



Carolina Power & Light Company

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Brunswick Steam Electric Plant  
P. O. Box 10429 <sup>34</sup>  
Southport, NC 28461-0429  
March 20, 1985

FILE: B09-13510E  
SERIAL: BSEP/85-0526

Dr. J. Nelson Grace, Administrator  
U.S. Nuclear Regulatory Commission  
Suite 2900  
101 Marietta Street N.W.  
Atlanta, GA 30303

BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2  
DOCKET NOS. 50-323 AND 50-324  
LICENSE NOS. DPR-71 AND DPR-62  
RESPONSE TO INFRACTIONS OF NRC REQUIREMENTS A

Dear Dr. Grace:

The Brunswick Steam Electric Plant (BSEP) has received I&E Inspection Report 50-325/84-39 and 50-324/84-39 and finds that it does not contain information of a proprietary nature.

This report identified one item that appeared to be in noncompliance with NRC requirements. Enclosed please find Carolina Power & Light Company's response to this violation. In addition, it was requested that we respond to the Inspector Follow-Up Item 84-39-02. That response is also included.

Very truly yours,

C. R. Dietz, General Manager  
Brunswick Steam Electric Plant

RMP/dj/LETDJ1

Enclosures

cc: NRC Document Control Desk

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VIOLATION:

Technical Specification 6.8.1.a requires written procedures be implemented covering procedures recommended in Appendix A of Regulatory Guide 1.33, November 1972. Item A.4 of Appendix A requires procedures be established for procedure adherence and temporary change method.

Section 4.1 of OI-01, Operating Principles and Philosophy, states that procedure compliance is mandatory.

Section 4.3.1.3 of OI-01 states that an operator may omit a step only if the step is applicable under a given condition as described in the step and is determined to be inapplicable by the operator, or if only a given portion of a procedure is required to be completed (i.e., performance of only a portion of a periodic test is required to satisfy a given PMTR).

Contrary to the above, the licensee failed to implement procedure OI-01, in that while performing Section 5 of OP-17, Residual Heat Removal (RHR) System Operating Procedure, on November 27 and 28, 1984, a water sample was not obtained from the RHR System to verify that the conductivity of the RHR System was less than 10  $\mu\text{mho/cm}$  as required by Steps 17 and 41.

This is a Severity Level IV violation (Supplement I).

RESPONSE:

I. Admission or Denial of the Alleged Violation:

Carolina Power & Light acknowledges Section 4.3.1.3 of OI-01 was not properly implemented.

II. Reason for Violation:

The intent of the steps in OP-17 related to sampling are to ensure an adequate flush of the RHR System to prevent communication of high conductivity water with the reactor vessel upon entry into shutdown cooling. Assurance that this intent was met was obtained in an alternate manner; i.e., the duration of the flush assured displacement of any high conductivity water from the RHR System. In the judgment of the Shift Operating Supervisor and Shift Foreman, both of whom were Senior Reactor Operator licensed, these steps were not applicable based upon the alternative assurance of intent being met. It was the belief of personnel on shift that allowance is given, as it should be, procedurally for judgment of senior licensed personnel on shift in such situations.

III. Corrective Actions Which Have Been Taken:

OI-01 has been revised (revision 13) to provide better direction in situations such as this. The procedure allows for steps to be indicated "N/A" when in the opinion of two members of the plant management staff, one of which holds a Senior Reactor Operator license, the intent of the procedure is filled. This will be noted in the remarks section of the procedure and a permanent revision initiated if required.

RESPONSE: (Cont'd)

IV. Corrective Actions Which Will Be Taken:

None.

V. Date Full Compliance Will Be Achieved:

Not applicable.

INSPECTOR FOLLOW-UP ITEM (paragraph 5c):

The root cause of the water hammer and vessel draining event was determined to be that the output signal of controller E11-SS-F605A was selected to the HI jack as opposed to the LO jack as required for the procedure to perform its intended function. Controller E11-SS-F605A was last calibrated on May 5, 1984, at which time records show that the output signal followed the lower of the two input signals as required. For the output of the controller to be switched from the LO position to the HI position, the controller had to be opened up and the output plug unplugged from the LO position and then plugged into the HI position. Investigation by the licensee to determine how the output plug could have been moved provided no explanation. No documentation could be found that performed additional work on the controller.

The inspectors expressed a concern about the apparent lack of adequate controls established concerning manipulations of the output jack of controller E11-SS-F605A. No maintenance or operational procedure could be identified that manipulated the output plug and whatever caused the movement of the plug from the LO position to the HI position did not ensure return of the plug to its proper position. In a telephone conversation on February 1, 1985, the inspector informed the plant manager that this issue should be addressed by the plant in its response to this report. This item will be identified as IFI (50-324, 325/84-39-02).

RESPONSE:

An investigation was conducted to determine the cause of the water hammer events. This investigation determined that the E11-F053A valve was traveling to the full open position when the controller was turned on, whereas the E11-F053A valve should remain closed. The E11-SS-F605A HI/LO auto selector station for the E11-F053A valve receives a signal from the E11-LIC-R604A RHR heat exchanger level controller and the E11-PIC-R609 RCIC suction pressure controller. When the E11-SS-R605 signal jack is in the HI position, the higher of the two signals (level/pressure) is used for control of the E11-F053A, and when in LO, the lower of the two is used. Plant procedures require that the jack be left in the LO position. During these events, the E11-SS-R605 jack was in the HI position. Therefore, when the RCIC suction pressure controller was set to auto in accordance with the procedure (OP-17) with a setpoint greater than the actual (existing) RCIC suction pressure, the controller output increased, causing the E11-F053A valve to ramp open. However, the E11-F053A valve was expected to have remained closed until the RHR heat exchanger level controller output was subsequently increased.

To prevent this problem in the future, the following actions have been or will be taken:

1. The signal jack was repositioned to the correct plug.
2. Plant procedures have been revised to require stroke checks or other position verification on the F053 valves prior to opening the downstream F011 valves.

RESPONSE: (Cont'd)

3. Water hammer damage to the supports have been repaired.
4. Engineering will evaluate the need to modify the steam-condensing portion of the system and complete any modifications required.
5. Real time training in this event is being provided to licensed operators.