

March 12, 2015
BW150027

10 CFR 50.73

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

Braidwood Station, Unit 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Subject: Licensee Event Report 2015-001-00 – Main Steam Isolation Valve Technical Specifications Applicability – MSIV Operability Position Change

The enclosed Licensee Event Report (LER) is being submitted in accordance with 10 CFR 50.73, "Licensee Event Report System."

There are no regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact Mr. Phil Raush, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,



Mark Kanavos
Site Vice President
Braidwood Station

Enclosure: LER 2015-001-00

cc: NRR Project Manager – Braidwood Station
Illinois Emergency Management Agency – Division of Nuclear Safety
US NRC Regional Administrator, Region III
US NRC Senior Resident Inspector (Braidwood Station)
Illinois Emergency Management Agency – Braidwood Representative



LICENSEE EVENT REPORT (LER)

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, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollections.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME

Braidwood Station, Unit 1

2. DOCKET NUMBER

05000456

3. PAGE

1 of 4

4. TITLE

Main Steam Isolation Valve Technical Specifications Applicability - MSIV Operability Position Change

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	13	2015	2015	001	00	03	12	2015	Braidwood Station, Unit 2	05000457
									N/A	N/A

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
100	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Phil Raush – Manager, Braidwood Regulatory Assurance	TELEPHONE NUMBER (Include Area Code) (815) 417-2800
--	--

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED

YES (If yes, complete 15. EXPECTED SUBMISSION DATE) NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
N/A	N/A	N/A

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On January 13, 2015, Braidwood Station was reviewing operating experience (OE) related to Main Steam Isolation Valve (MSIV) operability and changed its previous position regarding MSIV operability. Previous MSIV operability practice considered a MSIV operable as long as one of two redundant actuator trains was operable. Revised MSIV operability practice requires both redundant MSIV actuation trains operable. Declaring a MSIV inoperable and entering MSIV TS LCO when single MSIV actuation train is inoperable is consistent with an October 19, 2006 NRC staff interpretation for different plant under a Task Interface Agreement (TIA). An extent of condition review identified two occurrences in the previous three years when a single MSIV actuator train was inoperable and not restored within the required TS 3.7.2 eight hour completion time. In these instances, TS 3.7.2 requirements were inadequately applied under the new interpretation and should have been imposed. This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications".

The cause of the event was the legacy MSIV TS and TS Bases did not explicitly address MSIV actuator trains. Corrective actions included communicating to operating crews, procedure revisions and implementing new MSIV TS providing actions for inoperable MSIV actuator trains.



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

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, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Braidwood Station, Unit 1	05000456	2015	- 001	- 00	2 of 4

NARRATIVE

A. Plant Condition Prior to Event

Event Date/Time: January 13, 2015 / 1619 hours CST

Unit 1: Mode 1 - Power Operations, Reactor Power 100 percent
 Unit 2: Mode 1 - Power Operations, Reactor Power 100 percent

Reactor Coolant System [AB]: Normal operating temperature and pressure. There was no inoperable equipment that contributed to this event.

B. Description of Event

On January 13, 2015, Braidwood Station was reviewing operating experience (OE) related to Main Steam Isolation Valve (MSIV) operability and changed its previous position regarding MSIV operability. The previous MSIV operability practice considered an MSIV operable as long as one of the two redundant actuator trains was operable. The revised MSIV operability practice requires both redundant MSIV actuation trains operable. The specific OE reviewed was a January 11, 2015 Byron event where Technical Specification (TS) 3.7.2, "MSIVs," was entered for the Unit 2 Train 'A' MSIV due to one of the associated redundant actuator trains being inoperable. The MSIV operability position change was predicated on industry experience and an NRC staff interpretation that Surveillance Requirement 3.7.2.2 requires both actuator trains for a single valve to be tested. (Reference NRC Memorandum, "Operability Determination for the Callaway Plant Technical Specifications Requirements When One Main Steam Isolation Valve Actuator Train is Removed from Service," dated October 19, 2006 (ADAMS Accession Number ML061730396)).

Braidwood Station took immediate actions to communicate the MSIV operability position change to operating crews.

An extent of condition review identified two occurrences at Braidwood Station in the prior three years where an MSIV actuation train was inoperable and the inoperable train was not restored within the eight hour completion time required by TS 3.7.2, Condition A.

