CP&L

Carolina Power & Light Company
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DEC 1 8 1995

SERIAL: BSEP- 95-0641
10 CFR 50.73

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. DPR-71
LICENSEE EVENT REPORT 1-95-21

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Part 50.73, Carolina Power & Light Company submits the enclosed Licensee Event Report. 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.

Please refer any questions regarding this submittal to Mr. K. A. Harris at (910) 457-3312.

Sincerely,

W. Levis, Director-Site Operations
Brunswick Nuclear Plant

SFT/

Enclosures
1. Licensee Event Report
2. Summary of Commitments

cc: Mr. S. D. Ebneter, Regional Administrator, Region II
Mr. D. C. Trimble, Jr., NRR Project Manager - Brunswick Units 1 and 2
Mr. C. A. Patterson, Brunswick NRC Senior Resident Inspector
The Honorable H. Wells, Chairman - North Carolina Utilities Commission

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NRC FORM 366 (5/92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 5/31/95
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT ( )

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Brunswick Steam Electric Plant, Unit 1	05000325	1 of 4

TITLE (4)
Inadequate Post Maintenance Testing of Containment Radiation Monitor

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
11	16	95	95	- 21 -	00	12	18	95		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1
POWER LEVEL (10)	100

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
Steve F. Tabor, Regulatory Affairs Specialist	(910) 457-2178

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 November 16, 1995, with Unit 1 operating at rated power and while attempting the performance of scheduled surveillance on the Unit 1 drywell iodine radiation monitor, 1-CAC-AQH-1260-2, surveillance technicians identified that the monitor signal test jacks required for loop calibration were not installed. Further review revealed that the monitor had been replaced on March 17, 1995, without the signal test jacks being installed. Recognizing that the signal test jacks are required to perform the loop calibration, a review of the monitor replacement work package was performed to determine whether the testing required to ensure operability had been completed prior to returning the monitor to service. This review revealed that the monitor loop calibration test, required to ensure operability of the monitor, had not been performed following replacement of the monitor on March 17, 1995. On November 16, 1995, the signal test jacks required to complete the monitor loop calibration were installed and the loop calibration test attempted. The count rate module would not calibrate to within acceptable tolerances. Investigation into the cause of the event determined that the process used to determine appropriate post maintenance testing did not ensure test accomplishment. The monitor was replaced, surveillance testing successfully performed, and returned to service by November 19, 1995. Revisions to the post maintenance testing process will be performed to prevent recurrence. This event is of minimal safety significance in that the other particulate and gaseous radiation channels of the monitor or the redundant drywell radiation monitor (1-CAC-AT-1262) remained operable. Additionally, the drywell area radiation monitor system which provides the RG 1.97 post accident radiation monitoring function remained operable. The cause classification for this event per the criteria of NUREG-1022 is E due to programmatic deficiencies.

TITLE

Inadequate Post Maintenance Testing of Containment Radiation Monitor

INITIAL CONDITIONS

On November 16, 1995, Unit 1 was operating at rated power. Performance of the scheduled Technical Specification required Containment Atmospheric Control radiation monitor surveillance was in progress.

EVENT NARRATIVE

On March 16, 1995, the Containment Atmospheric Control (CAC) system drywell iodine radiation monitor, 1-CAC-AQH-1260-2, was declared inoperable due to failure of the associated annunciator logic to test satisfactorily. On March 17, 1995, troubleshooting of the problem was initiated. Troubleshooting determined that the monitor's count rate module low voltage power supply and signal amplifier board were defective and required replacement. A new count rate module and signal amplifier board were installed and calibrated in accordance with maintenance procedures. On March 18, 1995, Operations declared the monitor operable following verification that the channel functional test was completed satisfactorily as specified by the Post Maintenance Test Requirement (PMTR).

On November 16, 1995, during performance of the 18 month Technical Specification required loop calibration procedure on the 1-CAC-AQH-1260-2, surveillance technicians discovered that the signal test jacks required for loop calibration testing were not installed in the monitor's count rate module. Investigation into the missing jacks revealed that the defective count rate module removed in March had been modified to include the signal test jacks in accordance with approved plant modification procedures in 1978. The new count rate module installed in March had not been modified to include the signal test jacks prior to installation. Recognizing that the signal test jacks are required to perform the loop calibration, a review of the monitor replacement work package was performed to determine whether the testing required to ensure operability had been completed prior to returning the monitor to service. This review determined that, although individual component testing and calibration checks had been performed following replacement of the defective monitor components in March, the loop calibration required to ensure the operability of the monitor had not been performed.

