

CP&L

Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
Southport, N.C. 28461-0429
December 20, 1990

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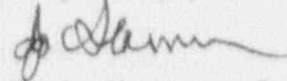
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-90-024

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. L. Harness, General Manager
Brunswick Nuclear Project

WRT/

Enclosure

cc: Mr. S. D. Ebnetter
Mr. N. B. Le
BSEP NRC Resident Office

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PDR ADOCK 05000325
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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 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) Brunswick Steam Electric Plant Unit 1

DOCKET NUMBER (2)
05000325

PAGE (3)

01 OF 03

TITLE (4) Reactor Building Ventilation Inboard Exhaust Damper Closure

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	
11	24	90	90	- 024	- 00	12	20	90			

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)								
		20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.405(a)(2)(i)	20.405(a)(2)(ii)	20.405(a)(2)(iii)
5	000									

LICENSEE CONTACT FOR THIS LER (12)

NAME WILLIAM R. TOLER, REGULATORY COMPLIANCE

TELEPHONE NUMBER

(919) 457-2701

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
<input checked="" type="checkbox"/>	YES (If yes, complete EXPECTED SUBMISSION DATE)		NO		03	31	91

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

At 1632 on November 24, 1990 during plant modification acceptance testing for the 480 volt electrical breaker change out of the 1B Standby Gas Treatment train starter circuit, 1 of 2 reactor building ventilation exhaust dampers closed and the reactor building ventilation supply and exhaust fans tripped. No other reactor building isolation dampers isolated and the Standby Gas Treatment trains did not start. This partial isolation occurred while checking/verifying the rotation of the fan in the 1B SBGT train after replacement of its breaker. It is believed this event resulted from "relay races" occurring during energizing of the circuitry.

An investigation into the cause of this event is continuing to determine if corrective action (repairs) are needed. A supplement will be issued by March 31, 1991 to provide the results of this investigation. This event had no safety significance since the reactor was defueled and the secondary containment isolation function was not required operable.

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) Brunswick Steam Electric Plant Unit 1	DOCKET NUMBER (2) 05000325	LER NUMBER (6)				PAGE (3) 02 OF 03
		YEAR 90	-	SEQUENTIAL NUMBER 024	-	

TEXT (IF MORE SPACE IS REQUIRED, USE ADDITIONAL NRC FORM 366A'S) (17)

Event

The Reactor Building Inboard Exhaust Damper 1-VA-1C-BFIV-RB closed and the Reactor Building Ventilation Supply and Exhaust Fans tripped during plant modification acceptance testing on the 1B Standby Gas Train.

Initial Conditions

Unit 1 was in mode 5 [Refueling] with the Reactor defueled and the Secondary Containment Isolation function was not required operable.

Event Description

At 1632 on November 24, 1990 during Plant Modification 86-001 acceptance testing for the 480 Volt Electrical Breaker change out of the 1B Standby Gas Treatment (SBGT) train starter circuit, 1 of 2 Reactor Building Ventilation Exhaust Dampers closed and the Reactor Building Ventilation Supply and Exhaust Fans tripped. No other Reactor Building Isolation Dampers isolated and the Standby Gas Treatment Trains did not start.

Event Investigation

This partial isolation occurred while checking/verifying the rotation of the fan in the 1B SBGT train after replacement of its 480 volt breaker in Motor Control Center (MCC) 1XF which is located on the 50-foot elevation of the Reactor Building. In performing this test, the circuit breaker (1XF-ED3) was turned from OFF to ON and back to OFF, when the technician monitored current draw to the charcoal heater which was not expected. This operation, which took place in less than two seconds, was performed as allowed/specified in the acceptance test to prevent possible damage to the affected equipment.

Review of the SBGT control logic determined this partial isolation could be explained via "relay races" occurring during energizing and deenergizing of the circuitry. It was suspected the evolution of the abnormally quick cycling of the breaker and/or a sluggish relay allowed this event to happen. As part of the investigation, the acceptance test was performed again with chart recorders attached to various electrical components monitoring voltages associated with the SBGT control logic to determine the "sequence of events" that allowed this event to occur. The event was not reproduced but the BCRMX relay (which sends the signal to the "C" damper to close) that was suspected of energizing, received a momentary pulse of current. This substantiated the "relay race" theory; however, the identification of a sluggish relay was not readily apparent from the chart recording, nor did it appear that the abnormally quick cycling of the breaker caused the evolution as originally suspected.

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FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1	DOCKET NUMBER (2) 05000325	LER NUMBER (6)			PAGE (3) 03 OF 03
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		90	- 024	- 00	

TEXT (IF MORE SPACE IS REQUIRED, USE ADDITIONAL NRC FORM 366A'S) (17)

Currently, an investigation into the cause of the event is continuing to determine if corrective actions (repairs) are necessary.

Corrective Action

Reactor Building Ventilation was restored following verification that a valid signal did not exist. The results of the investigation will be reported in a supplement to this LER by March 31, 1991.

Event Assessment

No safety significance. The Reactor was defueled and the secondary containment isolation function was not required operable. This is an isolated event.

EIIS CODES

Standby Gas Treatment	BH/FLT
Secondary Containment Ventilation Isolation Dampers	VA/DMP
480 VAC	EB/MCC
Circuit Breaker	BH/BKR
Isolation Logic Relay	JM/RLY