

## 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 3									
TITLE (4) Inoperability of the A Reactor Core Spray Subsystem on Both Units 1 and 2																								
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	9	0	6	8	4	8	4	0	2	3	0	1	1	2	0	3	8	4	Brunswick Unit 2	0 5 0 0 0 3 2 4				
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																					
POWER LEVEL (10) 1 0 0			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
			20.405(a)(1)(i)				50.36(c)(1)				X 50.73(a)(2)(v)				73.71(c)									
			20.405(a)(1)(ii)				50.36(c)(2)				X 50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
			20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)													
			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 M. J. Pastva, Jr., Regulatory Technician										TELEPHONE NUMBER														
										AREA CODE 9 1 9 4 5 7 - 9 5 2 1														
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														
X	B	M	S	P	T	B	4	5	0	Yes														
SUPPLEMENTAL REPORT EXPECTED (14)																	EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR			
X YES (If yes, complete EXPECTED SUBMISSION DATE)																	NO		0	2	1	4	8	5

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

On September 6, 1984, it was discovered that the common support imbed plate of Unit 2 A Core Spray subsystem hydraulic snubbers 2-E21-2SS31 and 2SS32 was loose and the plate concrete base was cracked and broken. Subsequent inspections revealed the condition existed on the same corresponding piping support imbed plate of the Unit 1 A Core Spray subsystem. At the time of this event, Unit 1 was at 100 percent power and Unit 2 was in a refuel/maintenance outage. In addition, the B Core Spray subsystem on both units and the Low Pressure Coolant Injection subsystems, the High Pressure Coolant Injection System, and the Reactor Core Isolation Cooling System on Unit 1 were operable.

After preliminary plant Engineering investigation and evaluation of this event, the A Core Spray subsystem on each unit was respectively declared inoperable. The subject hydraulic snubber imbed plate on both units was strengthened with wing plates and wedge anchors.

A walkdown of the loop piping of both Core Spray subsystems on each unit was conducted to determine if other subsystems' piping supports were affected. No other problems were found that affect system operability.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB 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 4	0 2 3	0 1	0 2	OF	0 3

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

On September 6, 1984, following the performance of an inspection of electrical conduit fastening clamps in the Unit 2 Reactor Building, it was determined that the common support imbed plate of the unit's A Core Spray subsystem hydraulic snubbers 2-E21-2SS31 and 2SS32 was loose and the plate concrete base was broken and cracked to approximately 1/8" in depth. Subsequent inspections of the Unit 2 B Core Spray subsystem and the Unit 1 A and B Core Spray subsystems revealed that similar conditions also existed on the same corresponding piping support imbed plate of the Unit 1 A Core Spray subsystem. The B Core Spray subsystem on each unit has a different piping configuration. The involved Unit 1 A Core Spray hydraulic snubbers are 1-E21-2SS31 and 2SS32. The hydraulic snubbers of each unit are located on the subsystem piping upstream of the subsystem primary containment outboard isolation valve, 1(2)-E21-F004A. Each pair of snubbers serves to restrain the subsystem lines, 2-12-300 and 41-10-604, on each unit. At the time of these discoveries, Unit 1 was operating at 100 percent power and Unit 2 was in a refueling/maintenance outage.

Following a preliminary plant Engineering investigation and analysis of these discoveries, a determination was made that operability of the involved hydraulic snubbers during an encountered design seismic event could not be verified. As a result, the A Core Spray subsystem on each unit was declared inoperable. At the time, both Low Pressure Coolant Injection (LPCI) Residual Heat Removal (RHR) subsystems and the B Core Spray subsystem on Unit 1 were operable. In addition, the unit High Pressure Coolant Injection (HPCI) System and Reactor Core Isolation Cooling (RCIC) System were operable. On Unit 2, the B Core Spray subsystem was operable.

The subject hydraulic snubber imbed plate on both units was strengthened by the addition of wing plates and wedge anchors. The piping of both Core Spray subsystems on each unit was walked down to determine if other subsystems' supports are affected. No other problems were found that affect system operability.

Further investigation and evaluation concerning this event has concluded the incurred damage to the subject common support imbed plate on each unit's Core Spray A subsystem resulted from water hammer of the respective subsystem's piping. The period of time during which this damage occurred could not be determined. These plates are located away from the immediate visual vicinity of their respective hydraulic snubbers. As a result, the physical condition of the imbed plates went unnoticed during prior hydraulic snubber inspections and/or repairs. The electrical conduct fastening clamp inspections necessitated personnel access into the immediate vicinity of the imbed plates which then allowed the damage to be detected.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 305A's) (17)

The Units 1 and 2 Core Spray subsystems' operating procedure and operability test procedures were reviewed for adequacy in preventing water hammer of the subsystems' piping. The procedures were found to contain adequate measures for prevention of water hammer. In addition, the subsystems' operability test procedures contain instructions for stationing a plant auxiliary operator to monitor for any subsystem excessive motion and/or water hammer.

During the Unit 2 1984 refuel/maintenance outage, an In-Service Inspection (ISI) Support Inspection program was implemented on Unit 2. This program will also be implemented during the scheduled Unit 1 spring of 1985 refueling outage. This program inspects a percentage of Class 1, 2, and 3 supports during each unit's respective refueling outages, such that all the supports are inspected within a ten-year period. It is felt this will help in the detection of incurred water hammer of plant piping systems if they occur.

Engineering is currently reviewing this event to determine if any additional actions may be required.



Carolina Power & Light Company

Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461-0429  
December 3, 1984

FILE: B09-13510C  
SERIAL: BSEP/84-2656

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  
SUPPLEMENT TO LICENSEE EVENT REPORT 1-84-23

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Supplemental Licensee Event Report is submitted. The original report fulfilled the requirement for a written report within thirty (30) days of a reportable occurrence and was submitted 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/sdl/LETS DL

Enclosure

cc: Mr. R. C. DeYoung  
Mr. J. P. O'Reilly

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