CP&L

Carolina Power & Light Company

Brunswick Nuclear Plant
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FEB 26 1993

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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. DRP-71
LICENSEE EVENT REPORT 1-93-002

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. M. Brown, Plant Manager Unit 2
Brunswick Nuclear Plant

GT/gt

Enclosure

cc: Mr. S. D. Ebneter
Mr. P. D. Milano
BSEP NRC Resident Office

IE22
1/1

NRC FORM 366 (5/92)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 5/31/95

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Brunswick Steam Electric Plant, Unit 1	05000325	1

TITLE (4)
480 VOLT BREAKER FOR STANDBY LIQUID CONTROL PUMP WAS FOUND WITH UNDOCUMENTED BREAKER TYPE

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 NAME	DOCKET NUMBER
										05000
01	27	93	93	- 002 -	0	02	26	93	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	4
POWER LEVEL (10)	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following)(11)

	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
	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
	20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract and Text)
	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
Glen M. Thearling, Regulatory Compliance Specialist	(919) 457-2038

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 December 7, 1992, during the performance of Preventive Maintenance procedure OPM-BKR008, Functional Testing of Molded Case Circuit Breakers, the technicians questioned the acceptability of a circuit breaker model TEF136M1100 installed in Motor Control Center (MCC) 1XG. This breaker compartment (EG6) is for 1A Standby Liquid Control (SLC) pump and should have been type THEF rather than type TEF.

The breaker was replaced on December 11, 1992, with a TEC type breaker that meets the design functional requirements.

By January 27, 1993, review of the engineering operability impact evaluation determined that with the non-seismically qualified breaker installed the Unit had operated outside of Technical Specification 3.1.5. This was based on the fact that, in the past, the redundant 1B SLC pump had been inoperable for periods longer than 8 hours, with the type TEF breaker installed on the redundant division (1A SLC pump breaker). Research found no maintenance activities that would have installed the TEF breaker. This, along with the March 1972 date code of the circuit breaker, indicates that this was the breaker originally supplied with the motor control center.

This isolated event is of minimal safety significance as the breaker performed with the same characteristics as the intended type THEF.

TITLE

480 VOLT BREAKER FOR STANDBY LIQUID CONTROL PUMP WAS FOUND WITH UNDOCUMENTED BREAKER TYPE

INITIAL CONDITIONS

The Unit is in Cold Shutdown and has been in an outage since April 21, 1992.

EVENT NARRATIVE

On December 7, 1992, during the performance of Preventive Maintenance procedure OPM-BKR008, Functional Testing of Molded Case Circuit Breakers, the technicians questioned the acceptability of a circuit breaker model TEF136M1100 installed in Motor Control Center (MCC) 1XG. This breaker compartment (EG6) is for 1A Standby Liquid Control (SLC) pump and should have been type THEF rather than the type TEF. The type TEF breaker was replaced with a Type TEC breaker on December 11, 1992, as a direct replacement package (92-0284) supporting Work Request/Job Order (WR/JO) 92-BHDN1.

By January 27, 1993, review of the engineering operability impact evaluation determined that with the non-seismically qualified breaker installed the Unit had operated outside of Technical Specification 3.1.5 (Standby Liquid Control System). This was based on the fact that, in the past, the redundant 1B SLC pump had been inoperable for periods longer than 8 hours with the non-qualified type TEF breaker installed on the redundant division (1A SLC pump breaker). Research found no maintenance activities that would have installed the non-seismically qualified breaker. This, along with the March 1972 date code of the circuit breaker, indicates that this was the breaker originally supplied with the MCC.

Engineering Work Request (EWR) 09414 evaluated the use of the TEF breaker in this application. While no design documentation was found that permits the use of the type TEF breaker, it is functionally compatible and test results showed it performed within the same characteristics as the intended type. The primary application difference is the interrupting capability. The interrupting capability of the type THEF breaker is rated at 25,000 amperes verses the rated 10,000 amperes for the type TEF, but in combination with the motor starter, the TEF breaker provided the 25,000 ampere interrupting capability.

An as-built verification of vital MCC compartment components was conducted in 1985 using Special Procedure SP85-085. This as-built verification was used to support the 480 VAC Motor Protection Study, EQ Component Verification and future voltage studies. Breaker compartment EG6 of MCC 1XG was as-built verified on December 4, 1985, as a type THEF136M1100 breaker. This discrepancy is considered as an isolated case of the as-built verifier incorrectly reading the breaker type as THEF136M1100 instead of a TEF136M1100. As an additional measure to ensure this incident was an isolated discrepancy, an inspection of 62 breakers susceptible to being incorrectly read during the SP85-085 as-built verification was conducted. No other discrepancies were found. This inspection comprised approximately twenty-five percent of the total population where a type TEF breaker could have been mistaken for a type THEF, THED, or TEC breaker. Based on the SP85-085 verification and the statistical sampling, this event is considered an isolated case.

CAUSE OF EVENT

The investigation has not determined when or how the undocumented TEF breaker was installed. The lack of activities that would have installed the TEF breaker leaves open the possibility that this was the breaker originally supplied with the MCC.

CORRECTIVE ACTIONS

- The type TEF breaker was replaced on December 11, 1992, as a direct replacement package (92-0284) with a type TEC36100 breaker.
- An inspection was conducted of the 1B SLC pump breaker and the Unit 2 SLC pump breakers to ensure the correct breaker types were installed. Also inspected was an approximately 25% sample (62 breakers) of the breakers susceptible to being incorrectly read during the SP85-085 as-built verification. No discrepancies were discovered.

SAFETY ASSESSMENT

This isolated event is of minimal safety significance as the breaker performed with the same characteristics as the intended type "THEF".

PREVIOUS SIMILAR EVENTS

None

EIIS COMPONENT IDENTIFICATION

System/Component	EIIS Code
Standby Liquid Control	BR