



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

Report Nos.: 50-324/84-29 and 50-325/84-29

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

Docket Nos.: 50-325 and 50-324

License Nos.: DPR-62 and DPR-71

Facility Name: Brunswick 1 and 2

Inspection Conducted: September 5-7, 1984

Inspector:

J. J. Kenahan

9/17/84
Date Signed

Approved by:

F. Jape, Section Chief
Engineering Branch
Division of Reactor Safety

9/17/84
Date Signed

SUMMARY

Areas Inspected

This routine unannounced inspection involved 21 inspector-hours on site in the areas of the snubber surveillance program, flood protection surveillance procedures, results of surveillance tests performed on Unit 2 excess flow check valves, and followup of previously identified inspector followup items.

Results

No violations or deviations were identified.

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REPORT DETAILS

1. Licensee Employees Contacted

- M. Cote, Mechanical Engineer
- *T. E. Cribb, Regulatory Compliance Specialist
- *K. E. Enzor, Director, Regulatory Compliance
- *R. Kitchen, Maintenance Supervisor, Unit 2
- *J. O'Sullivan, Maintenance Manager
- C. Schacher, I&C Maintenance Engineer
- D. Thrift, Mechanical Maintenance Foreman
- *W. M. Tucker, Assistant to General Manager

Other licensee employees contacted included four mechanics and two I&C technicians.

NRC Resident Inspectors

- *L. Garner
- *T. E. Hicks
- *D. O. Myers

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 7, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings without significant comment.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort (92706)

- a. The inspector examined procedures which implement the requirements of Technical Specifications (TS) pertaining to flood protection. The TS requirements and implementing procedures reviewed by the inspector are listed in the table below.

TABLE

<u>Technical Specification Number</u>	<u>Requirement</u>	<u>Implementing Procedure Number</u>
4.7.3.b	Channel functional test of high water level instrumentation	PT 20.1P and PT 20.1PC
4.7.3.c	Calibration of high water level water level instrumentation	PT 20.1PC

- b. The inspector examined the results of surveillance testing performed on September 3 and 4, 1984, to verify the operability of the four excess flow check valves installed on Unit 2 reactor water level instrumentation lines. The surveillance testing was performed in accordance with procedure number PT-02.1.25. While performing the surveillance test, a position indicator switch failed when one of the check valves closed. The results of the surveillance test were satisfactory for the other three check valves. The surveillance test was repeated after the switch had been replaced to verify the new switch operated satisfactorily. The inspector reviewed Trouble Ticket 2E-84-5040 which documented this problem and its resolution. Since the valve closed and the problem involved the indicator switch only, the check valve was considered operable.

Acceptance criteria utilized by the inspector in review of these surveillance test results appears in TS 4.6.3.4.

- c. The inspector reviewed Plant Modification No. PM 82-072, Unit 2 Torus Integrity Upgrading. This modification involved installation of new pipe supports, upgrading of supports, e.g., increasing snubber sizes, relocation of pipe supports, and deletion of some supports or piping within the drywell to comply with requirements of NUREG-0661.

Within the areas inspection, no violation or deviations were identified.

6. Snubber Surveillance Programs, Units 1 and 2 (61729)

The inspector examined procedures and quality records related to the snubber surveillance program and inspected selected snubbers on safety-related piping systems in the Unit 2 drywell. Acceptance criteria utilized by the inspector are specified in TS 3/4.7.5.

a. Review of Snubber Surveillance Procedures

The inspector examined the following procedures which control snubber surveillance activities:

- (1) Procedure number PT-19.6.0, Visual Inspection of Snubbers on Safety-Related Systems
- (2) Procedure number PT-19.6.1, Safety-Related Snubber Functional Testing
- (3) Maintenance Instruction MI-16-538, Bergen-Patterson Hydraulic Shock and Sway Arrestors
- (4) Maintenance Instruction MI-16-559, ITT Grinnell Pipe Supports

b. Inspection of Snubbers

The inspector performed a visual inspection of the Unit 2 snubbers listed below and verified snubbers were not damaged, that attachment to the supporting structure and piping was secure, that fluid levels in the reservoir were acceptable, that leakage of hydraulic fluid was not occurring, that the snubbers were the proper size indicated on pipe support drawings, and that pin to pin dimensions were as shown on the drawing, or within installation tolerance.

- (1) Snubber number 2B21-3SS-233 on the reactor feedwater system
- (2) Snubber numbers 2B21-11SS-220, 225*, 341* and 343* on the steam relief discharge system
- (3) Snubber numbers 2B21-51SS-106 and 113 on the condensate drain system
- (4) Snubber numbers 2E41-4SS-49 and 200* on the high pressure coolant injection system
- (5) Snubber numbers 2B-32SS-B4 and B5 on the "B" reactor recirculation pump

*Indicates new snubber installed under plant modification PM 82-072

c. Review of Quality Records

The inspector reviewed results of visual inspections performed on Unit 1 accessible snubbers in August 1984 and in Unit 2 accessible and inaccessible snubbers in July and August 1984. The visual inspections were performed in accordance with PT-19.6.0. As a result of the visual inspections, one of the Unit 1 accessible snubbers was declared inoperable. The inspector also reviewed the results of functional tests performed in July - August 1984 on 88 Unit 2 snubbers. The number of snubbers tested is determined by the expression $35(1 + C/2)$ where C equals 3. All snubbers functionally tested met the acceptance criteria.

Within the areas inspected, no violation or deviation were identified.

7. Previously Identified Inspector Followup Items

- a. (Closed) IFI 324/325/78-25-05, Evaluate and Correct Conditions of Installed Supports and Restraints. The Region II inspector noted that snubber identification numbers were difficult to read, spherical ball joints were not adequately greased, and reservoir vent holes were painted over. During the review of procedure listed in paragraph 6 above, and the walk down inspection discussed in paragraph 6, the inspector concluded that these items have been corrected by the licensee. IFI 324/325/78-25-05 is closed.
- b. (Closed) IFI 324/325/81-04-01, Revise Functional Testing Program to Require Testing of All Categories of Snubber in Shutdown Mode. The licensee's functional testing procedure complied with the TS, however, the procedure did not require functional testing of a representative sample of accessible and inaccessible snubbers. To correct this issue, the licensee submitted a licensee amendment for the snubber TS as requested by the NRC Generic Letter to all power reactor licensees, dated November 20, 1980, Subject: Technical Specification Revision for Snubber Surveillance. This amendment was subsequently approved and issued by NRC. As discussed in paragraph 6 above, the inspector reviewed procedure number PT-19.6.1 which requires random selection of both accessible and inaccessible snubbers for functional testing. IFI 324/325/81-04-01 is closed.