

CP&L

Carolina Power & Light Company

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Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429
January 30, 1985

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Mr. James P. O'Reilly, Administrator
U. S. Nuclear Regulatory Commission
Region II, Suite 3100
101 Marietta Street N.W.
Atlanta, GA 30303

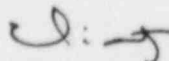
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
RESPONSE TO INFRACTIONS OF NRC REQUIREMENTS

Dear Mr. O'Reilly:

The Brunswick Steam Electric Plant (BSEP) has received I&E Inspection Report 50-325/84-31 and 50-324/84-31 and finds that it does not contain information of a proprietary nature.

This report identified two items that appeared to be in noncompliance with NRC requirements and one item that appeared to deviate from commitments to the NRC. Enclosed please find Carolina Power & Light Company's response to the two violations and the deviation.

Very truly yours,



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

RMP/vt/LETDR1

Enclosure

cc: Mr. R. C. DeYoung
NRC Document Control Desk

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VIOLATION 1

Section 4 of the Technical Specifications identifies specific checks, tests, and calibrations that must be performed at specific intervals to demonstrate operability of systems and components required by Section 3. Technical Specification 6.8.1.a requires the licensee to establish implementing procedures recommended in Appendix A of Regulatory Guide 1.33, November 1972. Item H.2 of the guide specifies that procedures are required for each surveillance test, inspection, and calibration listed in the Technical Specifications.

Contrary to the above, the licensee did not establish adequate procedures for Technical Specification Surveillance 4.3.2.2, in that testing procedure PT-02.1.27 did not verify that the suction and discharge valves for both standby gas treatment (SBGT) trains A and B (B, C, E, and G-BFV-RB) and the Reactor Building suction valves (D, H-BFV-RB) opened during the logic system functional test for the drywell high pressure and reactor low-low water level instruments.

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

RESPONSE 1

A. Admission or Denial of Alleged Violation

Carolina Power & Light Company acknowledges that the violation occurred as stated.

B. Reason for the Violation if Admitted

An investigation of this event indicates that two separate contributors led to this event:

1. Technical Specification Surveillance 4.3.2.2 is the logic functional test for the isolation actuation instrumentation. It is felt that when this procedure was developed (PT-02.1.27), the intent of the test requirement was to test that logic directly associated with the isolation function. The dampers in question receive auto open signals during a SBGT actuation and, therefore, may not have been viewed as requiring testing under the isolation specification.
2. A review of the logic prints from which the required testing would have been identified revealed that they were not updated to reflect the activation contacts for the B, C, E, and G-BFV-RB valves on Unit 2. The actuation contacts were added to the logic points in August 1984.

C. Corrective Steps Which Have Been Taken

Special procedures SP-84-081 and SP-84-088 were established and performed to verify proper actuation of the B, C, D, F, C, and H-BFV-RB valves on Unit 2 and valves D and H-BFV-RB on Unit 1. These tests verified system actuation on: 1) high drywell pressure; 2) low reactor water level (LL #2); 3) high Reactor Building exhaust radiation, as appropriate.

D. Corrective Actions Which Will be Taken

1. The provisions of the special test performed to verify operability are being incorporated into plant surveillance procedures to assure future testing is conducted as required.
2. Instrumentation and Control periodic tests used to satisfy technical specifications are currently being reviewed and rewritten in an improved format. An expanded perspective is being applied to those tests involving system logic functional testing to assure they satisfy the technical specification requirements. This was previously addressed in our response to I&E Inspection Report 84-30.
3. The plant Technical Support group has been tasked to implement controls ensuring that drawing updates which involve logic changes include a trigger mechanism to ensure appropriate plant procedures are revised as required.

E. Date When Full Compliance Will be Achieved

The procedure revisions identified in D.1 and D.3 above will be completed by July 11, 1985. The rewrite program identified in D.2 above is currently scheduled to be completed by October 31, 1985.

VIOLATION 2

10CFR Appendix B, Criteria V, requires procedures to include appropriate qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. ENP-03, implementing the approved QA program, states acceptance tests shall verify performance requirements to the extent necessary to determine operability.

Contrary to the above, the acceptance test in PM 83-262 did not adequately require verification in that the SJAЕ radiation monitor was found to be sampling the Turbine Building air instead of the off-gas process stream as a result of a solenoid valve which had been incorrectly installed as a part of PM 83-262.

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

RESPONSE

A. Admission or Denial of the Alleged Violation

Carolina Power & Light Company acknowledges that the violation occurred as stated.

