

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) Auto Starting of Emergency Diesel Generators and Primary Containment Groups 2, 3, 6, and 8 Isolations Resulting from Loss of Emergency Electrical Buses E-1 and Electrical Bus 1D																																																											
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)																						
1 0			0 9			8 5			8 5			0 5			5			0 0			1 1			0 8			8 5													0 5 0 0 0																			
1 0			0 9			8 5			8 5			0 5			5			0 0			1 1			0 8			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)										20.406(e)										X 50.73(a)(2)(iv)										73.71(b)																			
										20.406(a)(1)(i)										50.36(a)(1)																				50.73(a)(2)(v)										73.71(c)									
										20.406(a)(1)(ii)										50.36(a)(2)																				50.73(a)(2)(vii)										OTHER (Specify in Abstract below and in Text, NRC Form 368A)									
										20.406(a)(1)(iii)										50.73(a)(2)(i)																				50.73(a)(2)(viii)(A)																			
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LICENSEE CONTACT FOR THIS LER (12)																																																											
NAME M. J. Pastva, Jr., Regulatory Technician																				TELEPHONE NUMBER 9 1 9 4 5 7 1 - 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 10/09/85, at 1306, the Units 1 and 2 emergency ac electrical diesel generators (DGs) auto-started and DG No. 1 tied on to reenergize the units' common emergency ac bus, E-1. Unit 1 primary containment Groups 2, 3, 6, and 8 isolations, auto-isolation of the unit Reactor Building ventilation system, and auto-start of the unit Standby Gas Treatment System trains occurred. At the time, test equipment was being connected during plant modification acceptance work in electrical compartment 1-AD5 of Unit 1 electrical bus 1D. Unit 1 was in a refuel/maintenance outage.

This event resulted from the ongoing plant modification acceptance work. While connecting a voltmeter to measure voltage between terminals PN-4 and RB-32 of 1-AD5, PN-4 was inadvertently shorted to adjacent terminal PN-3 causing the fuse to an undervoltage relay of bus 1D to blow. The undervoltage relay consequently picked up and bus 1D tripped, thereby resulting in the incurred sequence of events.

The procedure relative to the subject plant modification acceptance work has been appropriately revised to prevent future similar occurrences.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OM NO 3150-0104

EXPIRES 8/31/85

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

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

On October 9, 1985, at 1306, the Unit 1 startup transformer input breaker to the unit electrical bus 1D tripped. Consequently, the Units 1 and 2 common emergency ac electrical bus, E-1, which is normally supplied from bus 1D, deenergized. The units' emergency ac diesel generators (DGs) automatically started and DG No. 1 tied on to E-1 to reenergize the bus. Unit 1 Reactor Protection System motor generator 1A tripped and Unit 1 primary containment Groups 2, 3, 6, and 8 isolations occurred. In addition, normal power supply to the 2A pump of the Unit 2 Residual Heat Removal Subsystem loop A was momentarily interrupted when E-1 deenergized. The Unit 1 Reactor Building ventilation system automatically isolated, the unit Standby Gas Treatment System trains 1A and 1B automatically started, and train 2A of the units' common Control Building Emergency Air Filtration System automatically started. At the time of this event, test equipment was being connected to check voltage between terminals RB-32 and PN-4 in electrical compartment 1-AD5 of bus 1D during plant modification acceptance work. Throughout this event, Unit 1 was in a refueling/maintenance outage.

The initiating cause of this event was inadvertent shorting of terminal PN-4 to adjacent terminal PN-3 while connecting a voltmeter to check voltage between RB-32 and PN-4. A major contributory factor to this occurrence is the close proximity of PN-4 to PN-3 and that there is no insulating shield between them. Shorting of PN-4 to PN-3 caused the fuse supplying undervoltage trip relay 27-59S to bus 1D to blow which actuated the relay and caused the input breaker to bus 1D to trip.

On October 9, 1985, at 1328, the affected systems were returned to normal and incurred isolation signals were reset. On October 9, 1985, at 1451, the subject fuse to relay 27-59S was replaced and bus 1D was reenergized from the unit startup transformer. On October 9, 1985, at 1500, E-1 was reenergized from E-1 and the DGs were secured and returned to standby.

The procedure relative to the subject plant modification acceptance work has been revised to require appropriate insulation taping over terminals PN-4 and PN-3 to prevent inadvertent terminal shorting.



Carolina Power & Light Company

Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429
November 8, 1985

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SERIAL: BSEP/85-1883

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 1-85-055

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/dj

Enclosure

cc: Dr. J. N. Grace

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