CP&L
Carolina Power & Light Company

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

February 1, 1990

FILE: B09-13510C
SERIAL: BSEP/90-0084

10CFR50.73

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

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-90-001

Gentlemen:

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

Very truly yours,

J. L. Harness, General Manager
Brunswick Nuclear Project

TMJ/mcg

Enclosure

cc: Mr. S. D. Ebneter
Mr. E. G. Tourigny
BSEP NRC Resident Office

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NRC Form 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
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.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Brunswick Steam Electric Plant Unit 1	0 5 0 0 0 3 2 5	1 OF 0 3

TITLE (4): Coincident Inoperability of HPCI and RCIC Placing Unit 1 in Tech. Spec. 3.0.3 for Two Minutes caused by Personnel Error While Researching a Clearance

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 5 0 0 0
0 1	0 2	9 0	9 0	—	0 0 1	—	0 0	0 2	0 1	9 0		0 5 0 0 0

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	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)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 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	TELEPHONE NUMBER
	AREA CODE
T. M. Jones, Regulatory Compliance Specialist	9 1 9 4 5 7 - 2 0 3 9

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)		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 January 2, 1990, the Unit 1 reactor was operating at 100% power. RCIC was removed from service. HPCI, ADS, CS, and LPCI systems were operable in standby readiness. At 1542 HPCI was rendered inoperable for approximately two minutes which placed the unit in Technical Specification 3.0.3. The cause of the event was personnel error on the part of a Senior Reactor Operator who failed to research plant drawings in accordance with the Equipment Clearance Procedure. The failure resulted in the circuit breaker which supplies power to the HPCI inverter being opened under a clearance for RCIC. The circuit has both HPCI and RCIC loads. The involved SRO was counseled, a memo was written to licensed personnel highlighting the requirements of the Equipment Clearance Procedure, clearances are currently being researched separately by two NRC licensed personnel and compared for discrepancies prior to approval. This event had minimal safety significance.

Event

Coincident inoperability of the High Pressure Coolant Injection (HPCI/E41) (EIIS/BJ) and Reactor Core Isolation Cooling (RCIC/E51) (EIIS/BN) systems.

Initial Conditions

The Unit 1 reactor was operating at 100% power. The RCIC system was removed from service for maintenance under Limiting Condition for Operation (LCO) A1-89-2341. The HPCI system, the Automatic Depressurization System (ADS) (EIIS/*), the A and B Core Spray (CS) (EIIS/BM) system and the A and B Residual Heat Removal/Low Pressure Coolant Injection (RHR/LPCI/E11) (EIIS/BO) systems were operable in standby readiness. Equipment clearance 1-0002 was being hung on the RCIC system.

Event Description

On January 2, 1990, clearance 1-0002 was being hung to replace the RCIC Supply Drain Pot Inboard Drain Valve (EIIS/BN/DRN/V), 1-E51-V57, body to bonnet gasket. At 1542 the 125 volt direct current (vdc) distribution panel 3A circuit breaker number 2 (EIIS/EI/PL/BKR) was deenergized to remove power to the RCIC Steam Supply Drain Pot Drain valve, 1-E51-F025 (EIIS/BN/DRN/V).

When the circuit breaker was opened power was also removed from the HPCI steam supply drain valves and annunciation was received in the Control Room [1-A-1 (2-5) on panel P601] (EIIS/ANN) indicating that the power to the HPCI inverter (EIIS/BJ/INVT) had been lost. (Loss of the inverter resulted in the loss of HPCI flow control capability.) The circuit breaker was closed and power was restored to the inverter at approximately 1544.

This event resulted in Unit 1 HPCI being inoperable and being unable to meet the ACTION requirement of Technical Specification (T/S) 3.7.4, which placed the unit in T/S 3.0.3 for approximately two minutes. LCO A1-90-0001 was initiated and canceled to document the applicability of T/S LCO 3.0.3.

Past similar events include LER 1-89-015, 1-89-008, 2-89-015, 2-89-016.

Event Investigation

On December 27, 1989, a clearance was requested on the 1-E51-V57 valve to replace the body to bonnet gasket in accordance with work request and job order (WR/JO) 89-AXUI1. The clearance was developed by a Senior Reactor Operator (SRO) in the Clearance Center on January 1, 1990. Contrary to Section 5.3.3.8 of the Equipment Clearance Procedure [Administrative

*EIIS component identifier not found.

Instruction (AI) 58], applicable plant drawings were not utilized to identify the equipment loads off of the power supply to the 1-E51-F025 which was required to be deenergized for work on the V57 valve. Instead, the RCIC operating procedure (OP-16) was utilized. The OP indicated that the power supply was circuit breaker two of 125 Vdc distribution panel 3A. It also indicated that this circuit powered the, RCIC Condensate Pump Discharge Outboard Drain Valve to the Main Condenser (EIIS/BN/DRN/V), 1-E51-F005. Believing that the OP was complete, the SRO researching the clearance did not reference plant drawings and consequently failed to identify the HPCI equipment loads powered from the same breaker.

Root Cause

The cause of this event was personnel error on the part of the involved SRO; failure to research plant drawings in accordance with the Equipment Clearance Procedure. A Human Performance Evaluation was performed which determined that the SRO had used this process in the past for clearance development.

Corrective Actions

The involved SRO has been counseled.

A memorandum was written from the Operations Manager to Licensed Personnel highlighting the requirement in AI-58 to research plant drawings and not rely on Operating Procedures when researching a clearance.

As a result of this event, standing instruction 90-003 was issued. The instruction dictates that clearances be separately researched and written by two NRC licensed individuals if they are on systems which require independent verification (i.e., systems indicated in Administrative Procedure Volume 1 Book 1, Table 11.7.1). After each individual finalizes the clearance they are compared. Any existing differences are resolved prior to authorizing the clearance to be placed. This requirement is to be included in the next revision of AI-58 which is expected to be complete by February 28, 1990. The requirement will remain until management decides it is no longer appropriate.

Event Assessment

This event had minimal safety significance because of the immediate awareness of the event and its short duration (i.e., approximately two minutes). A similar occurrence under other reasonable and credible circumstances would not have been more severe because possible involved safety related equipment is designed to either actuate in the fail safe direction or provide a warning annunciation.