



Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
Southport, N.C. 28461-0429

MAY 20 1984

FILE: B09-13510C

10CFR50.73

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

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1 AND 2
DOCKET NO. 50-325 AND 50-324
LICENSE NO. DRP-71 AND DPR-62
LICENSEE EVENT REPORT 1-92-013

Gentlemen:

In accordance with Title 10 of 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 submitted in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

J. W. Spencer, General Manager
Brunswick Nuclear Project

GMT/gmt

Enclosure

cc: Mr. S. D. Ebnetter
Mr. R. H. Lo
Mr. R. L. Prevatte

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EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Brunswick Steam Electric Plant
Unit 1DOCKET NUMBER (2)
05000325

PAGE (3)

1

TITLE (4) 4160 VOLT EMERGENCY BUS OUTAGE CLEARANCE RESULTS IN UNPLANNED SYSTEM ISOLATIONS

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ. NO.	REV. NO.		MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
4	30	92	92	- 013	- 0		6	1	92	BSEP Unit 2	50-324

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
4		20.402(b)		20.405(c)		x		50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL (10)		20.405(a)(1)(i)		50.36(c)(1)				50.73(a)(2)(v)		73.71(c)	
0%		20.405(a)(1)(ii)		50.36(c)(2)				50.73(a)(2)(vi)		OTHER (Specify in Abstract and Text)	
		20.405(a)(1)(iii)		50.73(a)(2)(i)				50.73(a)(2)(vii)(A)			
		20.405(a)(1)(iv)		50.73(a)(2)(ii)				50.73(a)(2)(vii)(B)			
		20.405(a)(1)(v)		50.73(a)(2)(iii)				50.73(a)(2)(v)			

LICENSEE CONTACT FOR THIS LER (12)

NAME Glen M. Thearling, Regulatory Compliance Specialist

TELEPHONE NUMBER

(919) 457-2038

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED SUBMISSION

MONTH

DAY

YEAR

YES (If yes, complete EXPECTED SUBMISSION DATE)

X

NO

DATE (15)

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

On April 30, 1992, at 0615, both Units were in Cold Shutdown and preparations were being made to place the 4160 volt E3 Emergency bus under clearance to support planned maintenance. The preparation required transferring Unit 2 Distribution Panel 32AB to its alternate power supply. During the transfer Unit 1 received an unexpected Primary Containment Isolation System (PCIS) Group 6 isolation (Containment Atmosphere Control), a Reactor Building isolation, and an auto start of the Standby Gas Trains due to a momentary de-energizing of Main Stack Radiation Monitor isolation logic. These isolation signals had been anticipated on Unit 2 and the Unit 2 CAC Purge Vent Isolation Override was used to support the panel transfer. It was not recognized that, as designed, the momentary power loss during the panel transfer would result in the common Main Stack Radiation Monitor isolation logic initiating both Units' isolation signals. The affected Unit 1 systems responded as designed and were realigned to restore the Reactor building ventilation and the drywell purge.

Following completion of the planned maintenance, at 0026 on May 1, the restoration of power to E3 bus loads resulted in an unplanned PCIS Group 3 Division I isolation (Reactor Water Clean-up) on Unit 2. It was not expected that the Steam Leak Detection System logic would experience a relay race during re-energization that resulted in the PCIS Group 3 isolation.

The safety significance was minimal since both Units are in Cold Shutdown and the plant systems responded as designed.

Similar events have been reported in LERs 1-88-01, 1-88-02, 1-89-04, and 1-90-27.

LICENSEE EVENT REPORT (LER) **TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, 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		SEQ NO.		REV NO.	2
		92		013		0	

TEXT (If more space is required, use additional NRC Form 365A's) (17)

INITIAL CONDITIONS

At 0615 on April 30, 1992, both Units were in Cold Shutdown. This made it possible to support 4160 volt AC Emergency bus outages. Preparations were being made to place the E3 Emergency bus under clearance to support planned maintenance.

EVENT NARRATIVE

The preparations to de-energize the E3 bus required transferring Unit 2 Distribution Panel 32AB to its alternate power supply. This transfer resulted in Unit 1 receiving an unexpected Primary Containment Isolation System (PCIS) Group 6 isolation (Containment Atmosphere Control), a Reactor Building isolation, and an auto start of the Standby Gas Trains. Only the Unit 2 isolation signals were anticipated as part of the distribution panel transfer and consequentially the Unit 1 CAC Purge Vent Isolation Override was not used. It was not recognized that, as designed, the momentary power loss during the panel transfer would result in the common Main Stack Radiation Monitor isolation logic initiating both Units' isolation signals. The affected systems responded as designed and were realigned to restore the Reactor building ventilation and the drywell purge.

After the planned maintenance was completed, power was restored to the E3 bus loads at 0026 on May 1, 1992. This resulted in an unplanned Unit 2 PCIS Group 3 Division 1 isolation (Reactor Water Clean-up). It was not expected that the Steam Leak Detection System logic would experience a relay race during re-energization that resulted in the PCIS Group 3 (Reactor Water Cleanup), and Group 4 (High Pressure Coolant Injection) isolation signals. The Group 4 isolation was previously sealed-in when the Unit depressurized to reach Cold Shutdown. The Unit 2 Group 3 Division 1 isolation was reset and the Reactor Water Cleanup system returned to service.

CAUSE OF EVENT

A clearance with supporting documentation was used to control the E3 bus outage. A detailed listing of loads was supplied, but the impact of transferring distribution panels to alternate supplies was not part of this documentation. When the clearance was written the load list was not integrated with the clearance to support the step by step hanging or removal of the clearance.

Neither Operating Procedure (OP) OP-50.1 Diesel Generator Emergency Power System or OP-52 Emergency 120 Volt AC Distribution System provided prerequisites, cautions, or notes to capture previous experiences with re-energizing the Steam Leak Detection or the activation of dual Unit initiation logic when power supplies are transferred. They do not provide procedural support for transferring loads with dual power supplies.

EXPIRES: 4/30/92

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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		92		013	0	

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

CORRECTIVE ACTIONS

- Incorporate statements (notes, cautions, etc.) that will capture the lessons learned from these inadvertent initiations into OP-50.1 and/or OP-52. (Expected due date 8/20/92)
- An evaluation will be conducted into establishing a procedure that will act as the controlling document (supported by a clearance) to de-energizing Emergency busses. (Expected due date 9/24/92)
- Incorporation of the Emergency bus load lists into a permanent approved procedure is being evaluated. These should identify actions that will initiate Engineered Safety System functions. (Expected due date 10/22/92)
- The Steam Leak Detection System is scheduled to be modified during each Unit's next refueling outage with a system that will not experience relay races during re-energization that result in actuation signals.

SAFETY ASSESSMENT

The safety significance was minimal since both Units are in Cold Shutdown and the plant systems responded as designed.

PREVIOUS SIMILAR EVENTS

Similar events have been reported in LERs 1-88-01, 1-88-02, 1-89-04, and 1-90-27.

EIIS COMPONENT IDENTIFICATIONSystem/ComponentEIIS Code

Primary Containment Isolation System

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