



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

June 20, 2014

LICENSEE: Northern States Power Company – Minnesota, doing business as Xcel Energy

FACILITIES: Monticello Nuclear Generating Plant
Prairie Island Nuclear Generating Plant, Units 1 and 2

SUBJECT: SUMMARY OF THE MAY 16, 2014, PUBLIC MEETING WITH NORTHERN STATES POWER COMPANY – MINNESOTA (NSPM) TO DISCUSS THE FLOOD HAZARD RE-EVALUATION EXTENSION REQUEST FOR THE MONTICELLO NUCLEAR GENERATING PLANT AND PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2 (TAC NOS. MF3651, MF3629, AND MF3630)

On May 16, 2014, the U.S. Nuclear Regulatory Commission (NRC) staff held a Category 1 public meeting with representatives of NSPM (the licensee) via teleconference. The purpose of the meeting was to discuss the licensee's request for extension of its flood hazard re-evaluation (FHR) report submittal date for the Monticello Nuclear Generating Plant (Monticello) and Prairie Island Nuclear Generating Plant, Units 1 and 2 (Prairie Island). The objectives of the meeting were for NSPM to describe its FHR scope of analysis, the basis in development of its proposed schedule, the need for extension, and to address NRC staff questions. Enclosure 1 to this meeting summary contains the list of participants.

The licensee's presentation followed handout material (docketed at Agencywide Documents Access and Management System (ADAMS) Accession No. ML14153A024) provided during the meeting. A summary of the topics discussed at the public meeting is provided below.

U.S. Army Corp of Engineers (USACE) Data

The NRC staff expressed concern with the 3 - 4 months allotted in the licensee's schedule to process the data provided by the USACE in response to NSPM's technical assistance request. NSPM stated that it requested hydrograph data by each dam, thus leading to an expectation that it would receive at least 19 hydrographs. The NRC staff indicated that the USACE would not be providing one hydrograph per dam. Therefore, NSPM will take an action to re-evaluate its estimated 3 - 4 month schedule duration considering new information on the number of hydrographs being provided by the USACE.

General Questions

The NRC staff questioned if the site-specific probable maximum precipitation (PMP) evaluation discussed in the licensee's presentation was similar to the work being performed by Applied Weather Associates (AWA). NSPM states that AWA is the subcontractor performing the PMP evaluation work.

The NRC staff requested information regarding the status of other flooding hazards. The licensee stated that the Local Intense Precipitation (LIP) at Monticello was complete.

Interim Actions

The NRC staff requested the status of interim actions. The staff asked the licensee if the interim actions were already started and inquired about the duration of the activity to develop interim actions on the schedule, which extends from July 2014 to the time when the USACE data is received, and whether that duration could be shortened. The licensee stated that the interim actions are in a conceptual stage at this point and that it will begin developing formalized interim action options this summer (July 2014).

The NRC staff asked about the need for interim actions based on the results of the calculations completed as of the public meeting. NSPM stated that no interim actions are required based on currently completed calculations. The calculations being re-evaluated during the extension time have conservative results and interim actions will be developed, if necessary, when those calculations are complete.

The NRC staff questioned if NSPM planned to work on interim actions while the calculations were being completed. NSPM stated that it will evaluate the need for interim actions while the calculations are being prepared and results are obtained.

The NRC staff asked NSPM to provide a plan for developing interim actions to help provide a basis for granting the extension. The type of information the NRC expects in the plan is how NSPM will determine the need for interim actions and implement the interim actions, what would the plan include, and what would trigger implementation, if necessary. The NRC clarified that the NRC is not expecting specifics on what the actions will be, just the plan for how the interim actions will be developed. NSPM agreed to provide the plan for developing interim actions.

NSPM also agreed to discuss the timeline for providing a plan to the NRC in a follow-up phone conversation with the NRC Project Manager. In a follow-up phone conversation with the NRC staff, NSPM indicated that it would provide an additional response by June 13, 2014, to include 1) a review of its schedule to determine if the task related to evaluating the USACE data should be changed based on the NRC staff's statement that the USACE will not be providing hydrographs per dam, and 2) the plan for developing interim actions. The licensee's response was provided on June 13, 2014 (ADAMS Accession No. ML14168A018), and is included as Enclosure 2.

