

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 2 5										PAGE (3) 1 OF 0 2																																
TITLE (4) Primary Containment Group 1 Isolation and Core Spray Injection 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					DOCKET NUMBER(S)																																						
0	7	3	0	8	5	8	5	0	3	9	0	0	0	8	2	9	8	5	0	5	0	0	0																													
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)																																																	
5			20.402(b)										20.406(c)										X 80.73(a)(2)(iv)										73.71(b)																			
POWER LEVEL (10)			0 0 0										20.406(a)(1)(i)										80.36(a)(1)										80.73(a)(2)(v)										73.71(c)									
			20.406(a)(1)(ii)										80.36(a)(2)										80.73(a)(2)(vi)										X OTHER (Specify in Abstract below and in Text, NRC Form 366A)																			
			20.406(a)(1)(iii)										80.73(a)(2)(i)										80.73(a)(2)(vii)(A)																													
			20.406(a)(1)(iv)										80.73(a)(2)(ii)										80.73(a)(2)(vii)(B)																													
			20.406(a)(1)(v)										80.73(a)(2)(iii)										80.73(a)(2)(x)										Special Report																			
LICENSEE CONTACT FOR THIS LER (12)																																																				
NAME M. J. Pastva, Jr., Regulatory Technician												TELEPHONE NUMBER AREA CODE 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	MANUFAC- Turer	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFAC- Turer	REPORTABLE TO NPDs																																										
A	BIM	IRIL Y G 0 8 2		Yes																																																
A	BIM	IRIL Y G 0 8 2		Yes																																																
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)																																								
X YES (If yes, complete EXPECTED SUBMISSION DATE)												NO																																								
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 7-30-85, at 2236, with Unit 1 in a refueling/maintenance outage, automatic initiation of 1A core spray (CS) and an auto-start of diesel generators (D/G) 1, 3, and 4 occurred due to a LOCA signal. A primary containment Group 1 also occurred due to a low level No. 2 signal. 1B CS and D/G 2 were under equipment clearance and the pressure suppression chamber was drained. The reactor was defueled with the vessel head removed, the reactor cavity flooded, and the fuel pool gates removed. An estimated 25,000 gallons of inventory from the CS injection overflowed from the reactor cavity and fuel pool into the Reactor Building before the 1A CS was secured, approximately three minutes after initiation. CS logic relays K10C and D overheated, caught fire, and were extinguished within seven minutes.

The LOCA signal resulted from a low level No. 3 attributed to venting the instrument variable sensing leg of reactor level instrument N026A. Reactor level instruments N031A and C and N024A-1 and C-1 consequently saw low level Nos. 2 and 3 signals which initiated the events. K10C and D failed as a result of the installation of an incorrect relay type under a plant modification.

Corrective actions regarding the incurred inventory spill are in progress. Appropriate corrective action, regarding this event, is being developed and will be reflected in a supplemental report.

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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 1 2 5	8 5	— 0 3 9	— 0 1 0	0 2	OF 0 2

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

On July 30, 1985, at 2236, while Unit 1 was in a refueling/maintenance outage, a reactor low level No. 3 LOCA signal occurred resulting in an automatic initiation of the 1A Core Spray (CS) System. Emergency ac diesel generators (D/G) 1, 3, and 4 automatically started on the LOCA signal and a primary containment Group 1 isolation occurred on a low level No. 2 signal. At the time of the event the reactor was defueled, with the vessel head removed, the reactor refueling cavity flooded, and the fuel pool gates removed. The 1B CS System and D/G 2 were under equipment clearance and the suppression chamber was drained for plant modification work. An estimated 25,000 gallons was pumped to the reactor, flooding up the reactor refueling cavity and fuel pool and overflowing into the Reactor Building via the building ventilation ducts. 1A CS System was manually secured within three minutes of the event. Starting logic relays in the CS System, E11-K10C and D overheated, caught fire, and were extinguished within seven minutes.

The initiating cause of this event is attributed to a venting evolution during plant modification work. The variable sensing leg to reactor level instrument B21-LT-N026A was being vented. A slight depressurization of the variable leg occurred causing reactor level instruments sharing the same leg, B21-LT-N031A and C and B21-LT-N024A-1 and B-1, to see false low level Nos. 2 and 3 level signals. The false signals resulted in the incurred Group 1 isolation and CS System initiation.

The incurred failure of the CS starting logic relays K10C and D resulted from the installation of an incorrect relay type under a plant modification during the ongoing refueling/maintenance outage. An investigation revealed ac type relays had been installed within the CS starting logic, which is dc powered. Additional action to address and resolve the problem of the improperly installed subject relays is in progress.

Recovery actions to permit recommencement of the refueling/maintenance outage activities were performed. Corrective actions relative to the incurred inventory spill are presently under development and will be appropriately implemented. A supplemental report further detailing this event will be submitted on or before September 30, 1985.

The report satisfies the special report criteria of Technical Specification 3.5.3.1/6.9.2.



Carolina Power & Light Company

Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429
August 29, 1985

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SERIAL: BSEP/85-1500

NRC Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-85-039

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/jo

Enclosure

cc: Dr. J. N. Grace

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