



Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

NOV 05 1996

SERIAL: BSEP 96-0408
10 CFR 50.73

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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 1
DOCKET NO. 50-325/LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-96-014

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.

Please refer any questions regarding this submittal to Mr. Mark Turkal at (910) 457-3066.

Sincerely,

W. Levis, Director - Site Operations
Brunswick Nuclear Plant

SFT/sft

Enclosures

1. Licensee Event Report
2. Summary of Commitments

cc: Mr. S. D. Ebner, Regional Administrator, Region II
Mr. D. C. Trimble, 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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Levis

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION
COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO
THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING
BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33)
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.

FACILITY NAME (1)

Brunswick Steam Electric Plant, Unit 1

DOCKET NUMBER (2)

05000325

PAGE (3)

1 OF 3

TITLE (4)

Loss Of Shutdown Cooling During Instrument Rack Repair

| 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 |
| 10 | 11 | 96 | 96 | -- 14 | -- 00 | 11 | 05 | 96 | FACILITY NAME | DOCKET NUMBER |
| | | | | | | | | | | 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |
| | | | | | | | | | | 05000 |

| OPERATING MODE (9) | 5 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11) | | | |
|-----------------------|----|---|-------------------|-------------------|--|
| POWER LEVEL (10) | 0% | 20.2201(b) | 20.2203(a)(2)(v) | 50.73(a)(2)(i) | 50.73(a)(2)(viii) |
| | | 20.2203(a)(1) | 20.2203(a)(3)(i) | 50.73(a)(2)(ii) | 50.73(a)(2)(x) |
| | | 20.2203(a)(2)(i) | 20.2203(a)(3)(ii) | 50.73(a)(2)(iii) | 73.71 |
| | | 20.2203(a)(2)(ii) | 20.2203(a)(4) | X 50.73(a)(2)(iv) | OTHER |
| | | 20.2203(a)(2)(iii) | 50.36(c)(1) | 50.73(a)(2)(v) | Specify in Abstract below or in NRC Form 366A |
| | | 20.2203(a)(2)(iv) | 50.36(c)(2) | 50.73(a)(2)(vii) | |

LICENSEE CONTACT FOR THIS LER (12)

NAME

Steve Tabor , Sr. Analyst - Licensing

TELEPHONE NUMBER (Include Area Code)

(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 |
|-------|--------|-----------|--------------|------------------------|-------|--------|-----------|--------------|------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
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SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

X

NO

EXPECTED
SUBMISSION
DATE (15)

MONTH

DAY

YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On October 11, 1996, at approximately 1745 hours, on day 7 of the Unit 1 B111R1 refuel outage, a partial Primary Containment Isolation System (PCIS) Group 8 isolation signal was received resulting in the closure of the Shutdown Cooling Outboard Suction Isolation Valve. A modification to support structural repairs to instrument racks located in the Unit 1 Reactor Building was in progress. The shutdown cooling loop was isolated for approximately 8 minutes until the isolation signal could be reset, the isolation valve reopened, and the shutdown cooling pump restarted. During execution of the instrument rack modification craft personnel were attempting to install an anchor bolt in an instrument rack supporting reactor pressure switch 1-B32-PS-N018B, high pressure permissive for Shutdown Cooling Outboard Suction Isolation Valve, when the spurious actuation of the Shutdown Cooling Outboard Suction Isolation valve occurred. The pressure switch was apparently disturbed during the anchor bolt installation resulting in the spurious actuation.

The cause of this event is attributed to the failure to appropriately schedule work activities. The instrument rack work was originally scheduled correctly and validated by the outage risk assessment. Subsequently, the work was rescheduled inappropriately without additional risk assessment. Personnel involved with the scheduling did not ensure an additional risk assessment was performed once the schedule was changed. Following the event instrument rack related work was suspended until a review could be performed to determine if work could continue as scheduled. Additional actions include a review of similar outage work to ensure appropriate work scheduling. In addition, stand-downs with appropriate engineering, work scheduling, and work implementation personnel were conducted to discuss the significance of this event. The safety significance of this event is considered minimal. Coolant temperature increased less than one degree Fahrenheit during the event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
|--|----------------------|----------------|----------------------|--------------------|----------|
| Brunswick Steam Electric Plant, Unit 1 | 05000325 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 2 OF 3 |
| | | 96 | -- 14 | -- 00 | |

