



Commonwealth Edison
Braidwood Nuclear Power Station
Route #1, Box 84
Braceville, Illinois 60407
Telephone 815/458-2801

July 26, 1991
BW/91-0627

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

Dear Sir:

The enclosed Supplemental Licensee Event Report from
Braidwood Generating Station is being transmitted to you in accordance
with the requirements of 10CFR50.73(a)(2)(iv).

This report is number 90-013-01; Docket No. 50-456.

Very truly yours,

K. L. Kofron
Station Manager
Braidwood Nuclear Station

KLK/JDW/clf
(226/ZD85G)

Enclosure: Licensee Event Report No. 90-013-01

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

9107300168 910726
PDR ADCK 05000456
S PDR

IE22
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SUPPLEMENT TO DVR

APPROVED
JUL 23 1986

DVR NO.
STA UNIT YEAR NO.
D - 20 - 1 - 90 - 031

BRAIDWOOD
ON-SITE REVIEW

PART 1 TITLE OF EVENT

OCCURRED

Feedwater Isolation Actuation Due to
Spurious Actuation of the Train B
Feedwater Isolation Circuitry

8/11/90 1430
DATE TIME

REASON FOR SUPPLEMENTAL REPORT

To include an additional PW Isolation actuation signal that was inadvertently
omitted from the previous report.

PART 2

ACCEPTANCE BY STATION REVIEW

DATE

SUPPLEMENTAL REPORT APPROVED
AND AUTHORIZED FOR
DISTRIBUTION

STATION MANAGER

Date

(Final)

1

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)	Docket Number (2)	Page (3)
Braidwood 1	0 5 0 0 0 4 5 6	1 of 0 3

Title (4)
Feedwater Isolation Due to Spurious Actuation of the Train B Feedwater Isolation Circuitry

Event Date (5)				LER Number (6)			Report Date (7)			Other facilities Involved (8)	
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)	
0 8	1 1	9 0	9 0	0 1 3	0 1	0 7	2 6	9 1	None	0 5 0 0 0 1 1	

OPERATING
MODE (9)

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR
(Check one or more of the following) (11)

POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	X	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
		20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	in Abstract
		20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)	below and in
		20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)	Text)

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
Paul Stanczak, Tech Staff Engineer	AREA CODE 8 1 5 4 5 8 - 2 8 0 1
Ext. 2486	

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

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15)	Month Day Year

Yes (If yes, complete EXPECTED SUBMISSION DATE) X | NO

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Steam Generator (SG) levels were being controlled manually with flow through the Feedwater (FW) tempering line flow control valves, 1FW035A, B, C, and D. At 1430 on August 11, 1990 the Unit 1 Nuclear Station Operator (NSO) observed that valves 1FW035A, B, C, and D had isolated. No alarms annunciated for the isolation. The status light for the B Train Feedwater Isolation was illuminated. After verifying that a Feedwater Isolation condition did not exist, the NSO reset the feedwater isolation and re-established flow to the Steam Generators through the 1FW035A, B, C, and D. At 1311 on August 13, 1990 Braidwood Unit 1 Operating Surveillance (1BW05) 3.1.1-21, "Unit 1 SSPS, Reactor Trip Breaker, and Reactor Trip Bypass Breaker Bi-Monthly (Staggered) Surveillance (Train B)", was performed to test train B Solid State Protection System (SSPS). At 1321, during the surveillance, a NSO noticed that the status light for the B Train Feedwater Isolation was illuminated. The surveillance was exited. At 1433 surveillance 1BW05 3.1.1-21 was restarted. The surveillance was completed at 1533 and it was concluded that Train B SSPS functioned properly since the event did not repeat. The root cause of this event has been attributed to a spurious actuation of the Feedwater Isolation circuitry within the B Train of SSPS. The B Train of SSPS was tested in an attempt to reproduce the event. Train B SSPS was found to be functioning properly and has performed satisfactorily since that time. The event could not be repeated. There have been no previous similar occurrences.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION											Form Rev 2.0	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)				
		Year	///	Sequential Number	///	Revision Number						
Braidwood 1	0 5 0 0 0 4 5 6	9 0	-	0 1 3	-	0 1	0 2	OF	0 3			
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: August 11, 1990; Event Time: 1430;
 Mode: 4 - Hot Shutdown; Rx Power: 0%;
 RCS [AB] Temperature/Pressure: 324 degrees F/370 psig

