis of this history in the LRA. NRC staff also recommended that Prairie Island review applicable operating experience from other sites to identify active degradation mechanisms (e.g., Peach Bottom).

NRC staff questioned how ISFSI aging management programs that rely on Part 50 programs would be maintained when the Part 50 license expires. These programs would need to be maintained after the site's Part 50 license has expired. It was suggested that Prairie Island consider how to ensure that Part 72 aging management programs which credit Part 50 programs be addressed in the ISFSI LRA.

NSPM requested information regarding the typical review schedule for an ISFSI LRA for planning purposes. NRC staff stated that processing the LRA is similar to processing an amendment and added that the review process and schedule would be dictated by the quality of the amendment. NRC staff took an action to review previous LRA schedules and schedule a conference call to discuss review time with the licensee.

During the Feedback/Discussion portion of the meeting, both the NRC and the licensee indicated receptiveness to the possibility of scheduling a post-submittal public meeting to discuss the content of the LRA. NRC staff indicated that consideration will be given to holding a public meeting with stakeholders for the National Environmental Policy Act (NEPA) environmental review. Additional public meetings to discuss the LRA with stakeholders, while not required, may occur at NRC's discretion.

The Prairie Island Indian Community (PIIC) requested that if the NRC decides to perform a site visit at Prairie Island that a representative from the PIIC be allowed to observe the activities. NRC staff responded that request would be considered.

Actions items:

Xcel Energy

- Address high burn-up fuel assemblies in the License Renewal Application.
- Check Prairie Island licensing basis for non-mechanistic cask tip-over calculations.
- Consider addressing in the application Part 72 programs which rely on Part 50 programs.

NRC

- Schedule teleconference to discuss a proposed timeline of the review schedule for the License Renewal Application.
- If the NRC decides to make an informal site visit, then NRC will determine if a representative of the Prairie Island Indian Community will be contacted to observe the activity.
- Schedule the post-submittal public meeting (if needed) to support the acceptance review process.

The staff did not make any regulatory commitments at the meeting.

Docket No. 72-10  
TAC No. L24508

Enclosures:

1. Meeting Agenda
2. List of Meeting Attendees
3. Meeting Slides (**ML110730589**)

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Distribution: SFST r/f NRC Attendees BWhite

G:\SFST\Prairie Island\Meeting Summary 03172011.docx **ADAMS Package No.: ML111080560**

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C=Without attachment/enclosure E=With attachment/enclosure N=No copy

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## **AGENDA**

March 17, 2010, 1:00 p.m. – 4:00 p.m.

Northern States Power Company – Minnesota d/b/a Excel Energy

Opening Remarks/Objective  
Prairie Island ISFSI Background  
Licensing Approach for Submittal  
Scope of License Renewal Submittal  
Schedule  
Summary  
Feedback/Discussion  
Q&A – Public  
Adjourn

**Meeting Between Northern States Power Company – Minnesota (NSPM),  
d/b/a Xcel Energy and the Nuclear Regulatory Commission  
March 17, 2011  
Meeting Attendees**

Longmire, Pamela	NRC/NMSS/SFST
Diaz-Toro, Diana	NRC/FSME/DWMEP/EPPAD/ERB-A
Lipa, Christine	R-III (VTC)
Giessner, John	R-III (VTC)
Pstrak, David	NRC/NMSS/SFST
Rahimi, Meraj	NRC/NMSS/SFST
Waters, Michael	NRC/NMSS/SFST
Hornseth, Geoffrey	NRC/NMSS/SFST
Einziger, Robert	NRC/NMSS/SFST
Piotter, Jason	NRC/NMSS/SFST
Gordon, Matthew	NRC/NMSS/SFST
Tripathi, Bhasker	NRC/NMSS/SFST
DePaula, Sara	NRC/NMSS/SFST
Tarantino, David	NRC/NMSS/SFST
Rao, Appajosula	NRC/NMSS/SFST
Jordan, Natreon	NRC/NMSS/SFST
Moore, Johari	NRC/FSME/DWMEP/EPPAD/ERB-A
BowdenBerry, Elva	NRC/OGC (by phone)
Learn, Matthew	R-III (VTC)
Tapp, Jeremy	R-III (VTC)
Edwards, Rhex	R-III (VTC)
Rodriquez, Lionel	R-III (VTC)
Logaras, Harral	R-III (VTC)
McGrady-Finneran, Patricia	NRC/FSME/DILR/ILB (by phone)

**Meeting Between Northern States Power Company – Minnesota (NSPM),  
d/b/a Xcel Energy and the Nuclear Regulatory Commission  
March 17, 2011  
Meeting Attendees (continued)**

Keegan, Elaine	NRC/NRR/DLR/RPB2 (by phone)
Samson, S. Lee	NSPM, d/b/a Xcel Energy
Gunderson, Lynne	NSPM, d/b/a Xcel Energy
Nelson, H. Oley	NSPM, d/b/a Xcel Energy
Eckholt, Jennie	NSPM, d/b/a Xcel Energy
Roman, William	NSPM, d/b/a Xcel Energy
Holthaus, Jim	NSPM, d/b/a Xcel Energy (by phone)
Bergland, Britta	NSPM, d/b/a Xcel Energy (by phone)
Pickens, Terry	NSPM, d/b/a Xcel Energy (by phone)
Cameron, Chip	Prairie Island Indian Community
Westra, Heather	Prairie Island Indian Community (by phone)
Sicity, Dave	Member of the public
Hoff, Jim	Member of the public
Greene, Carlyn	Ux Consulting (by phone)