



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

NOV 22 1994

SERIAL:BSEP 94-0480
10CFR2.201

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

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REPLY TO A NOTICE OF VIOLATION

Gentlemen:

On October 28, 1994, the Nuclear Regulatory Commission (NRC) issued a Notice of Violation for the Brunswick Steam Electric Plant, Units 1 and 2. The basis for the violation is provided in NRC Inspection Report 50-325/94-28 and 50-324/94-28. Furthermore, Carolina Power & Light recognizes that preceding the Spent Fuel Pool overflow event, attention to pool level control was not effectively implemented; however, since the event the necessary*corrective actions have been implemented to ensure continued proper operation of the system.

Carolina Power & Light Company finds the inspection does not contain information of a proprietary nature. Enclosure 1 provides Carolina Power & Light Company's response to the Notice of Violation in accordance with the provisions of 10CFR2.201.

Please refer any questions regarding this submittal to Mr. G. M. Thearling at (910) 457-2038.

Very truly yours,

J. Cowan, Director-Site Operations
Brunswick Nuclear Plant

GMT/

Enclosures

1. Reply to Notice of Violation
2. List of Commitments

cc: Mr. S. D. Ebner, Regional Administrator, Region II
Mr. P. D. Milano, NRR Senior Project Manager - Brunswick Units 1 and 2
Mr. C. A. Patterson, Brunswick NRC Senior Resident Inspector
The Honorable Hugh Wells, Chairman of the N.C. Utilities Commission

9411300285 941122
PDR ADDCK 05000324
PDR

IEO/11

bcc: Mr. T. A. Baxter
SHEEC Training Reference
INPO Records Receipt

ENCLOSURE

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 and 2
NRC DOCKET NOS. 50-325 & 50-324
OPERATING LICENSE NOS. DPR-71 & DPR-62
REPLY TO NOTICE OF VIOLATION

VIOLATION A :

During an NRC inspection conducted on September 2 - 30, 1994, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

Technical Specification 6.8.1 requires that written procedures shall be established, implemented, and maintained covering the procedures recommended Appendix 'A' of Regulatory Guide 1.33, November 1972.

Regulatory Guide 1.33 requires procedures for operation of the fuel storage pool cooling system and fuel handling equipment.

Operating Procedure OP-13, Fuel Pool Cooling and Cleanup System Operating Procedure, specifies that the skimmer surge tanks and fuel pool shall not be filled above 37 feet 9 inches.

Fuel Handling Procedure, OFH-20, Control Rod Transfer Using the Control Rod Transfer System, specifies that fuel pool water level be independently verified between 37 feet 9 inches and 37 feet 10 inches or raise level per OP-13.

Contrary to the above, the licensee failed to adequately maintain Operating Procedure OP-13 and Fuel Handling Procedure OFH-20, in that the fuel pool level requirements conflicted. This resulted in the pool level being raised to 37 feet 9.5 inches on September 8, 1994, exceeding OP-13 requirements. Additionally, the higher level contributed to the subsequent fuel pool overflow due to a leaking unit cross-tie valve.

This is a Severity Level IV violation applicable to both units (Supplement I).

RESPONSE TO VIOLATION A :

Admission or Denial of Violation

Carolina Power & Light admits this violation.

Reason for Violation

Revisions to 1/2 OP-13, Fuel Pool Cooling And Cleanup System Operating Procedures, and OFH-20, Control Rod Transfer Using The Control Rod Transfer Station, have not been well coordinated, resulting in conflicting directions regarding level allowances and control. The 1/2 OP-13 normal operations level limit was based on not over flowing the fuel pool. The OFH-20 transfer evolution level band ensured 6 feet of water above the control rod. The different intent of these procedures resulted in providing conflicting level bands. These procedures have been changed to incorporate consistent level guidance.

The conflicts in these procedures contributed to the amount spilled from the Unit 2 Spent Fuel Pool on September 8, 1994. The primary cause of the spill was equipment malfunction, in that a crosstie valve between Unit 1 and Unit 2 was leaking (2-G41-Z001-V64, WR/JO 94-AMPE1), causing a water transfer from Unit 1 to Unit 2. The spill was contained in the reactor building and no release to the public resulted.

Corrective Actions Which Have Been Taken and Results Achieved

The following corrective actions have been taken to address items identified in this violation:

- 1) 1OP-13, Rev 26, and 2OP-13, Rev 46, were approved on October 21, 1994, to remove ambiguities concerning desired spent fuel pool level, including the normal level band specified in Section 6.0. These revisions consisted of: A) providing a new spent fuel pool normal level band of 37 feet 6 inches to 37 feet 9 inches in Section 6.0, B) revising Section 8.13 such that it only applies to raising spent fuel pool skimmer surge tank level, C) requiring a Work Request/ Job Order (WR/JO) to change the weirs if it is planned to increase pool level above the normal band. A safety analysis (UFSAR Change Request No 94FSAR057) was performed to address any concerns encountered in lowering the spent fuel pool normal level band lower end to 37 feet 6 inches.
- 2) OFH-20, Rev 5, was approved on October 20, 1994, to delete the requirement to raise the spent fuel pool level above the normal level band. Level is now verified to be between 37 feet 6 inches and 37 feet 9 inches. Changes were also incorporated to account for the reduced water level (5 feet 9 inches vs 6 feet 0 inches) above the control rod blades that results from the new lower end of the spent fuel pool level band of 37 feet 6 inches. The safety analysis mentioned above addressed the change in radiation levels expected.
- 3) The remaining Fuel Handling procedures were reviewed for consistency with the new OP-13 revisions. No other revisions were identified.

Corrective Steps Which Will Be Taken to Avoid Further Violations

- 1) Training will be provided to nuclear operators on the relationship between spent fuel pool level, the spent fuel pool skimmer surge tank weir, and the ventilation ducts. Also to be included is a discussion on the flow gradients associated with the weirs.

Date When Full Compliance Will Be Achieved

Carolina Power & Light is currently in full compliance.

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
Training will be provided to nuclear operators on the relationship between spent fuel pool level, the spent fuel pool skimmer surge tank weir, and the ventilation ducts. Also to be included is a discussion on the flow gradients associated with the weirs.	04/30/95