



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

June 28, 2023

LICENSEE: Northern States Power Company

FACILITY: Prairie Island Nuclear Generating Plant, Units 1 and 2

SUBJECT: SUMMARY OF JUNE 5, 2023, PUBLIC MEETING WITH NORTHERN STATES POWER COMPANY REGARDING NEUTRON FLUENCE VALUES FOR REACTOR PRESSURE VESSEL WELDS

On June 5, 2023, a public meeting via webinar was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Northern States Power Company, a Minnesota corporation (NSPM, the licensee), doing business as Xcel Energy. The purpose of the meeting was to discuss changes to the neutron fluence values for reactor pressure vessel welds caused by an error in a calculation and the effect on an issued relief request (RR). The meeting notice and agenda, dated May 24, 2023, are available in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML23153A028. A list of attendees is enclosed.

During the meeting, the NRC staff asked questions to the licensee pertaining to the history of the weld fluence error, submittals to the NRC that may be affected by the error, and any additional analyses that may have been impacted by the change in fluence values, such as, upper shelf energy, pressurized thermal shock, etc. The licensee stated the following:

- History of the error: The error occurred in a vendor calculation in 2007 and was identified by the licensee in September 2021. The error was due to the vendor calculating fluence using the incorrect location of the weld above the core midplane, resulting in a lower (non-conservative) value for fluence. The actual value for fluence was determined to be approximately double the value calculated by the vendor in 2007. Following identification of the error, the licensee received a non-cited violation (NCV-2022011-03, ML22266A090), which the NRC inspection staff determined to be of very low safety significance.
- Submittals to the NRC that may have been affected by the error: The licensee stated the incorrect values were used in their license renewal application (ML081130666), application for measurement uncertainty recapture power uprate (ML093650045), and RRs 1-RR-5-10 and 2-RR-5-10 (ML19164A166).
- Additional analyses that may have been impacted: The licensee stated they had performed analyses using the correct fluence values and determined the change did not result in exceeding limits for the related parameters, such as upper shelf energy, adjusted reference temperature, and pressurized thermal shock.

The licensee's responses were consistent with the information in NCV-2022011-03.

The licensee stated resolution for RRs 1-RR-5-10 and 2-RR-5-10 was still outstanding and they were seeking NRC staff insights on how to address the use of the incorrect fluence value in the original submittal. The licensee has not utilized the alternative authorized in response to RRs 1-RR-5-10 and 2-RR-5-10 (ML19282A541) because Prairie Island, Units 1 and 2, are in the current inservice inspection interval until December 20, 2024. The NRC staff stated the alternative authorized in response to RRs 1-RR-5-10 and 2-RR-5-10 was under the cognizance of NRC inspection staff, and that the licensee would need to perform an evaluation to determine if a new licensing action is required to prevent potential future violations. The licensee stated they would perform the evaluation to determine if they need to resubmit the request using the new neutron fluence values.

No regulatory decisions were made during the meeting. Members of the public were in attendance as indicated on the enclosed list of attendees. No comments or questions from the public were received during the meeting. Public Meeting Feedback forms were not received.

Please direct any inquiries regarding this meeting summary to me at 301-415-0680 or Brent.Ballard@nrc.gov.

/RA/

Brent T. Ballard, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No(s). 50-282 and 50-306

Enclosures:
List of Attendees

cc: Listserv

LIST OF ATTENDEES

JUNE 5, 2023, PUBLIC MEETING WITH NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2

NEUTRON FLUENCE VALUES FOR REACTOR PRESSURE VESSEL WELDS

Name	Organization
Brent Ballard	U.S. Nuclear Regulatory Commission (NRC)
Michael Benson	NRC
Scott Burnell	NRC
Matthew Domke	NRC
Carolyn Fairbanks	NRC
Angela Guieb	NRC
Kevin Heller	NRC
Ed Miller	NRC
Carol Moyer	NRC
V Sreenivas	NRC
John Tsao	NRC
Carolyn Wolf	NRC
On Yee	NRC
Marc Anderson	Northern States Power Company (NSPM)
Jeffrey Kivi	NSPM
Chris Koehler	NSPM
Michael Miller	NSPM
Sara Scott	NSPM
Aaron Eberhart	Public

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POWER COMPANY REGARDING NEUTRON FLUENCE VALUES FOR
REACTOR PRESSURE VESSEL WELDS DATED JUNE 28, 2023

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BBallard, NRR	JTsao, NRR
MBenson, NRR	CWolf, OCA
SBurnell, OPA	OYee, NRR

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NRC-001

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/DORL/LPL3/BC (A)	NRR/DORL/LPL3/PM
NAME	BBallard	SRohrer	VSreenivas	BBallard
DATE	6/27/23	6/28/23	6/28/23	6/28/23

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