UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

Report Nos. 50-324/82-38 and 50-325/82-38

Licensee: Carolina Power and Light Company
411 Fayetteville Street
Raleigh, NC 27602

Facility Name: Brunswick

Docket Nos. 50-324 and 50-325

License Nos. DPR-62 and DPR-71

Inspection at Brunswick site near Southport, North Carolina

Inspectors: H. L. Whitener — 9-30-82 (Date Signed)

H. E. P. Krug — 27 SEP 82 (Date Signed)

Approved by: F. Jape, Section Chief — 9/30/82 (Date Signed)
Engineering Inspection Branch
Division of Engineering and Technical Programs

SUMMARY

Inspection on September 7-10, 1982

Areas Inspected

This special, announced inspection involved 56 inspector-hours on site in the areas of followup inspection of NRC and licensee identified tasks to be completed prior to startup of Unit 1 or Unit 2.

Results

Of the areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. L. Harness, Manager, Plant Operations
*E. A. Bishop, Manager, Technical Support
J. Boone, Engineering Supervisor
*B. Hinckle, Project Engineer
D. Warren, Plant Engineer
*S. M. Hutton, ISI Specialist
R. Hoffman, Plant Engineer
W. Martin, Principal Engineer, Operations
M. Foerester, Plant Engineer
*R. Poulk, Regulatory Specialist

NRC Resident Inspector

*D. Myers, Senior Resident Inspector
*L. Garner, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 10, 1982, with those persons indicated in paragraph 1 above. The licensee acknowledged the findings and agreed to evaluate the potential for containment leakage resulting from testing certain valves in a direction opposite the accident pressure.

a. Unresolved Item 324/82-38-01 and 325/82-38-01, Reverse Direction Testing of Isolation Valves Located Outside Containment, paragraph 5.a.(4).

b. Inspector Identified Item 324/82-38-02 and 325/82-38-02, Prior NRC Approval of Modifications Which Require Technical Specification Changes, paragraph 5.b.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. A new unresolved item identified during this inspection is discussed in paragraph 5.a.(4).

5. Inspection of Brunswick Pre-Startup Activities

As a result of problems found in control and performance of surveillance testing at Brunswick, Region II issued Confirmation of Action letters to Carolina Power and Light Company on July 2 and July 20, 1982, requiring, in part, an extensive review of surveillance test requirements, procedures and associated management controls. As a result of NRC findings and the licensee's reviews, a number of items were identified for correction prior to startup of either unit. The inspectors reviewed the status of pre-startup action items for technical adequacy of procedure, test performance, test results and administrative controls as discussed below.

a. Items Related To Appendix J to 10 CFR 50

(1) Establish document control and data retention system for local leak rate testing.

Revision 15 to the local leak rate test procedure, PT20.3, assigns responsibility for conduct, controls and documentation of testing to the test coordinator. A record of tests performed, test results, valve repairs, retesting and leakage summary results are maintained in a test binder at the test coordinator's desk and in the document control room. The inspector determined that the controls are being implemented.

(2) Revise containment penetration Type C testing program.

Major revisions to the valve testing program have been implemented by revision 15 to PT20.3. The basis for formulating the revised test program is an extensive study performed on the plant systems and included a field inspection to verify system drawings, review of these drawings to identify all isolation valves and review of these valves against criteria of Appendix A to 10 CFR 50, Appendix J to 10 CFR 50 and the FSAR to identify test requirements. The inspector reviewed portions of a draft report on the study performed and concluded that a systematic evaluation had been performed which should provide an adequate Type C test program. A number of valves have been added to the test program. Specific review of the valves in the Type C test program is performed on a sampling basis during the routine NRC inspection program.

(3) Determine that Type C testing has been performed on the valves added tc the program.

The inspectors selected a sample of valves added to the program for each unit and tracked the valves through the test program to verify that:

(a) The valve test is required by the procedure.
(b) The test was performed.
(c) Test results are documented.
(d) Test results are included in the leakage summary.
(e) The summation of leakage results is within the Technical Specification requirements.

From this review the inspectors concluded that the licensee has incorporated the valve additions into the test program.

(4) Determine that plant modifications have been made to enable the testing of isolation valves.

The inspectors verified that a number of plant modifications had been performed to permit testing of valves not previously tested in the Type C program. Data was on file for installation and testing of these modifications. The direction of valve testing was not examined as part of this review but was addressed as a plant generic issue for all isolation valves.

The issue of testing valves in the reverse direction from that which would occur during the accident was identified during an earlier NRC inspection. Appendix J permits testing in the reverse direction when it is equivalent or more conservative than testing in the accident direction. The licensee had generated a list of the valves tested in the reverse direction but had not completed the evaluation of valve design and packing configuration. The licensee agreed to include the completion of this review in the pre-startup action item list.

The inspector identified this issue as an Unresolved Item 50-324/82-38-01 and 50-325/82-38-01 as follows:

(a) Determine if tests performed on valves in the reverse direction are conservative.

(b) If non-conservative tests are identified as a result of plant design, evaluate the effect on safe operation of the plant.

(5) Complete isolation valve logic/group study and recommendation for Technical Specification listed valves.

The inspector determined that the licensee's study of isolation valves included a logic review. Technical Specification changes are being prepared.

(6) Revise PT and perform containment inspection per Technical Specification 4.6.1.1.a.1.

The licensee has written PT 2.2.4 and 2.2.4.a for inspection of containment valves. In that completed copies could not be obtained until the end of the inspection, technical adequacy of PT's will be reviewed at the Region II office. Resident inspectors will verify performance of the tests.

(7) Determine if leak rate requirements of Technical Specification 4.6.1.2.a, b, c and d have been met.

Technical Specification 4.6.1.2.a, b and c pertain to the integrated leak rate test. These items were verified in a previous inspection. Technical Specification 4.6.1.2.d pertains to Type B and Type C leak rate testing. The inspectors tracked a number of valves through the local leak rate test program and consider tnat the licensee has established and implemented a program which meets the Technical Specification requirement.

(8) Address concerns relative to containment isolation reliability identified by leak rate test consultant.

The inspector discussed this matter with licensee engineers and found that the concerns are being addressed. Specifically the inspector reviewed the corrective action taken to upgrade the Containment Air Control System valve reliability. Actions taken included improving maintenance instructions (MI-16-519) to resolve problems related to valve seats and actuators, cleaning rust out of the system, and changing out corroded valve disks. The effectiveness of the licensee's actions will be assessed during the NRC routine inspection program.

b. Changes to Pipe Supports and Restraints

During a previous NRC inspection, it was found that the licensee had made modifications, both deletions and additions, to installed snubbers without prior approval of Technical Specification changes. The licensee stated that verbal agreement was obtained from NRR to permit proceeding with field changes during the refueling outage, providing a Technical Specification change was submitted prior to startup. The inspector determined that a Technical Specification change request to update Table 3.7.5-1 had been submitted. This resolves the issue for updating the Technical Specification for changes made during the current outage.

However, it was not clear that the licensee would obtain prior NRC approval for modifications requiring Technical Specification changes for future snubber modifications as required by 10 CFR 50.59.