Actions

NSPM will review its current schedule to determine if the assigned timeframe for evaluation of the USACE data may be changed based on USACE not providing hydrographs per dam. NSPM will also provide an interim action plan to the NRC staff.

Before the meeting adjourned, all meeting participants were given the opportunity to comment on any aspects of the meeting.

Mrs. Ruth Thomas had the following questions (responses from the NRC staff are provided):

1. How are the evaluations provided by the USACE? The USACE typically does not provide the data and evaluations directly to private entities due to security concerns.

the NRC staff.

2. Do the evaluations include groundwater and aquifers for both Monticello and Prairie Island? The evaluations being submitted by NSPM do include certain aspects of the groundwater and aquifers for both facilities. Also, the respective watersheds for Monticello and Prairie Island are very large and, therefore, will have some specific differences. They do share a significant common attribute - the Mississippi River.

No additional feedback regarding the meeting was provided.

Please direct any inquiries to me at 301-415-3049 or e-mail Terry.Beltz@nrc.gov.



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Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-263, 50-282, and 50-306

Enclosures:

1. List of Participants
2. Xcel Energy Follow-up Response

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LIST OF PARTICIPANTS

MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION (NRC)

AND NORTHERN STATES POWER COMPANY - MINNESOTA (NSPM)

DISCUSS THE FLOOD HAZARD RE-EVALUATION REPORT EXTENSION REQUEST

FOR THE MONTICELLO NUCLEAR GENERATING PLANT

AND PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2

<u>NAME</u>	<u>ORGANIZATION</u>
Terry Beltz	NRC/NRR/DORL/LPL3-1 ¹
Aldo Capristo	NSPM
Peter Chaput	NRC/NRO/DSEA/RHM2 ²
Dr. Pablo Gonzalez	Black & Veatch
John Grubb	NSPM
Brad Harvey	NRC/NRO/DSEA/RHM1 ³
John Kapitz	NSPM
Rob Kuntz	NRC/NRR/JLD/PMB ⁴
Dan Ludwig	NSPM
Ed Miller	NRC/NRR/DORL/LPL2-1 ⁵
Matt Mitchell	NRC/NRR/JLD/PMB ⁴
Marty Murphy	NSPM
Jody Nemcek	NSPM
Carlos Parada	NSPM
Terry Pickens	NSPM
Rick Rohrer	NSPM
Ken See	NRC/NRO/DSEA/RHM1 ³
Steve Thomas	Black & Veatch
Scott Wall	NRC/NRR/DORL/LPL3-1 ¹
Brian Zelenak	NSPM
Richard Zyduck	NSPM

Additional stakeholders participated by telephone:

Mike Kaluzniak	Minnesota Public Utility Commission
Jeff Kitsembel	Public Service Commission of Wisconsin
Ruth Thomas	Environmentalists Incorporated

1 Office of Nuclear Reactor Regulation, Division of Operating Reactor Licensing, Plant Licensing Branch III-1
2 Office of New Reactors, Division of Site Safety and Environmental Analysis, Hydrology and Meteorology Branch
3 Office of New Reactors, Division of Site Safety and Environmental Analysis, Hydrology and Meteorology Branch
4 Office of Nuclear Reactor Regulation, Japan Lessons-Learned Project Directorate, Project Management Branch
5 Office of Nuclear Reactor Regulation, Division of Operating Reactor Licensing, Plant Licensing Branch II-1

INTRODUCTION

On May 16, 2014, the NRC held a public meeting regarding NSPM's Flood Hazard Reevaluation Report (FHRR) extension requests for Prairie Island and Monticello Nuclear Generating Plants. NSPM requested to complete the FHRRs within 10 months after receiving the USACE information. The purpose of the public meeting was for the NRC to gain a better understanding of the acceptability/basis of the timeframe for the proposed schedule extension to ensure that the safety aspects were considered. During this meeting, NSPM agreed to follow-up with the NRC on the following two items:

- 1) NSPM will review the schedule to see if the task related to evaluating the USACE data should be changed based on the NRC's indication that the USACE will not be providing hydrographs per dam.
- 2) NSPM will provide the NRC a plan for developing interim actions.

