



Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
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December 13, 1990

FILE: B09-13510C
SERIAL: BSEP/90-0822

10CFR50.73

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. DRP-71
LICENSEE EVENT REPORT 1-90-020

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

TH/

Enclosure

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

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LICENSEE EVENT REPORT (LER)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1) St. Lucie Unit 2										DOCKET NUMBER (2) 05000389				PAGE (3) 1 OF 03	
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TITLE (4) INADVERTENT ACTUATION OF ENGINEERED SAFEGUARDS EQUIPMENT DURING TIME RESPONSE TESTING DUE TO PERSONNEL ERROR															
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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 N/A		DOCKET NUMBER(S)		
1	1	0990	90	004	00	1	2	1090			01510101		

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check one or more of the following) (11)															
5		20.402(b)				20.405(c)				X		50.73(a)(2)(iv)				73.71(b)	
POWER LEVEL (10)		0100				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 (Specify in Abstract below and in Text NRC Form 365A)	
		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. W. Wolaver, Shift Technical Advisor										TELEPHONE NUMBER AREA CODE 407465-3550					

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)															
CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS					

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 November 9, with Unit 2 in Mode 5 during a refueling outage, an inadvertent actuation of assorted Engineered Safeguards equipment, including the 2A Emergency Diesel Generator, occurred during Engineered Safeguards Features testing. This equipment belongs specifically to the 'A' side Safety Injection Actuation System/Containment Isolation Actuation System (SIAS/CIAS), Group 5.

The root cause of the event was personnel error. Instrumentation and Control personnel misread information in the testing procedure, and inadvertently actuated the wrong equipment.

Corrective actions: The test procedure was reviewed for errors. The testing was completed satisfactorily following this procedure. A Control Room Engineering Design Integration team reviewed color coding, placement and design of equipment labeling; workspace location and the procedure involved. No deficiencies were noted with respect to the criteria of NUREG 0700. An independent INPO Human Performance Enhancement System review was also performed on this event. The Instrument and Control personnel involved were counseled.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) St. Lucie Unit 2	DOCKET NUMBER (2) 0500038990	LER NUMBER (6)						PAGE (3)		
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER					
		00	00	4	0	0	02	OF	03	

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

DESCRIPTION OF THE EVENT

On November 9, Unit 2 was in Mode 5 during a refueling outage. The Reactor Coolant System (RCS) (EISS:AB) loops were full and on solid pressure control, with venting in progress. Instrument and Control (I&C) personnel were performing Engineered Safeguards (EISS:JE) time response testing as per I&C procedure 2-1400053. According to the procedure, the Operations crew were briefed and given a list of equipment that were expected to actuate during that portion of the testing. The equipment listed belonged to the 'A' side Safety Injection Actuation Signal/Containment Isolation Signal (SIAS/CIAS) (EISS:JM), Group 3. However, at 1959 hours, I&C personnel depressed the wrong pushbutton and unexpectedly actuated a different group of Engineered Safeguards equipment, the Group 5 equipment. The Operations crew immediately realized that the actuations were incorrect and notified the I&C personnel, then proceeded immediately to review Plant conditions and realign equipment. The major equipment that actuated included: 2A Emergency Diesel Generator (EISS:EK), 2A Intake Cooling Water Pump, 2A Component Cooling Water Pump (EISS:CC), 2A and 2B Boric Acid Makeup Pumps (EISS:CA), and the Emergency Borate Valve. Testing was terminated, the Engineered Safeguards actuations were reset, and Mode 5 operations were resumed.

CAUSE OF THE EVENT

A Control Room Engineering Design Integration Team reviewed color coding, placement, labeling, workspace location, and the procedure involved. No deficiencies were noted with respect to the criteria of NUREG 0700. An independent INPO Human Performance Enhancement System (HPES) review was also performed on this event.

The root cause of this event was cognitive personnel error. Utility I&C personnel misread a correct and approved I&C testing procedure. The wrong pushbutton was depressed on an Engineered Safeguards cabinet actuation module. This caused the actuation of a different group of Engineered Safeguards equipment than anticipated. There were no adverse conditions at the work location that affected the job, and the pushbuttons were clearly and logically labeled.

ANALYSIS OF THE EVENT

This event is reportable under the requirements of 10CFR50.73.a.2.iv as an event that resulted in manual or automatic actuation of any Engineered Safeguards Feature.

The portion of the testing being performed at this time concerned the actuation of 'A' side SIAS/CIAS, Group 3 equipment. As a result of the error, Group 5 equipment was actuated. The Unit was configured in Mode 5 such that these actuations had no affect on Plant operation. All Group 5 equipment actuated correctly and properly as called upon. Therefore, there were no equipment operability concerns.

There is no possibility that this scenario could effect power operations due to the fact that this test is performed only in modes 3, 4, 5, or 6.

Thus, the health and safety of the public were not at risk at any time during this event.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
St. Lucie Unit 2	0500038990	00	4	00	03	OF 03

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

CORRECTIVE ACTIONS

1. An HPES review was performed on this event.
2. A Control Room Engineering Design Integration Team review was performed on equipment, procedures, and work environment. No deficiencies with respect to NUREG 0700 were noted.
3. The Engineered Safeguards time delay testing was completed satisfactorily.
4. I&C personnel were counseled as to the need to follow test procedures closely.

ADDITIONAL INFORMATION

Failed Component Identification:

NONE

Previous Similar Events:

LER 389-89-003 describes an inadvertent Containment Isolation actuation due to a Licensed Operator mistakenly resetting one channel while a second channel was in the tripped condition.