



2807 West County Road 75
Monticello, MN 55362

December 4, 2023

L-MT-23-053
10 CFR 50.73

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

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed Facility Operating License No. DPR-22

Monticello Nuclear Generating Plant Licensee Event Report 2023-003-00

Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), hereby submits Licensee Event Report (LER) 50-263/2023-003-00 per 10 CFR 50.73(a)(2)(i)(B).

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.

A handwritten signature in black ink, appearing to read 'Greg D Brown', written over a horizontal line.

Greg D Brown
Plant Manager, Monticello Nuclear Generating Plant
Northern States Power Company – Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC
State of Minnesota

ENCLOSURE

**MONTICELLO NUCLEAR GENERATING PLANT
LICENSEE EVENT REPORT 50-263/2023-003-00**

3 pages follow



LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollections.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503; email: oira_submission@omb.eop.gov. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. Facility Name Monticello Nuclear Generating Plant	<input checked="" type="checkbox"/> 050	2. Docket Number 263	3. Page 1 OF 3
	<input type="checkbox"/> 052		

4. Title Condition Prohibited by Technical Specifications due to Inoperable Main Steam Line Low Pressure Isolation Switch
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5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved		
Month	Day	Year	Year	Sequential Number	Revision No.	Month	Day	Year	Facility Name	<input type="checkbox"/> 050	Docket Number
10	07	23	2023	- 003 -	00	12	04	23	Facility Name	<input type="checkbox"/> 052	Docket Number

9. Operating Mode 1	10. Power Level 010
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11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)

<input type="checkbox"/> 10 CFR Part 20	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 10 CFR Part 50	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 73.1200(a)
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 73.1200(b)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	<input type="checkbox"/> 73.1200(c)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.1200(d)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 10 CFR Part 21	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 10 CFR Part 73	<input type="checkbox"/> 73.1200(e)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.77(a)(1)	<input type="checkbox"/> 73.1200(f)
<input type="checkbox"/> 20.2203(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(2)(i)	<input type="checkbox"/> 73.1200(g)
<input type="checkbox"/> 20.2203(a)(2)(iv)		<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(ii)	<input type="checkbox"/> 73.1200(h)
<input type="checkbox"/> 20.2203(a)(2)(v)		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)		

☐ OTHER (Specify here, in abstract, or NRC 366A).

12. Licensee Contact for this LER

Licensee Contact Carrie Seipp, Senior Nuclear Regulatory Engineer	Phone Number (Include area code) 612-330-5576
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13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to IRIS	Cause	System	Component	Manufacturer	Reportable to IRIS
X	JM	PS	B070	Y					

14. Supplemental Report Expected				15. Expected Submission Date			Month	Day	Year
<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date)								

16. Abstract (Limit to 1326 spaces, i.e., approximately 13 single-spaced typewritten lines)
 On October 10, 2023 at 0826, with Monticello Nuclear Generating Plant in Mode 1 at 100 percent power, calibration commenced for PS-2-134B, the B1 Channel Main Steam Line Low Pressure Isolation switch. The calibration is required for the Low Main Steam Line Pressure Isolation function for Technical Specification 3.3.6.1, Primary Containment Isolation Instrumentation. The B1 Channel switch was found out of tolerance low.

On October 7, 2023 at 0228, while at 10 percent power, the plant entered Mode 1, which is the Mode of Applicability for this Technical Specification 3.3.6.1 function. The condition of inoperability of the B1 Channel was not known upon entering Mode 1 and the required technical specification actions to place this Channel in trip were not taken. This event is reportable under 10CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by TS 3.3.6.1.

The cause of the inoperability was instrument drift. The B1 Channel switch was brought within tolerance prior to completion of the B1 channel calibration procedure on October 10, 2023 at 0901.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME Monticello Nuclear Generating Plant	<input checked="" type="checkbox"/> 050	2. DOCKET NUMBER 263	3. LER NUMBER		
	<input type="checkbox"/> 052		YEAR 2023	SEQUENTIAL NUMBER 003	REV NO. 00

NARRATIVE**EVENT DESCRIPTION**

On October 10, 2023 at 0826, with Monticello Nuclear Generating Plant in Mode 1 at 100 percent power, testing commenced for PS-2-134B [EIIS CODE: JM], the B1 Channel Main Steam Line Low Pressure Isolation switch, per the quarterly Technical Specification (TS) Surveillance Requirement (SR) 3.3.6.1.4 channel calibration procedure for function 1.b. Function 1.b is the Low Main Steam Line (MSL) Pressure Isolation function for TS 3.3.6.1, Primary Containment Isolation Instrumentation. The B1 Channel switch was found out of tolerance at 641.6 psig compared to the TS allowable value of greater than or equal to 815 psig. The B1 Channel switch was brought into tolerance prior to completion of the B1 Channel switch SR 3.3.6.1.4 channel calibration procedure on October 10, 2023 at 0901.