This document provides NSPM's responses to the actions from the May 16th public meeting. The actions are noted below in italics and then followed by the NSPM response.

RESPONSE TO ACTIONS FROM PUBLIC MEETING

ACTION 1: Review the schedule to see if the task related to evaluating the USACE data should be changed based on the NRC's indication that the USACE will not be providing hydrographs per dam.

RESPONSE: The task "Evaluate Revised Hydrology from the USACE Information" includes receiving information from USACE and determining how best to utilize it in the hydrologic model. Then the team will combine the USACE hydrographs with site specific PMP values and incorporate failure data known for important dams not operated by USACE.

The 3 to 4 months duration includes time to review the response information from the USACE and time to seek additional clarification, adjust the model and refine the subbasin modeling if necessary. Benchmarking and calibration of the model will also take place during this time and several iterations are expected in order to get the hydrologic model to accurately reflect the behavior of the watershed during floods and dam failures. At this time, based on the scope of work planned and the uncertainty of what information NSPM will receive from the USACE, NSPM continues to estimate the task will take 3 to 4 months to complete.

To the extent possible, all non-USACE related work will be completed prior receiving the USACE information to expedite the process once the USACE information is received.

ACTION 2: Provide a plan for developing interim actions for external flooding.

RESPONSE: The interim actions will occur in four steps and will be developed in parallel with the refined flood hazard analysis.

Step 1: Preparation. This includes assembling and briefing the team, reviewing the flood coping concepts that have been developed to date, and benchmarking another plant that faces similar flood hazards. The assumed flood height and timing will be developed at this stage to guide development of interim actions. These inputs will be validated in step 3.

Step 2: Strategies. The second step is the development of strategies to fulfill each of the key safety functions in the event of a flood. The components and site areas that are needed to perform the safety functions will either be located above the assumed flood height or protected from flood water intrusion. The strategies will be assessed by developing an implementation flowchart, and performing walkthroughs. Drafts of implementation procedures will also be developed.

Step 3: Validation. The strategies developed in step 2 will be validated when the final flood height and timing results are completed for each flooding mechanism. The validation will check that the flood height and timing that were used to develop the strategies remain bounding. If not, then the strategies will be adjusted as needed. This step will also serve as the trigger to determine whether interim actions are required.

Step 4: Implementation. This step will be performed if any flood hazard reevaluation analysis determines that the flood hazard is not fully bounded by the design basis flood. This involves creating formal procedures, requesting and budgeting for plant modifications (if needed) and training personnel on how to manage a beyond design basis flood. The exact schedule will be determined by the number and type (outage or non-outage) of modifications needed to effect the interim actions and training required for the new procedures.

the NRC staff.

2. Do the evaluations include groundwater and aquifers for both Monticello and Prairie Island? The evaluations being submitted by NSPM do include certain aspects of the groundwater and aquifers for both facilities. Also, the respective watersheds for Monticello and Prairie Island are very large and, therefore, will have some specific differences. They do share a significant common attribute - the Mississippi River.

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/RA/

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 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

Docket No. 50-263, 50-282, and 50-306

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ADAMS Accession Numbers:

Package: ML14153A026

Meeting Notice: ML14121A446

Meeting Summary: ML14153A025

Licensee's Presentation: ML14153A024

Xcel Energy Follow-up Response: ML14168A018

OFFICE	LPL3-1/PM	LPL3-1/LA	JLD/PMB/BC	NRO/DSEA/BC	LPL3-1/BC	LPL3-1/PM
NAME	TBeltz	MHenderson	MMitchell (RKuntz for)	CCook (KERwin for)	RCarlson	TBeltz
DATE	06/02/14	06/02/14	06/09/14	06/11/14	06/17/14	06/20/14

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