

NUCLEAR REGULATORY COMMISSION

REGION II 101 MARIETTA STREET, N.W., SUITE 2900 ATLANTA, GEORGIA 30323

Report Nos.: 50-325/87-16 and 50-324/87-16

Licensee: Carolina Power and Light Company

P. O. Box 1551 Raleigh, NC 27602

Docket Nos.: 50-325 and 50-324

License Nos.: DPR-71 and DPR-62

Facility Name: Brunswick 1 and 2

Inspection Conducted: May 27-29, 1987

Inspector:
J. J. Lenahan

Approved by: Mark Gape

F. Jape, Section Chief

Engineering Branch Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection was conducted in the areas of IEB 80-11 and the snubber surveillance program.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

S. Bertz, Mechanical Engineer

*C. R. Dietz, General Manager - Brunswick Nuclear Plant

*K. E. Enzor, Director, Regulatory Compliance

*P. W. Howe, Vice President - Brunswick Nuclear Project

R. Kitchen, Maintenance Supervisor, Unit 2

W. Monroe, Principal Engineer

R. Nease, Civil - Structural Engineer

*J. O'Sullivan, Manager, Maintenance

*R. M. Poulk, Senior Specialist, Regulatory Compliance

D. Thrift, Mechanical Maintenance Foreman

*T. Wyllie, Manager, Engineering and Construction

Other licensee employees contacted were a construction engineer and two civil engineers.

NRC Resident Inspectors

*W. H. Ruland

L. W. Garner

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 29, 1987, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Snubber Surveillance Program, Units 1 and 2 (70370)

The inspector examined procedures and quality records related to the snubber surveillance program. Acceptance criteria utilized by the inspector are specified in Technical Specification (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, Inspection of Snubber Functional Testing
- (3) Procedure number PT-19.6.3, Inspection of Safety-Related Snubbers Which Have Experienced an Unusual Shock
- (4) Procedure number PT-19.6.4 Safety-Related Snubber Seal Life Monitoring
- b. Review of Snubber Surveillance Records

The inspector reviewed results of visual inspections performed on Unit 1 accessible and inaccessible snubbers in February 1987. The visual inspections were performed in accordance with PT-19.6.0. As a result of the visual inspections and subsequent functional tests, two inaccessible snubbers were declared inoperable. Since these snubbers were installed on two separate systems, the next visual inspection will be required to be performed in 12 months per TS 4.7.5.b.

The inspector also reviewed the results of functional tests performed on the 17 Unit 1 snubbers that were declared, when tested in accordance with procedure PT-19.6.1, to be inoperable as a result of function test failures. Five of the snubbers failed the drag test, that is, the frictional resistance to movement exceeded the licensee's acceptance criteria, one snubber exhibited excessive fluid loss during testing, while the remaining 11 failed due to low bleed rates after snubber activation. The licensee determined that the low bleed rates were the result of fluid contamination. As a result of the number of functional test failures, the licensee performed functional tests on 100 percent of the snubbers.

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

6. IE Bulletin 80-11, Masonry Wall Design (25537)

The licensee responded to IE Bulletin 80-11 in letters to NRC Region II, dated July 5, 1980, November 5, 1980, November 25, 1980, and December 9, 1980. These responses reported that on-site survey disclosed that

approximately 20 walls had not been constructed in accordance with original design requirements and that the design reanalysis identified some additional walls which required modifications to meet seismic design requirements. In letters dated July 29, 1983, and April 27, 1984, to the NRC Office of Nuclear Reactor Regulation (NRR), the licensee responded to requests for additional information concerning masonry wall design. These responses provided additional information regarding design criteria used by the licensee in the design re-evaluation of masonry walls and identified the walls that required modification to meet the seismic design requirements. The walls that had not been constructed in accordance with original design requirements were repaired by the licensee using the original construction drawing requirements. The licensee stated in their responses that repairs on the walls requiring upgrading would be scheduled as part of a five year modification plan for the Brunswick Plant. Final acceptance of the licensee's design re analysis of masonry walls and the schedule for implementation of required repairs is documented in a Safety Evaluation Report (SER), dated January 30, 1985.

The inspector reviewed the status of the licensee's masonry wall modification programs for walls which required upgrading to meet seismic design requirements. The status is summarized in the Table below.

Table
Status of Masonry Wall Modifications

Masonry Wall Numbers	Repairs Under Plant Mod. Number	Status of Repairs
DGB 4a DGB 2a, 2b, 2c & 2d CB 9a, 9b, 9c & 9d DGB 5a, 5b, 5c, 5d, 6a & 9 CB 6b, 6g, 8a, 8c & 8d	PM 83-235 PM 84-301 PM 84-302 PM 84-385 PM 84-384	Completed Completed Completed Repair Work Not Started Repair Work Not Started
Abbreviations D	GB: Diesel Generator B	Building

The inspector examined the complete documentation packages for PM 83-235, PM 84-301, and PM 84-302. These packages included design drawings, design changes, QC inspection records, and the licensee's safety evaluations. The inspector made a detailed review of QC inspection records including inspections of grouting, structural steel erection and bolting, expansion anchor installation, and welding. The inspector also walked down the walls and examined the completed repairs. These walkdowns included DGB Walls 2a, 2b, 2c, 2d and 4b, the east side of CB walls 9b and 9c and the west side of CB walls 9a and 9d. Based on the walkdowns and review of inspection records, the inspector concluded that he repairs were completed

CB: Control Building

in accordance with design requirements. The inspector also reviewed design drawing showing the proposed repairs to DGB walls 6a and 9e (PM-84-385) and CB Walls 6b, 6g, 8a, 8c and 8d (PM-84-384). IEB 80-11 will remain open pending completion of the repairs to the remaining walls.

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