



Commonwealth Edison  
Braidwood Nuclear Power Station  
Route #1, Box 84  
Braceville, Illinois 60407  
Telephone 815/466-2801

April 30, 1992  
BW/92-0218

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Dear Sir:

The enclosed Licensee Event Report from Braidwood Generating Station is being transmitted to you in accordance with the requirement of 10CFR50.73(a)(2)(i)(B) which requires a 30-day written report.

This report is number 92-005-00, Docket No. 50-456.

Very truly yours,

K. L. Kotron  
Station Manager  
Braidwood Nuclear Station

KLK/DN/dla  
550/ZD85G

Encl.: Licensee Event Report  
No. 92-005-00

cc: NRC Region III Administrator  
NRC Resident Inspector  
INPO Record Center  
CECo Distribution List

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PDR ADOCK 05000456  
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LICENSEE EVENT REPORT (LER)											Form Rev 2.0		
Facility Name (1) Braidwood								Docket Number (2) 0   5   0   0   0   4   5   6			Page (3) 1   of   0   3		
Title (4) Entry into Technical Specification 3.0.3 due to Pressure Channel Failure													
Event Date (5)			LER Number (6)				Repr. Date (7)			Other Facilities Involved (8)			
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names		Docket Number(s)		
0   4	0   3	9   2	9   2	0   0   5	0   0	0   4	0   0	9   2	None		0   5   0   0   0   1   1		
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)										
POWER LEVEL (10) 1   0   0			20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)				
			20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)				
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		Other (Specify in Abstract below and in Text)				
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)						
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)						
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)						
LICENSEE CONTACT FOR THIS LER (12)													
Name C. Walrath, Shift Engineer								TELEPHONE NUMBER AREA CODE 8   1   5   4   5   8   -   2   8   1   1					
Ext. 2202													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)													
CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS				
X	A   B	*   *   P   T	B   0   B   0	YES									
SUPPLEMENTAL REPORT EXPECTED (14)											Expected Submission Date (15)		
Yes (If yes, complete EXPECTED SUBMISSION DATE)											X   NO		
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)													

On April 3, 1992, during planned maintenance for replacement of a degraded power supply, Nuclear Instrumentation System Power Range Channel N-41 was declared inoperable at 0224. With N-41 inoperable, the power range input to the Loop 1A Overtemperature Delta Temperature (OTDT) reactor protection function was inoperable. At 0930 a scan of the control room indications revealed that Pressurizer Pressure Channel 1PI-458 was reading approximately 2300 psig and above the deviation limit of 6%. The channel was declared inoperable. Since this channel provides an input to OTDT, the Loop 1D OTDT was also inoperable. With 2 channels of OTDT inoperable, Technical Specification 3.0.3 was entered. Actions were taken to return N-41 to service so that the Loop 1A OTDT could be restored. At 1254, N-41 was declared operable and the Loop 1A OTDT was returned to an operable condition. Technical Specification 3.0.3 was then exited. The cause of the event was component failure. The transmitter was replaced. 1PI-458 was returned to service and declared operable at 0530 on April 4, 1992.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		Year	///	Sequential Number	///	Revision Number				
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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: Braidwood 1; Event Date: April 03, 1992; Event Time: 0930  
 Mode: 1 - Power Operation, Rx Power: 100%;  
 RCS [AB] Temperature / Pressure: NOT/NOP;

B. DESCRIPTION OF EVENT:

There are 4 independent Pressurizer [AB] Pressure Channels, 1PI-455A, 1PI-456, 1PI-457, 1PI-458 that are required to be checked at least once every 12 hours during Mode 1 to satisfy Technical Specification operability requirements. Administratively, these four pressure channels are checked once every 8 hours during each shift. In the control room, the range of these channels is 1700-2500 psig. A channel check compares the output of each pressure channel and the values are recorded on operating surveillance 1BwOS 0.1-1,2,3. The allowable deviation between channels is limited to 3% of the indicated span (24 psig) before corrective action, i.e. maintenance, is considered. A channel deviation of greater than 3% shall be reviewed by a SRO to determine the acceptability of the channel check. The results of the evaluation shall be recorded on the applicable data sheet. At a deviation of 6% (48 psig), the failed channel is declared inoperable.