Event Timeline:

On May 28, 2012, the 1A MSIV active accumulator was found below the operability pressure limit due to a failed 4-way shuttle valve. The active accumulator was repaired on May 31, 2012, approximately 48 hours later. This restoration time exceeded the eight hour completion time of TS 3.7.2, Condition A. During this MSIV accumulator failure event, the previous operability position for considering MSIV operable with one accumulator inoperable was challenged. As a result, actions were initiated to submit License Amendment Request (LAR) revising MSIV TS 3.7.2 to add separate Conditions and Required Actions for inoperable MSIV actuation trains.

On July 10, 2013 the 2A MSIV standby accumulator was found below the operability pressure limit due to a failed 4-way shuttle valve. The standby accumulator was repaired on July 11, 2013. This restoration time exceeded the eight hour completion time of TS 3.7.2, Condition A.

On August 21, 2013, LAR (ADAMS Accession Number ML13235A095) was submitted incorporating requirements specifically for the MSIV actuator trains within TS 3.7.2 such that the specification includes Conditions and Required Actions for inoperable MSIV actuator trains. During the LAR development, Braidwood Station became aware of the October 19, 2006 NRC memorandum regarding MSIV operability position at Callaway. This was a missed opportunity

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Braidwood Station, Unit 1	05000456	YEAR	SEQUENTIAL NUMBER	REV NO.	3 of 4
		2015	- 001	- 00	

NARRATIVE

to change MSIV operability position during the LAR development. However, this would not have precluded the two previous events.

On January 13, 2015, Braidwood Station reviewed OE regarding MSIV operability and changed previous MSIV operability position requiring only one MSIV actuation train operable. During this timeframe, Operations shift was notified of the MSIV operability position change and actions were initiated to conduct a three year historic review for events where a MSIV actuation train was inoperable for greater than eight hours for reportability.

The May 28, 2012 and July 10, 2013 events are reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications" due to TS 3.7.2 Condition A Required Action not being completed within the Completion Time. During these events Braidwood Station TS 3.7.2 did not specifically address or reflect the two independent MSIV actuator trains. Inoperability of one of the two actuator trains associated with a MSIV does not by itself make the valve incapable of closing since the remaining operable actuator train can alone effect valve closure on demand. The NRC staff interpretation results in declaring a MSIV inoperable for those plants with dual MSIV actuator trains when one actuator train is inoperable. The previous TS 3.7.2 eight hour Completion Time for an inoperable MSIV did not provide reasonable amount of time to implement actuator train repairs. Declaring a MSIV inoperable and entering the Condition(s) and Required Action(s) due to one inoperable actuator train was unnecessarily restrictive. To address this condition, Braidwood Station submitted a LAR on August 21, 2013 (ADAMS Accession Number ML13235A095) incorporating requirements specifically for the MSIV actuator trains within TS 3.7.2 such that the specification includes Conditions and Required Actions addressing inoperable MSIV actuator trains. This Braidwood Station LAR was approved by the NRC on January 30, 2015 and implemented on February 04, 2015.

C. Cause of Event

The cause of the event was the legacy MSIV TS and TS Bases did not explicitly address MSIV actuator trains. The previous MSIV operability practice was based on the following factors:

1. The original MSIV TS 3.7.2 did not explicitly address the MSIV actuator trains.
2. The redundancy in the MSIV actuator design permits an MSIV to close on demand, with one actuator train unavailable.

D. Safety Significance

This event is not considered an event or condition that could have prevented fulfillment of a safety function.

The Braidwood Station events from May 28, 2012 and July 11, 2013 document a single MSIV actuator train inoperable for approximately two days and one day respectively which is consistent with the revised TS 3.7.2 which allows single MSIV actuator train inoperable for up to seven days. These two events are bound by the probabilistic risk analysis (PRA) conducted for the NRC approved MSIV LAR providing a seven day completion time for one MSIV actuator train.

E. Corrective Actions

Revised MSIV operability position communicated to operating crews.

LAR submitted on August 21, 2013 incorporating requirements specifically for the MSIV actuator trains within TS 3.7.2 such that the specification would include Conditions and Required Actions to address inoperable MSIV actuator trains. This LAR was approved by the NRC on January 30, 2015 and implemented on February 04, 2015.

Operating procedures for the MSIV TS change have been approved and implemented.

Training conducted for all licensed operators on the revised MSIV TS 3.7.2 Condition(s) and Required Action(s).

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Braidwood Station, Unit 1	05000456	YEAR	SEQUENTIAL NUMBER	REV NO.	4 of 4
		2015	- 001	- 00	

NARRATIVE

F. Previous Occurrences

No previous similar events are known.