On November 16, 1995, the signal test jacks required to complete the monitor loop calibration were installed and the loop calibration test attempted. The count rate module would not calibrate to within acceptable tolerances. The monitor was replaced, surveillance testing successfully performed, and returned to service by November 19, 1995.

This event is being reported in accordance with the requirements of 10 CFR 50.73 (a)(2)(i) in that the failure to perform the loop calibration of the drywell iodine radiation monitor and thus ensure monitor operability prior to returning the monitor to service represents a condition prohibited by the plant's Technical Specification requirements for post accident monitoring.

CAUSE OF EVENT

The process used to determine appropriate post maintenance testing did not ensure test accomplishment. In accordance with the established process the PMTR developer and/or the Work Control Center (WCC) Senior Reactor Operator (SRO) determine operability testing requirements by reviewing maintenance work packages prior to implementation. Any in-process testing specified by the maintenance planner in the work instructions is reviewed by the PMTR developer and the WCC SRO. Any additional testing required to ensure system operability is then specified on the PMTR sheet. In this event, the work instruction directed the technician to "inform" Operations personnel that operability was contingent upon Environmental & Radiation Control group's performance of the loop calibration procedure. Since the loop calibration requirement was specified in the work instruction the PMTR developer did not re-specify the loop calibration procedure on the PMTR form. Prior to declaring the monitor operable Operations ensured that the post maintenance testing specified on the PMTR form (the channel functional test only) had been completed satisfactorily. The investigation into the cause of this event determined that the need to perform the loop calibration procedure was not clearly communicated to either Operations or E&RC effectively. Had the work instruction required validating the completion of the loop calibration procedure as opposed to notifying personnel of the need to perform the testing or had the loop calibration been specified on the PMTR form, this event would not have occurred.

CORRECTIVE ACTIONS

Maintenance planners have been directed to no longer specify post maintenance Technical Specification required operability tests in the work instruction section of the Work Request/Job Order. Test requirements developed during the maintenance planning process are being limited to in-process or good maintenance practice type testing.

The applicable PMTR process procedures will be revised by January 31, 1996, to require that all operability testing be specified on the appropriate sections of the PMTR form.

As an interim measure, management notified appropriate site personnel that post maintenance operability testing is required to be identified on the PMTR form even though the same test requirement may be specified in the work instruction.

A review of past maintenance performed on the Unit 1 and 2 drywell radiation monitors since completion of the last routine monitor surveillance identified that appropriate post maintenance testing had been specified.

The Equipment Data Base System and Stock Inventory System databases have been revised to reflect the need to modify the drywell radiation monitor count rate modules to include signal test jacks when replacing the modules.

SAFETY ASSESSMENT

This event is of minimal safety significance. The drywell iodine radiation monitors provide indication of increased radioactivity that would be indicative of leakage into the drywell. The other particulate and gaseous radiation channels of the

monitor or the redundant drywell radiation monitor (1-CAC-AT-1262) remained operable. Additionally, the drywell area radiation monitor system which provides the RG 1.97 post accident radiation monitoring function remained operable.

PREVIOUS SIMILAR EVENTS

LER 1-95-002 reported a similar event involving inadequate post maintenance testing.

EIIS COMPONENT IDENTIFICATION

System/Component	EIIS Code
Post Accident Monitoring System	IP

Enclosure
List of Regulatory Commitments

The following table identifies those actions committed to by Carolina Power & Light Company in this document. Any other actions discussed in the submittal represent intended or planned actions by Carolina Power & Light Company. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager-Regulatory Affairs at the Brunswick Nuclear Plant of any questions regarding this document or any associated regulatory commitments.

Commitment	Committed date or outage
The applicable PMTR process procedures will be revised to require that all operability testing be specified on the appropriate sections of the PMTR form.	1/31/96