



Brunswick Nuclear Plant
P.O. Box 10429
Southport, NC 28461-0429

JAN 16 1995

SERIAL: BSEP-95-0009
10CFR50.73

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

BRUNSWICK NUCLEAR PLANT UNIT 1
DOCKET NO. 50-325/LICENSE NO. DPP-71
LICENSEE EVENT REPORT 1-94-015

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Part 50.73, Carolina Power & Light Company submits the enclosed Licensee Event Report. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is submitted in accordance with the format set forth in NUREG-1022, September 1983.

Please refer any questions regarding this submittal to Mr. M. A. Turkal at (910) 457-3066.

Very truly yours,

J. Cowan, Director-Site Operations
Brunswick Nuclear Plant

JC/jfm

Enclosures

1. Licensee Event Report
2. Summary of Commitments

cc: Mr. S. D. Ebnetter, Regional Administrator, Region II
Mr. P. D. Milano, NRR Project Manager - Brunswick Units 1 and 2
Mr. C. A. Patterson, Brunswick NRC Senior Resident Inspector
The Honorable H. Wells, Chairman - North Carolina Utilities Commission

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Enclosure
List of Regulatory Commitments

The following table identifies those actions committed to by Carolina Power & Light Company in this document. Any other actions discussed in the submittal represent intended or planned actions by Carolina Power & Light Company. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager-Regulatory Affairs at the Brunswick Nuclear Plant of any questions regarding this document or any associated regulatory commitments.

Commitment	Committed date or outage
1. Review the event with appropriate I&C Personnel.	Complete
2. Discontinue use of the Simpson Model 260 meters which have the "tone" function.	Complete
3. Utilize DC Volt meters (Fluke Model 45) for relay contact checks within MSTs.	Complete
4. Review Licensee Event Report 1-94-015 and the Corrective Actions with appropriate Instrument and Control personnel.	2/15/95
5. Modify select Fluke Model 45 meters to eliminate unnecessary functions.	04/17/95

EXPIRES: 5/31/95

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Brunswick Steam Electric Plant, Unit 1

DOCKET NUMBER (2)

05000325

PAGE (3)

1 of 3

TITLE (4)

Unplanned Engineered Safety Feature Actuation During Performance of a Maintenance Surveillance Test.

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 NAME	DOCKET NUMBER
12	15	94	94	- 15 -	00	01	12	95	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following)(11)							
		20.402(b)		20.405(c)	<input checked="" type="checkbox"/>	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	
		20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract and Text)	
		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

Jeanne F. McGowan, Regulatory Affairs Specialist

TELEPHONE NUMBER

(910) 457-2136

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES	X	NO					
(If yes, complete EXPECTED SUBMISSION DATE)							

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

On December 15, 1994, Unit 1 was operating at 100% power. A Maintenance Surveillance Test (MST), 1MST-RHR21M, High Drywell Pressure calibration and Channel Functional Test, was in progress. At 1015 hours, the High Pressure Coolant Injection System (HPCI) received an auto initiation signal. The initiation sequence started as expected. The HPCI Injection Valve, E41-F006, did not receive an open signal and there was no injection into the reactor vessel. The Reactor Operator observed the HPCI start and secured the system after verifying there was no valid initiation signal. Investigation revealed that the meter leads were correctly placed per the test procedure but the DC circuit polarity resulted in a downscale reading. This required changing the meter polarity switch to the other DC position (+ or -). This meter model has a "tone" position on the same switch to aid in resistance functions and it is believed that the technician inadvertently went to the "tone" position, causing the meter to act as a jumper, completing the HPCI initiation logic. After the initial investigation, the HPCI system was returned to operable and placed in standby at 1158. Corrective actions include limiting the use of Model 260 meters and specifying a Digital Multimeter (Fluke Model 45) to be used for relay contact checks in MSTs. The safety significance was minimal. The HPCI system functioned properly and although declared inoperable, remained available throughout the event. The cause classification for this event per the criteria of NUREG-1022 is Personnel Error.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Brunswick Steam Electric Plant Unit 1	05000325	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3
		94	- 15 -	00	

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

TITLE

Unplanned Engineered Safety Feature Actuation During Performance of a Maintenance Surveillance Test.

INITIAL CONDITIONS

On December 15, 1994, Unit 1 was operating at 100% power. The High Pressure Coolant Injection, Reactor Core Isolation Cooling, Automatic Depressurization, and Core Spray Systems were operable and in standby. A Maintenance Surveillance Test, 1MST-RHR21M, High Drywell Pressure Calibration and Channel Functional Test, was in progress.

EVENT NARRATIVE

On December 15, 1994, at 1015 hours, an unplanned automatic initiation signal was received on the HPCI system. The E41-F004, HPCI Steam Supply Valve, and the E41-F059, HPCI Cooling Water Supply Valve began opening and the HPCI Auxiliary Oil Pump and Barometric Condenser Vacuum Pump started running. The HPCI System Pressure Low annunciator was received in the Control Room. The HPCI Turbine Stop Valve, E41-V8 started to open approximately 12 seconds later when sufficient oil pressure developed allowing the HPCI turbine to accelerate. The Reactor Operator observed the HPCI start. After verifying that there were no actual conditions requiring an automatic initiation, he tripped the HPCI turbine and locked out the Auxiliary Oil Pump. The HPCI system was declared inoperable until the event could be investigated. The E41-F006, HPCI Injection Valve, did not receive an open signal and there was no cold water injection into the reactor vessel.

A monthly MST, 1MST-RHR21M, High Drywell Pressure Calibration and Channel Functional Test, was in progress on the "B" channel during the time of the event. The MST determines the operability of the high drywell pressure function to the Core Spray (CS), Low Pressure Coolant Injection (LPCI), and the HPCI systems. When making voltage checks with the Simpson Model 260, it may be necessary to select either +DC or -DC if the meter indicator deflects downscale, in order to achieve an upscale deflection. On this same function switch, there is a tone position indicated by a music note. An investigation performed after the subject event revealed that if the tone position is selected while in the volts DC position with the other function switch, a low resistance condition is created. Although the technicians do not recall placing the meter in the tone position, this is the only credible cause of the event. Following the initial investigation, the HPCI System was returned to operable at 1158.

CAUSE OF EVENT

The cause of this event is personnel error. It is believed that the meter was placed to the "tone" position rather than the alternate DC position to correct the polarity.

CORRECTIVE ACTIONS

1. Use of the Simpson Model 260 meters which have the tone position on the switch has been discontinued.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Brunswick Steam Electric Plant Unit 1	05000325	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 of 3
		94	- 15 -	00	

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

2. The event has been reviewed with appropriate Instrument and Control personnel. This Licensee Event Report and corrective actions will be reviewed in detail with the Instrument and Control personnel by February 15, 1995.
3. DC Volt meters (Fluke Model 45) will be utilized for relay contact checks within MSTs per a memo issued January 9, 1995. This meter was selected because testing revealed that a low resistance condition is not created when "ohms" is selected while metering volts. Furthermore, some of the Fluke Model 45 meters will be modified to eliminate the unnecessary functions of the meter and thus further reduce the possible effects of a human error. This will be completed by April 17, 1995.

SAFETY ASSESSMENT

The safety significance was minimal. The Automatic Depressurization System, the Core Spray Systems, the Low Pressure Coolant Injection Systems and the Reactor Core Isolation Cooling System was operable during the event. The HPCI system was available for manual initiation.

PREVIOUS SIMILAR EVENTS

A previous similar event was reported in LER 2-93-009.

EIIS COMPONENT IDENTIFICATION

System/Component

EIIS Code

High Pressure Coolant Injection System

BJ