



November 18, 2021

L-PI-21-043 10 CFR 50.73

ATTN: Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant, Unit 2 Docket No. 50-306 Renewed Facility Operating License No. DPR-60

Prairie Island Nuclear Generating Plant (PINGP) Unit 2 Licensee Event Report 2021-001-00

Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), hereby submits Licensee Event Report (LER) 50-306/2021-001-00 per 10 CFR 50.73(a)(2)(iv)(A).

If you have any questions about this submittal, please contact Carrie Seipp, Senior Regulatory Engineer, at 612-330-5576.

### **Summary of Commitments**

This letter makes no new commitments and no revisions to existing commitments.

Christopher P. Domingos

Site Vice President, Prairie Island Nuclear Generating Plant Northern States Power Company – Minnesota

Enclosure (1)

cc: Administrator, Region III, USNRC

Project Manager, Prairie Island, USNRC Resident Inspector, Prairie Island, USNRC

State of Minnesota

### **ENCLOSURE 1**

# PRAIRIE ISLAND NUCLEAR GENERATING PLANT LICENSEE EVENT REPORT 50-306/2021-001-00

## NRC FORM 366 (08-2020)

#### U.S. NUCLEAR REGULATORY COMMISSION



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APPROVED BY OMB: NO. 3150-0104

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA. Library, and Information Collections Branch (T-6

EXPIRES: 08/31/2023

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The corrective action was an update to the SP 2083A prerequisite checklist to place the 22 Turbine Driven AFW Pump selector switch to Manual.

NRC FORM 366A (08-2020)

#### **U.S. NUCLEAR REGULATORY COMMISSION**



## LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/) APPROVED BY OMB: NO. 3150-0104

EXPIRES: 08/31/2023

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1. FACILITY NAME	2. DOCKET NUMBER		3. LER NUMBER				
Prairie Island Nuclear Generating	05000306	YEAR	SEQUENTIAL NUMBER	REV NO.			
Plant, Unit 2		2021	- 001	- 00			

#### NARRATIVE

#### EVENT DESCRIPTION

On October 3, 2021, the Prairie Island Nuclear Generating Plant (PINGP) Unit 2 was in Mode 5, Cold Shutdown, at 0 percent power with Non-Safety Related 4160 Volt buses 21 and 22 isolated for maintenance. At 1525 CDT, the 22 Turbine Driven Auxiliary Feedwater (AFW) Pump received an unplanned actuation signal while performing the prerequisite checklists of Surveillance Procedure (SP) 2083A "Unit 2 Integrated SI Test with a Simulated Loss of Offsite Power Train A" when the 22 Turbine Driven AFW Pump selector switch in the Main Control Room was placed in Shutdown Auto from Manual.

This event is reportable under 10CFR 50.73(a)(2)(iv)(A) due to a valid Pressurized Water Reactor Auxiliary Feedwater actuation signal, per NUREG 1022, Revision 3.

#### **EVENT ANALYSIS**

The 22 Turbine Driven AFW Pump is a part of the PINGP AFW System (EIIS CODE: BA). The AFW System automatically supplies feedwater to the steam generators (SG) to remove decay heat from the Reactor Coolant System upon the loss of normal feedwater supply. The AFW system is configured into two redundant trains. One train has a turbine driven AFW pump; the other has a motor driven AFW pump. One automatic start signal for the turbine driven AFW Pump is the loss of both non-safety related 4160 Volt buses that provide power to the Main Feedwater (MFW) pumps. A loss of power for both MFW pumps will start the turbine driven AFW pump to ensure that at least one SG contains enough water to serve as the heat sink for reactor decay heat and sensible heat removal following the reactor trip.

With Non-Safety Related 4160 Volt buses 21 and 22 isolated for maintenance, placing the 22 Turbine Driven AFW Pump selector switch in Shutdown Auto completed the automatic start signal causing the associated 22 Turbine Driven AFW Pump Steam Block Valve to open. The turbine and pump did not turn because the equipment was out of service with the steam supply valves closed. The 22 Turbine Driven AFW Pump Steam Block Valve then returned to the closed position on a Low Pump discharge pressure signal.

#### ASSESSMENT OF SAFETY CONSEQUENCES

The actuation signal for the 22 Turbine Driven AFW Pump did not challenge the ability to maintain safe shutdown conditions. There were no radiological, environmental, or industrial impacts associated with this event. The health and safety of the public and site personnel were not impacted during this event.

#### CAUSE OF THE EVENT

The cause of this event was a latent procedure error in SP 2083A from when the procedure was changed from testing both trains of the system to testing each of the trains separately.

#### CORRECTIVE ACTIONS

Operations updated the SP 2083A prerequisite checklist to place the 22 Turbine Driven AFW Pump selector switch to Manual.

#### PREVIOUS SIMILAR EVENTS

No previous similar events have occurred at PINGP in the prior 3 years.

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