On October 24, 2023, a review of past Operability was completed for the B1 Channel switch. The B1 Channel switch as-found and as-left values were acceptable during the previous SR 3.3.6.1.4 channel calibration procedure on July 3, 2023. Based on review of the plant process computer MSL pressure data, the B1 Channel switch acceptably tripped at greater than the TS allowable value during the September 27, 2023 Scram. However, when the plant was starting up, in Mode 2, at 4 percent power on October 7, 2023 at 0047, the data showed the B1 Channel switch reset prior to 686.7 psig. Since this switch is designed to reset at a higher pressure than the trip pressure, this was the first indication that the B1 Channel switch was below the allowable value. Since the plant mode switch was in Startup, the MSL low pressure Containment Isolation signal was bypassed.

On October 7, 2023 at 0228 while at 10 percent power, the plant entered Mode 1, which is the Mode of Applicability for Technical Specification 3.3.6.1 function 1.b. The condition of inoperability of the B1 Channel was not known upon entering Mode 1 and the required technical specification actions to place this Channel in trip were not taken.

The Primary Containment Isolation system receives inputs from four channels for the MSL Low Pressure trip function. The trip function, active only during Mode 1, uses a one-out-of-two taken twice logic to initiate isolation of all Main Steam Isolation valves (MSIVs), MSL drain valves, and recirculation sample isolation valves. One of the two A channels and one of the two B channels must trip to initiate the Primary Containment Isolation. In Mode 1, with one channel inoperable, TS 3.3.6.1 Condition A requires placing that channel in trip within 24 hours. When Condition A is not met, Condition E, as directed by Condition C and Table 3.3.6.1-1 requires entry to Mode 2 within 6 hours.

This event is reportable under 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by TS 3.3.6.1.

DATES AND APPROXIMATE TIMES OF MAJOR OCCURANCES

- July 3, 2023 at 0850: The B1 Channel switch as-found and as-left values were acceptable per the SR 3.3.6.1.4 channel calibration procedure.
- September 27, 2023 at 1041: During Reactor Scram and Group 1 isolation on C channel MSL high flow, the B1 Channel switch tripped at 925.5 psig, which is acceptably greater than the TS minimum allowable value.
- October 7, 2023 at 0047: During plant startup, the B1 Channel switch reset prior to 686.7 psig, which is less than the TS minimum allowable value.
- October 7, 2023 at 0228: Event Date. Plant mode switch was placed in run and the plant entered Mode 1.
- October 8, 2023 at 0228: The required completion time to place the B1 Channel in trip based on TS 3.3.6.1 Condition A for "One or more required channels inoperable."
- October 8, 2023 at 0828: The required completion time to be in Mode 2 due to TS 3.3.6.1 Condition E, as directed by Condition C and Table 3.3.6.1-1.

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NARRATIVE**DATES AND APPROXIMATE TIMES OF MAJOR OCCURANCES (continued)**

- October 10, 2023 at 0801: PS-2-134A, the A1 Channel MSL Low Pressure Isolation switch, SR 3.3.6.1.4 channel calibration procedure commenced and identified an acceptable as-found value.
- October 10, 2023 at 0825: The A1 Channel switch SR 3.3.6.1.4 channel calibration procedure concluded with an acceptable as-left value.
- October 10, 2023 at 0826: Discovery Date. The B1 Channel switch SR 3.3.6.1.4 channel calibration procedure commenced and identified an unacceptable as-found value of 641.6 psig.
- October 10, 2023 at 0901: The B1 Channel switch SR 3.3.6.1.4 channel calibration procedure concluded with an acceptable as-left value of 842.1 psig.
- October 24, 2023: Past Operability review concluded the B1 Channel switch was inoperable since entering Mode 1 on October 7, 2023 at 0228 until the condition was identified and corrected on October 10, 2023.
- November 20, 2023 at 0825 CST: The B1 Channel switch SR 3.3.6.1.4 procedure commenced at half of the required Surveillance Frequency and identified an acceptable as found value.
- November 20, 2023 at 0915 CST: The B1 Channel switch SR 3.3.6.1.4 procedure concluded at half of the required Surveillance Frequency with an acceptable as left value.

ASSESSMENT OF SAFETY CONSEQUENCES

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.

The Primary Containment Isolation function was maintained during the period of inoperability of the B1 Channel since at least one A Channel and one B Channel would have initiated a Primary Containment Isolation if low MSL pressure was present. The three other MSL Low Pressure Isolation Channels were operable in the condition of inoperability of the B1 Channel prior to performance of the SR 3.3.6.1.4 channel calibration procedure. When PS-2-134A, the A1 Channel MSL Low Pressure Isolation switch, was removed from service for calibration per the SR 3.3.6.1.4 channel calibration procedure prior to the testing of the B1 Channel switch, both the A2 Channel and B2 Channel were Operable.

There were no structures, systems, or components (SSCs) whose inoperability contributed to this event.

CAUSE OF THE EVENT

The cause of the failure of the B1 Channel switch was instrument drift. Since no specific failure mechanism was identified, a performance at half of the required SR 3.3.6.1.4 channel calibration procedure period was performed on November 20, 2023. The as-found and as-left values were acceptable.

CORRECTIVE ACTIONS

The B1 Channel switch was brought within tolerance prior to completion of the SR 3.3.6.1.4 channel calibration procedure on October 10, 2023.

PREVIOUS SIMILAR EVENTS

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

NOTES

All times are in Central Daylight Time (CDT) unless otherwise noted.