On April 2, 1992 pressure channel 1PI-458 had been recalibrated and returned to service at 1850 within allowed tolerance levels.

On April 3, 1992, during planned maintenance for replacement of a degraded power supply, Nuclear Instrumentation System [IG] Power Range Channel N-41 was declared inoperable at 0224. The applicable Technical Specification action statement was entered. Limiting Condition for Operation Action Requirement (LCOAR) 1BwOS 3.1-1a was used to track the actions required by Technical Specifications during N-41 inoperability. With N-41 inoperable, the power range input to the Loop 1A Overtemperature Delta Temperature (OTDT) reactor protection function was removed. Loop 1A OTDT was declared inoperable and OTDY bistable 411C was placed into a tripped condition to comply with the Technical Specification requirement for OTDT.

During the Shift 1 channel check for pressurizer pressure, the following values were recorded for the channels on 1BwOS 0.1-1,2,3.

1PI-455A: 2235 psig  
 1PI-456: 2235 psig  
 1PI-457: 2230 psig  
 1PI-458: 2255 psig

At 0930 a scan of the control room indications revealed that 1PI-458 was reading approximately 2300 psig and above the deviation limit of 6%. The channel was declared inoperable with LCOAR's 3.1-1a and 3.2-1a entered to track the actions required by technical Specifications. Since this channel provides an input to OTDT, the Loop 1D OTDT was also inoperable. With 2 channels of OTDT inoperable, Technical Specification 3.0.3 and LCOAR 0.3-2a were entered.

Compliance with this specification required that the unit be placed in Mode 3 (Hot Standby) by 1630. Actions were taken to return N-41 to service so that the Loop 1A OTDT could be restored. At 1254, N-41 was declared operable and the Loop 1A OTDT was returned to an operable condition. Technical Specification 3.0.3 and LCOAR 0.3-2a were then exited.

This event is being reported pursuant to 10CFR50.73(a)(2)(i)(B) - any operation prohibited by the plant's Technical Specifications.

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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

C. CAUSE OF EVENT:

The cause of the event was component failure. During the review of the pressure trend, it was determined that the pressure started to immediately increase after 1PI-458 was returned to service. During the Shift 1 channel check, the deviation exceeded 3%. However, no evaluation of the deviation was documented on the surveillance data sheet. This factor contributed to the length of time that the channel failure went undetected.

D. SAFETY ANALYSIS:

This event had no effect on the safety of the plant or the public. Redundant channels of reactor protection for OTDT and pressurizer pressure were operable and available to provide indication and initiate protective actions. If the Loop 1A OTDT had not been restored, the control room operators would have commenced an orderly plant shutdown to place the unit in a mode where OTDT was not required.

E. CORRECTIVE ACTIONS:

A Nuclear Work Request was written to replace the failed transmitter. The transmitter was replaced and calibrated. Following the completion of post-maintenance testing, 1PI-458 was declared operable and returned to service at 0530 on April 4, 1992. LCOAR's 3.1-1a and 3.2-1a were exited.

Operator aids have been placed at each unit to increase the awareness of acceptable channel deviation limits. Prior to this event, the aid was primarily available to the SRO. Operating management has discussed the event with the individuals involved stressing the need to carefully evaluate and document channel deviations on the surveillance data sheet.

F. PREVIOUS OCCURRENCES:

A search of previous LERs identified previous occurrences of pressure transmitter failures. Also, several similar (non-reportable) events relating to pressure transmitter failures were identified. An evaluation of this transmitter model is in progress and is being tracked to completion by Action Item No. 457-200-88-13301.

G. COMPONENT FAILURE DATA:

Manufacturer	Nomenclature	Model Number
Barton	Pressure Transmitter	703