B. DESCRIPTION OF EVENT:

There were no systems or components inoperable at the beginning of the event which contributed to the severity of the event.

Steam Generator (SG) [AB] levels were being controlled manually with flow through the Feedwater (FW) [SJ] tempering line flow control valves, 1FW035A, B, C, and D.

At 1430 on August 11, 1990 the Unit 1 Nuclear Station Operator (NSO) (Licensed Reactor Operator) observed that valves 1FW035A, B, C, and D had isolated. No alarms annunciated for the isolation. The status light for the B Train Feedwater Isolation was illuminated. After verifying that a feedwater isolation condition did not exist, the NSO reset the Feedwater isolation and re-established flow to the Steam Generators through the 1FW035A, B, C, and D. Stable Plant conditions were maintained throughout the event.

The appropriate NRC notification via the ENS phone system was made at 1722 pursuant to 10CFR50.72(b)(2)(ii).

At 0757 on August 12, 1990 Unit 1 entered Mode 3 - Hot Standby.

At 1311 on August 13, 1990 Braidwood Unit 1 Operating Surveillance (1BwOS) 3.1.1-21, "Unit 1 SSPS, Reactor Trip Breaker, and Reactor Trip Bypass Breaker Bi-Monthly (Staggered) Surveillance (Train B)", was performed to test train B Solid State Protection System (SSPS). At 1321, during the surveillance test, a NSO noticed that the status light for the B Train Feedwater Isolation was illuminated. The signal was reset, and the surveillance procedure was exited prior to completion.

The appropriate NRC notification via the ENS phone system was made at 1420 pursuant to 10CFR50.72(b)(ii).

At 1433 surveillance 1BwOS 3.1.1-21 was restarted in an attempt to duplicate the feedwater isolation. The surveillance was completed at 1533 and it was concluded that Train B SSPS functioned properly since the event did not repeat.

This event is being reported pursuant to 10CFR50.73(a)(2)(iv) - any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature, including the Reactor Protection System.

C. CAUSE OF EVENT:

The root cause of this event has been attributed to a spurious actuation of the Feedwater Isolation circuitry within the B Train of SSPS.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Braidwood 1	0 5 0 0 0 4 5 6	9 0	-	0 1 3	-	0 1	0 3 OF 0 3

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

D. SAFETY ANALYSIS:

This event had no effect on the safety of the plant or the public. The protective function provided by a Feedwater Isolation was not required and was inappropriate for the existing plant conditions.

Under worst case conditions of the plant operating at 100% power with a spurious feedwater Isolation occurring there would be no effect as this is enveloped in the Updated Final Safety Analysis Report. A reactor trip would be initiated on Low SG level and an automatic initiation of the Auxiliary Feedwater (AF)(BA) System would occur. The functional design of the AF system provides the capability for the removal of the decay heat that would be generated from a Reactor Trip and Feedwater Isolation initiated at End of Life decay heat conditions from either of the two redundant AF pumps. Both AF pumps were operable and available throughout this event.

E. CORRECTIVE ACTIONS:

The feedwater Isolation was reset and FW flow was re-established to the Steam Generators.

The B Train of SSPS was tested in an attempt to reproduce the event. Train B SSPS was found to be functioning properly and has performed satisfactorily since that time. The event could not be repeated.

F. PREVIOUS OCCURRENCES:

There have been no previous similar occurrences.

G. COMPONENT FAILURE DATA:

This event was not the result of component failure, not did any components fail as a result of this event.