

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 2 5 1 OF 0 2										PAGE (3) 1 OF 0 2									
TITLE (4) Primary Containment Groups 1 and 8 Isolations and Automatic Core Spray Initiation During Refueling/Maintenance Outage																													
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											
0 8		2 6		8 5		8 5		0 4		7 0		0 9		2 5		8 5		DOCKET NUMBER(S) 0 5 0 0 0											
0 8		2 6		8 5		8 5		0 4		7 0		0 9		2 5		8 5		0 5 0 0 0											
OPERATING MODE (9) 5						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (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)						50.38(e)(1)						50.73(a)(2)(v)						73.71(c)					
						20.405(a)(1)(ii)						50.38(e)(2)						50.73(a)(2)(vii)						X OTHER (Specify in Abstract below and in Text, NRC Form 366A)					
						20.405(a)(1)(iii)						50.73(a)(2)(i)						50.73(a)(2)(viii)(A)						Special Report					
						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)(ix)																	
LICENSEE CONTACT FOR THIS LER (12)																													
NAME M. J. Pastva, Jr., Regulatory Technician												TELEPHONE NUMBER 9 1 9 4 5 7 - 2 3 1 5																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																													
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPROS		CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NPROS											
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)

On 8-26-85, at 1520, with Unit 1 in a refuel/maintenance outage, auto-initiation of 1A and 1B core spray (CS) and auto-start of diesel generators 1-4 occurred due to a LOCA signal. A primary containment Group 1, auto-isolation of the Reactor Building Ventilation System, and auto-start of the Reactor Building Standby Gas Treatment (SBGT) train 1B occurred due to a low level No. 2 signal. SBGT train 1A and the Residual Heat Removal (RHR) System pumps of the B low pressure coolant injection (LPCI) loop were under equipment clearance and the A LPCI loop was in shutdown cooling. The reactor head was removed, the reactor cavity flooded, and the fuel pool gates removed. The CS pumps were secured shortly after event discovery.

The LOCA signal resulted from a low level No. 3 signal from reactor level instruments N031A and C. The instruments saw a pressure spike on their common reference sensing leg, which is shared by reactor pressure instrument N021A. N021A was being returned to service following testing when residual pressure from test equipment vented into the subject reference sensing leg causing the pressure spike.

The subject test procedure regarding N021A has been revised to ensure venting prior to returning to service. Involved plant technicians have been counseled to exercise careful manipulations and caution during future similar testing evolutions.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Brunswick Steam Electric Plant Unit 1	0 5 0 0 0 3 2 5 8 5 —	0	4	7	—	0	0 0 2 OF 0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

On August 26, 1985, at 1520, while Unit 1 was in a refueling/maintenance outage, a reactor low level No. 3 LOCA signal occurred resulting in automatic initiation of 1A and 1B Core Spray (CS) Systems. Emergency ac diesel generators 1-4 automatically started on the LOCA signal and a primary containment Group 1 isolation occurred on a low level No. 2 signal. Per design, the Reactor Building Ventilation System automatically isolated and train 1B of the Standby Gas Treatment (SBGT) System automatically started due to the low level No. 2 signal. SBGT train 1A and the Residual Heat Removal (RHR) System pumps of the low pressure coolant injection (LPCI) loop B were under equipment clearance. The LPCI loop A, which was in reactor shutdown cooling, automatically isolated due to the LOCA signal. In addition, the reactor vessel head was removed, the reactor refueling cavity flooded, and the fuel pool gates were removed. The CS pumps were immediately secured following discovery of the event. The Unit 1 Control Operator became cognizant of the event through Control Room annunciation.

The initiating cause of this event is attributed to inadequate venting of pressure from test equipment used to perform response time testing of reactor pressure instrument B21-PT-N021A. N021A was isolated from the instrument process sensing legs prior to the subject testing. Following completion of testing when N021A was returned to service, pressure which was trapped in the instrument due to inadequate venting of the test equipment was released into the instrument reference sensing leg. N021A shares a common reference sensing leg with reactor level instruments B21-LT-N024A-2, B-2 and B21-LT-N031A, C. Consequently, a pressure spike occurred in the level instrument's common reference sensing leg causing them to see false levels and initiate the incurred reactor low level Nos. 2 and 3 and the LOCA signal.

Following this event, the test procedure relative to N021A was appropriately revised to better ensure adequate venting of testing equipment prior to completion of such testing and return of the instrument to service. In addition, the involved plant technicians were counseled to be cognizant of the design characteristics of instrument sensing lines and to exercise caution and utilize careful manipulations when performing similar evolutions.

This report satisfies the special report criteria of Technical Specification 3.5.3.1/6.9.2. A similar report was issued as LER 1-85-039.



Carolina Power & Light Company

Brunswick Steam Electric Plant

P. O. Box 10429

Southport, NC 28461-0429

September 25, 1985

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Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1

DOCKET NO. 50-325

LICENSE NO. DPR-71

LICENSEE EVENT REPORT 1-85-047

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

C. R. Dietz, General Manager  
Brunswick Steam Electric Plant

MJP/rla

Enclosure

cc: Dr. J. N. Grace

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