B. Reason for the Violation if Admitted

Personnel responsible for establishing the acceptance test for this portion of PM 84-262 failed to assure an adequate test was performed. The acceptance test was written only to assure that the solenoid activated with the required input signal, not to verify that the piping connections assured proper system operation once the solenoid operated.

C. Corrective Steps Which Have Been Taken

1. The valve was retubed and functional tests were performed to verify proper valve response and system flow through the valve. Following this testing, the system was returned to service.
2. The Brunswick Engineering Support Unit (BESU) has instituted a program to train personnel who either are involved in the preparation of functional test procedures and/or review and approve plant modifications. This event was brought to the attention of the unit's lead engineers in a weekly staff meeting.
3. Additional procedural guidance has been provided to BESU personnel through the development of BESU Practice 5.2, PM Acceptance Testing-Functional Testing.

D. Corrective Actions Which Will be Taken

None

E. Date Full Compliance Will be Achieved

Full compliance has been achieved.

DEVIATION

Based on the results of the NRC inspection conducted on October 15-November 30, 1984, certain of your activities appear to deviate from your commitments to the Commission as indicated below:

Appendix M, Response M14.5, of the pre-1983 FSAR and Section 6.4.2.2 of the updated FSAR state that four chlorine detectors will cause a Control Room isolation upon sensing a high chlorine condition.

Contrary to the above, plant design is such that only two chlorine detectors will cause an isolation. This condition appears to have been the original plant design and not upgraded per the commitments.

RESPONSE

A. Corrective Actions Regarding this Deviation

To correct this event, Carolina Power & Light Company has taken or is taking the following actions:

1. Complete

Until the Chlorine Detection System can be restored to design commitments, the following actions have been implemented to assure adequate chlorine protection for Operations personnel in the Control Room:

- a. Required surveillance on the Control Building air intake plenum detectors (1[2]-X-AT-2977) is being performed weekly vice monthly.

- b. Standing instructions have been established to require the isolation of the CB HVAC upon the receipt of a high chlorine annunciation from the 1(2)-X-AT-2978 chlorine detectors. These detectors are located in the building adjacent to the chlorine storage tank car and have an alarm function only. This isolation will be maintained until the integrity of the Chlorine System is verified. In addition, the weekly surveillance identified in 1.a above will also be performed on the 1(2)-X-AT-2978 detectors.
- c. An investigation as to why the plant design did not reflect the commitment as made in the FSAR was performed by Carolina Power & Light Company with assistance from the Brunswick AE, United Engineers & Constructors (UE&C). This investigation revealed that the design of the Chlorine Detection System and its installation was directed by the mechanical discipline of UE&C. This design and installation was predicated on an analysis which did not require remote isolation requirements. The commitment as identified in the FSAR was apparently generated by the electrical discipline of UE&C following their review of a draft Regulatory Guide (later to be Regulatory Guide 1.95). Inadequate communication between the two disciplines led to the system being designed to one specification and a commitment to design it to a different specification.
- d. A thorough review of the Chlorine Detection System has been performed. This was conducted by plant Engineering with the assistance of the chlorine detector vendor as required. No additional design problems were identified which were in conflict with the FSAR.

2. In Progress

- a. Plant modifications are currently in progress on the Control Building intake plenum detectors to improve the reliability of these chlorine detectors. These include rerouting the detector suctions and changing the suction piping per vendor recommendations.
- b. Plant Engineering is developing a project plan to ensure that the design of the Chlorine Detection System meets applicable codes, regulations, and commitments. This plan will define the final work scope required to correct the design deviation and a schedule for completion. This plan will incorporate outside engineering and vendor assistance as required.

B. Actions Taken to Avoid Further Deviations

1. The FSAR update in 1982 placed the question and answer section (Appendix M) in the appropriate chapters of the FSAR. This action assures that when a system is to be modified and the FSAR is reviewed for design requirements, those requirements can be readily located in the appropriate chapter and not hidden in an appendix.

2. Plant operating procedures and 10CFR50.59 require that design changes to the facility must be reviewed against the FSAR and appropriate evaluations made as to design changes. Based on these required evaluations on plant modifications and the improved reformatted/updated FSAR, future plant design changes should not deviate from the FSAR, except as allowed by regulations.

C. Dates When Actions Were or Will be Completed

1. The items identified in A.1 were completed on January 25, 1985. Items A.1.a and b were completed by December 19, 1984.
2. Item A.2.a is expected to be completed by February 4, 1985.
3. Item A.2.b is expected to be completed by February 22, 1985. This date is dependent on additional input to be received from UE&C.

Additional information on this event can be found in LER 1-84-33 for the Brunswick facility.