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10 CFR 50.73

November 7, 2005
BW050102

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

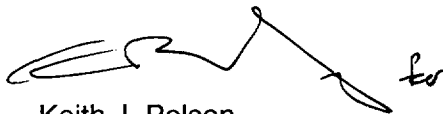
Braidwood Station, Unit 1
Facility Operating License No. NPF-72
NRC Docket No. STN 50-456

Subject: Submittal of Licensee Event Report Number 2005-002-00, Braidwood Unit 1 –
“Feedwater Isolation Valve 1FW039A Fails to Stroke in the Required Time Due to
Failure of Valve Air Regulator to Maintain Set Pressure”

The enclosed Licensee Event Report (LER) is being submitted in accordance with 10 CFR 50.73, “Licensee event report system”, paragraph (a)(2)(i)(B). 10 CFR 50.73(a) requires an LER to be submitted within 60 days after discovery of the event; therefore, this report is being submitted by November 7, 2005.

Should you have any questions concerning this submittal, please contact Mr. Dale Ambler, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,



Keith J. Polson
Site Vice President
Braidwood Station

Enclosure: LER Number 2005-002-00

cc: Regional Administrator - Region III
NRC Braidwood Senior Resident Inspector

IE22

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollect@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, Unit 1

2. DOCKET NUMBER

05000456

3. PAGE

1 of 3

4. TITLE

Braidwood Unit 1 – Feedwater Isolation Valve 1FW039A Fails to Stroke in the Required Time Due to Failure of Valve Air Regulator to Maintain Set Pressure

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
9	06	2005	2005	- 002 -	00	11	07	2005	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)
10. POWER LEVEL	<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)
	<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

NAME

Michael Smith, Engineering Director

TELEPHONE NUMBER (Include Area Code)

(815) 417-3800

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
E	SJ	RG	Fisher	Y	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

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

On September 6, 2005, feedwater isolation valve 1FW039A failed its quarterly stroke time test with a measured stroke time of 6.58 seconds and a Technical Specification limit of 6.0 seconds. 1FW039A was declared inoperable and Technical Specification Limiting Condition for Operation (LCO) 3.6.3 Condition C was entered. In accordance with LCO 3.6.3 Condition C, the upstream isolation valve, 1FW041A was closed and administrative actions were taken to ensure 1FW039A and 1FW041A remained in the closed position.

The cause of the failed stroke time for 1FW039A was foreign material entry into the regulator main seat area. This caused the regulator supply pressure to be greater than its setpoint, and resulted in additional time for the actuator and solenoid valves to exhaust the supplied air to allow the valve to close.

There were no safety consequences impacting plant or public safety as a result of this event.

This event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Braidwood, Unit 1	05000456	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2005	- 002	- 00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)**A. Plant Operating Conditions Before The Event:**

Event Date: September 06, 2005

Event Time: 1312

Unit: 1

MODE: 1

Reactor Power: 99.9 percent

Unit 1 Reactor Coolant System (RCS) [AB] Temperature: 587 degrees F, Pressure: 2238 psig

B. Description of Event:

There were no additional structures, systems or components inoperable at the beginning of the event that contributed to the severity of the event.

On August 3, 2005, it was identified that feedwater isolation valves (FW) [SJ] 1FW039A-D had not been stroke timed in accordance with the In-Service Testing (IST) Program. Surveillance Requirement (SR) 3.0.3 was entered for valves 1FW039A-D due to the stroke time surveillances not being performed within the required time frame. SR 3.0.3 requires that the valves be stroke timed within 92 days from the date of discovery of the missed surveillance.

Following replacement of the Unit 1 steam generators in 1998, the IST Program was revised to require that valves 1FW039A-D be stroke timed quarterly versus every cold shutdown. The station predefine program had not been changed to reflect this and 1FW039A-D continued to be stroke timed on a cold shutdown frequency. The predefines were subsequently revised to correctly require quarterly stroke timing of the 1FW039A-D valves.

On September 6, 2005, the stroke time test of 1FW039A was performed. The measured stroke time was 6.58 seconds. The Technical Specification Limit is 6.0 seconds. Based on the surveillance stroke time result for 1FW039A being greater than 6.0 seconds, the valve was declared inoperable and Technical Specification Limiting Condition for Operation (LCO) 3.6.3 Condition C was entered. In accordance with LCO 3.6.3 condition C, the upstream isolation valve, 1FW041A, was closed and administrative actions were taken to ensure 1FW039A and 1FW041A remained in the closed position.

On September 9, 2005, troubleshooting determined that the 1FW039A regulator output pressure was 109 psig versus a required supply air pressure of 80 psig. The regulator could not be adjusted and was replaced with a new regulator with a setpoint of 80 psig.

On September 10, 2005, 1FW039A was stroked with a stroke time of 5.18 seconds. Based on the acceptable stroke time results, the LCO was exited.

Valves 1FW039B-D were stroke tested with acceptable stroke times and each of the regulator settings were verified to be approximately 80 psig. This indicated that none of the other regulators were supplying unregulated air to the various valve actuators similar to 1FW039A.

C. Cause of Event

The cause of the failed stroke time for 1FW039A was the high air supply pressure that resulted in more time for the actuator and solenoid valves to exhaust the supplied air to allow the valve to close. The cause of the regulator supply pressure being greater than the setpoint of 80 psig was foreign material entry of a small piece of wire and a small piece of very hard plastic into the regulator main seat area. The small piece of wire is believed to have come

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

from a wire brush sometimes used by maintenance personnel for cleaning pipe/joint threads. The origin of the small piece of hard plastic could not be confirmed. The actuator was last overhauled and the regulator was replaced during the maintenance performed in October, 2001. Stroke time surveillances since the regulator was replaced (three occurrences) indicate that the valve was operating properly since that date. Introduction of the small piece of wire and plastic is believed to be an isolated case.

D. Safety Consequences:

There were no safety consequences impacting plant or public safety as a result of this event. The 1FW039A-D valves are normally closed and not required to be opened for any required functions. Upon failure to meet the Technical Specification requirement for stroke time, the upstream isolation valve was isolated in accordance with Technical Specifications.

This event did not result in a safety system functional failure.

E. Corrective Actions:

Corrective Actions include pursuing replacement of the 1FW039A-D valve non relief type regulators with relief type regulators and filters. The revision to the station predefine program to correctly require quarterly stroke timing of the 1FW039A-D valves has been completed.

F. Previous Occurrences:

There have been no previous similar events at Braidwood Station causing the FW039 valves to fail stroke time tests.

G. Component Failure Data:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model</u>	<u>Mfg. Part Number</u>
Fisher	Regulator	95H	95H-41