



**Carolina Power & Light Company**

Brunswick Nuclear Project  
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December 8, 1989

FILE: B09-13510C  
SERIAL: BSEP/89-1093

10CFR2.201

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

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

Gentlemen:

The Brunswick Steam Electric Plant (BSEP) has received I&E inspection Reports 50-325/89-32 and 50-324/89-32 and finds that it does not contain information of a proprietary nature.

This report identified nine items that appeared to be in noncompliance with NRC requirements. Enclosed is Carolina Power & Light Company's response to these violations.

Very truly yours,

J. L. Harness, General Manager  
Brunswick Nuclear Project

MJP/mcg

Enclosure

cc: Mr. S. D. Ebnetter  
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## VIOLATION A

10CFR50, Appendix B, Criterion XVII, and the licensee's accepted Quality Assurance (QA) Program collectively require that sufficient records be maintained to provide documentary evidence of the accomplishment of activities affecting quality. Technical Specification 6.10.1 further states that records of surveillance activities shall be retained for at least five years.

Contrary to the above, records of activities regarding the venting and draining of containment penetrations before local leak rate testing were not being maintained for five years.

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

## RESPONSE

### I. Acceptance or Denial of the Violation

CP&L acknowledges that the documentation necessary to verify that no static water head exists external to a test valve, which could mask leakage during the performance of the local leak rate test, is not being maintained for the required five year period.

### II. Reason for the Violation

The periodic test procedures (i.e., PT-20.3 and PT-20.3a.1-.4) governing the performance of Appendix J Type 'C' local leak rate tests specify draining of the test volume. To ensure that the test volume is drained, the test procedures are written to initiate an equipment clearance. When Operations personnel hang the equipment clearance, they open the appropriate valves to drain the test volume. In addition, a step is incorporated in each test procedure to have the test technician accept the equipment clearance. This acceptance verifies the equipment clearance reflects the required position specified in the procedure.

Some test procedures may have water in the test volume after the equipment clearance. For these tests, step(s) are included in the test sequence to ensure the test volume is drained prior to the performance of the test. These test procedures are QA records and are retained as required by Technical Specification 6.10.1.

Where static water head is 'known' to exist external to the test valve, the test procedure is written to elevate the test pressure to overcome the known water head, or provisions are stated in the test procedures to provide proper guidance for draining. For these tests, Technical Specification 6.10.1 is met since the test procedure is a QA record and retained as required by Technical Specification 6.10.1.

For the remaining tests within a fluid boundary, the present practice is as stated in the violation. The ISI group completes a Clearance Request Form (Attachment L of AI-58), along with the appropriate equipment clearance for proper valve alignment. The completion of the Clearance Request Form identifies the reason of the request (i.e., LLRT of valve XX-XXX), whether a fluid boundary exists, and whether the system needs to be drained.

In these cases, the ISI group has not specified how the system should be drained. Not specifying how Operations will drain the affected system allows Operations personnel to review the work on the affected system and initiate one clearance to establish an appropriate boundary. This is a good ALARA practice. By not providing Operations with specific directions for draining a system for the performance of a LLRT, some tests may have static water head against the tested valve if the system is drained by Operations personnel not familiar with Appendix J requirements.

This inadequacy in the test procedures is believed to have had no effect on the previous Appendix J Type 'C' local leak rate test results. If static water is present on the test valve after draining, this water will be at a minimum because of the orientation of the piping and the location of the vent. Thus, head pressure is minimum, and the water should not mask leakage at the required test pressure (49 psig). In addition, the ISI group has provided the necessary communication with the Operations personnel hanging the draining clearance to ensure they understand how the system should be drained for local leak rate testing.

### III. Corrective Action Which Have Been Taken

Until the appropriate test procedures are permanently revised, a temporary revision will be initiated by the ISI group, as required, to provide the necessary guidance and documentation (i.e., how to drain the system, elevate the test pressure, etc.) to ensure that any water which may exist on the back side of the valve will not mask leakage. This temporary revision will become a QA record and comply with Technical Specification 6.10.1.

### IV. Corrective Action to Prevent Recurrence and Date of Full Compliance

The ISI group will revise the appropriate test procedures to provide the necessary guidance and documentation (i.e., how to drain the system, elevate the test pressure, etc.) to ensure that any water which may exist on the back side of the valve will not mask leakage and to ensure compliance with Technical Specification 6.10.1. The permanent revision of appropriate test procedures will be completed by the start of the Unit 1 Refueling Outage, currently scheduled to start June 1990.



## VIOLATION B

10CFR50, Appendix B, Criterion XIV and the licensee's accepted QA Program (FSAR) Section 17.2.14) collectively require that measures shall be established for indicating the operating status of structures, systems, and components of the nuclear power plant such as by tagging valves and switches, to prevent inadvertent operation. Additionally, the licensee's Administrative Instruction AI-58, Equipment Clearance Procedure, Revision 29, provides controls for plant systems and equipment under clearance and states the duties and responsibilities of various plant personnel for controlling clearances (valve tags).

Contrary to the above, an unauthorized licensee employee was observed operating a service air valve that was under an active clearance (tagged closed).

This is a Severity Level V Violation (Supplement I), applicable to Unit 2 only.

## RESPONSE

### I. Admission or Denial of the Alleged Violation

Carolina Power & Light acknowledges the violation occurred as stated.

### II. Reason for the Violation

While setting up test equipment, to supply Service Air (SA) pressure from SA isolation valve 2-SA-V351 to perform a local leak rate test (LLRT), the involved LLRT technician, who is a member of the In-Service Inspection (ISI) Group, failed to visually determine that the valve was under equipment clearance in the closed position. The technician stated that the equipment clearance tag on the valve was partially obscured from the view by a coiled electrical cord wrapped around the valve. When the technician opened the valve approximately one turn in order to purge the test equipment, the electrical cord partially fell away from the valve handwheel to reveal the existence of the clearance tag at which time the technician immediately closed the valve.

CP&L's assessment of the circumstances of this occurrence determined that the subject clearance tag was sufficiently visible for visual detection by the technician prior to operation of the valve. The tag was visible from several feet away by the Resident NRC inspector who witnessed the event. As such it is concluded the event was the result of isolated personnel error due to inadequate attention to detail by the involved technician. The basis of this conclusion is supported by an HPES causal analysis of the event.

### III. Corrective Steps Which Have Been Taken

As a result of this occurrence, appropriate administrative disciplinary action was taken concerning the involved technician. On September 13 and 14, 1989, members of the ISI Group received specific counseling concerning this event that included a discussion of the following:

1. The details of the subject equipment clearance violation.
2. The importance of procedural compliance and attention to detail.
3. Ensuring adequate time is devoted to accomplish the job properly.
4. Steps which should be immediately taken should such an event reoccur.

In addition, the circumstances of this occurrence were covered during Real-Time Training for members of the plant Technical Support Group, completed on November 2, 1989.

### IV. Corrective Steps Which Will be Taken and When Full Compliance will be Achieved

No further action is planned regarding this occurrence as it is felt full compliance has been achieved.