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

TITLE

Loss Of Shutdown Cooling During Instrument Rack Repair

INITIAL CONDITIONS

On October 11, 1996, Unit 1 was in day 7 of refuel outage B111R1 with the reactor cavity flooded and the fuel pool gates removed. Core off-load was in progress with approximately 205 fuel assemblies transferred to the Spent Fuel Pool. The Residual Heat Removal System B loop was supporting shutdown cooling operation. The Supplemental Fuel Pool Cooling system was in service. A modification to support structural repairs to instrument racks located in the Unit 1 Reactor Building was in progress.

EVENT NARRATIVE

On October 11, 1996, at approximately 1745 hours, a partial Primary Containment Isolation System (PCIS) Group 8 isolation signal was received resulting in the closure of the Shutdown Cooling Outboard Suction Isolation Valve. Shutdown cooling was isolated for approximately 8 minutes until the isolation signal could be reset, the isolation valve reopened, and the shutdown cooling pump restarted.

At the time of the event, a modification to support structural repairs to instrument racks located in the Unit 1 Reactor Building was in progress. During execution of the instrument rack modification, craft personnel were attempting to install an anchor bolt in an instrument rack supporting reactor pressure switch 1-B32-PS-N018B, high pressure permissive for Shutdown Cooling Outboard Suction Isolation Valve, when the spurious actuation of the Shutdown Cooling Outboard Suction Isolation valve occurred. The pressure switch was apparently disturbed during the anchor bolt installation resulting in the spurious actuation.

This event is being reported in accordance with the requirements of 10 CFR 50.73 (a)(2)(iv) in that the loss of shutdown cooling resulted from the automatic actuation of an Engineered Safety Feature.

CAUSE OF EVENT

The cause of this event is attributed to the failure to appropriately schedule work activities. The instrument rack work was originally scheduled correctly and validated by the outage risk assessment. Subsequently, the work was rescheduled inappropriately without additional risk assessment. Personnel involved with the scheduling did not ensure an additional risk assessment was performed once the schedule was changed. In addition, the instrument rack modification work package required a pre-job brief with Operations; however, the pre-job brief performed did not include Operations personnel. Consequently, Operations was not given the opportunity to assess the impact of the work on plant operations prior to the event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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|--|----------------------|----------------|----------------------|--------------------|----------|
| Brunswick Steam Electric Plant, Unit 1 | 05000325 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 3 OF 3 |
| | | 96 | -- 14 | -- 00 | |

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

CORRECTIVE ACTIONS

Following restoration of shutdown cooling, instrument rack related work was suspended until the shift outage manager could complete a review of scheduled outage related instrument rack work. Rescheduling of instrument rack work was performed as appropriate to ensure similar events would not occur.

Other modification work packages scheduled for implementation during the B111R1 outage were reviewed to ensure appropriate scheduling of the work.

Stand-downs were conducted with appropriate engineering, work scheduling, and work implementation personnel to discuss the significance of this event and emphasize management's expectations related to work scheduling changes and work practices.

Management has taken appropriate administrative action with the personnel involved with the scheduling error.

SAFETY ASSESSMENT

The safety significance of this event is considered minimal. The reactor cavity was flooded and the gates to the fuel pool were removed. Approximately 205 fuel assemblies had been transferred to the spent fuel pool, with supplemental fuel pool cooling in service for heat removal. Shutdown cooling was isolated for approximately 8 minutes. During this time an increase in reactor coolant temperature of approximately 0.7° F occurred. At the time of the event the calculated heatup rate was 4.83° F/HR and calculated time to boil was 26 hours.

PREVIOUS SIMILAR EVENTS

LERs involving the loss of a shutdown cooling event due to scheduling errors were not identified.

EIIS COMPONENT IDENTIFICATIONSystem/ComponentEIIS Code

Primary Containment Isolation System

JM

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 |
|------------|-----------------------------|
| NONE | |