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10 CFR 50.73

February 25, 2009
BW090021

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

Braidwood Station, Unit 2
Facility Operating License No. NPF-77
NRC Docket No. STN 50-457

Subject: Licensee Event Report 2008-002-00 – Reactor Trip on Unit Auxiliary Transformer 241-1
Sudden Pressure Relay Actuation Due to 2C Heater Drain Pump Motor Electrical Fault

The enclosed Licensee Event Report (LER) is being submitted in accordance with 10 CFR 50.73, "Licensee event report system," paragraph (a)(2)(iv)(A), as an event that resulted in a valid actuation of the reactor protection system and auxiliary feedwater system. On December 27, 2008, due to an actuation of a unit auxiliary transformer sudden pressure relay, Braidwood Station Unit 2 received an actuation of the reactor protection system (reactor trip) and the auxiliary feedwater system. 10 CFR 50.73(a) requires an LER to be submitted within 60 days following discovery of the event. Therefore, this report is being submitted by February 25, 2009.

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

Respectfully,



Bryan Hanson
Site Vice President
Braidwood Station

Enclosure: LER 2008-002-00

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: 80 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 infocollects@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 2	2. DOCKET NUMBER 05000457	3. PAGE 1 of 3
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4. TITLE Reactor Trip on Unit Auxiliary Transformer 241-1 Sudden Pressure Relay Actuation Due to 2C Heater Drain Pump Motor Electrical Fault

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
12	27	2008	2008	002	00	02	25	2009	N/A	N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	N/A

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: <i>(Check all that apply)</i>			
10. POWER LEVEL 100	<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)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" 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 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

FACILITY NAME David Gullott, Regulatory Assurance Manager	TELEPHONE NUMBER <i>(Include Area Code)</i> (815) 417-2800
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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
D	SN	MBX	W120	Y	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i> <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH N/A	DAY N/A	YEAR N/A
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ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On December 27, 2008, at 14:18 hours, Braidwood Unit 2 Unit Aux Transformer 241-1 sudden pressure relay actuated causing a Unit 2 main generator trip, which resulted in a Unit 2 main turbine trip and subsequent Unit 2 reactor trip. Concurrent with the reactor trip, the 2C heater drain pump (HD) tripped on phase "A" and "C" phase over current.

Operator response to the trip was proper and all safety related systems, structures and components operated normally during this event. The auxiliary feedwater system actuated, as expected, to maintain steam generator levels.

The investigation of this event determined the initiating event to the reactor trip was a phase-to-phase motor fault at the 2C HD pump motor terminal housing box, which caused a trip of the 2C HD pump on phase over current. Inspection of the motor lead box found the motor lead from one phase ("A" phase) in contact with the bus bar for another phase ("C" phase) due to excessive motor lead length. The root cause of the HD pump trip was determined to be that the procedure guidance for trimming the motor leads was deficient in that a lack of adequate information was provided for the desired motor lead length. The corrective action to prevent recurrence is to revise the existing procedure to provide clear direction on the desired length of power cables.

There were no actual 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)(iv)(A) due to actuation of the reactor protection system (reactor trip) and the auxiliary feedwater system.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Braidwood, Unit 2	05000457	YEAR	SEQUENTIAL NUMBER	REV NO.	3 of 3
		2008	- 002 -	00	

NARRATIVE

Investigation determined that there was no specific guidance in any applicable procedure that provides direction on the proper length of conductors. Therefore, the root cause of the HD trip was determined to be that the procedure guidance for trimming the motor leads was deficient in that a lack of adequate information was provided for the desired motor lead length.

D. Safety Consequences:

There were no safety consequences impacting plant or public safety as a result of this event. All safety related systems, structures and components operated normally during this event.

The UAT sudden pressure relays trip the main generator and its associated output breakers in order to isolate the transformer from fault current sources and protect the generator. A main generator trip initiates a turbine trip, resulting in a reactor trip above 30 percent power. The reactor trip is necessary due to a loss of the secondary heat sink for the reactor coolant system. Thus, the actuation of the reactor protection system was valid for this plant condition and occurred without incident.

During the reactor shutdown, all required safety systems responded appropriately. There was no loss of any function that would have prevented fulfillment of actions necessary to 1) Shutdown the reactor and maintain it in a safe shutdown condition, 2) Remove residual heat, 3) Control the release of radioactive material, or 4) Mitigate the consequences of an accident.

The UATs are part of the non-Class 1E auxiliary power system and are not credited in the mitigation of any postulated design basis accidents. The non-safety related HD pumps provide a portion of the condensate flow to the main feedwater system and also are not credited in the mitigation of any postulated design basis accidents.

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

E. Corrective Actions:

The corrective action to prevent recurrence is to revise the existing procedure to provide clear direction on the desired length of power cables.

F. Previous Occurrences:

There have been no similar Licensee Event Report events at Braidwood Station in the last three years.

G. Component Failure Data:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model</u>	<u>Mfg. Part Number</u>
Westinghouse	Heater Drain Pump Motor Terminal Housing	NA	N/A