



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

Report Nos.: 50-325/85-29 and 50-324/85-29

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: August 26 - 30, 1985

Inspectors: *J. J. Lenz* 9/19/85  
for K. W. VanDyke Date Signed  
*John B. Macdonald* 9/19/85  
J. B. Macdonald Date Signed

Accompanying Personnel: F. Jape

Approved by: *J. J. Lenz* 9/19/85  
for F. Jape Section Chief Date Signed  
Engineering Branch  
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 64 inspector-hours on site in the areas of reviewing and witnessing surveillance testing, witnessing containment isolation valve testing, followup of IE Bulletin 84-03, and a previously identified inspector followup item.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*M. Blinson, Inservice Inspection Specialist
- \*C. R. Dietz, General Manager
- \*E. R. Eckstein, Maintenance Manager (Acting)
- \*K. E. Enzor, Director, Regulatory Compliance
- \*B. E. Hinckley, Manager, Technical Support
- \*L. E. Jones, Director, QA/QC
- \*E. Noviello, Inservice Inspection Specialist
- \*D. E. Novotny, Senior Specialist, Regulatory Compliance
- \*L. W. Wheatley, Project Engineer

Other licensee employees contacted included engineers, technicians, operators, and office personnel.

#### NRC Resident Inspectors

- W. H. Ruland
- \*T. E. Hicks
- \*L. W. Garner

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 30, 1985, 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 inspectors during this inspection.

### 3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in this inspection.

### 4. Unresolved Items

Unresolved items were not identified during the inspection.

### 5. Independent Inspection Effort (73052)

The inspectors reviewed the following emergency diesel generator procedures to ensure compliance with Technical Specification 4.8.1.1.2:

<u>Procedure Number</u>	<u>Title</u>
MI-16-685	Diesel Generator Auxiliary Lube Oil Pump
MI-10-6A2	Diesel Generator Speed/Load Control Checkout
90-SP-79-033A	24 Hour Diesel Generator Load Test
3-OP-39	Nordberg Diesel Generator Operation

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

6. Surveillance Containment Leak Rate Testing (CILRT) Unit 1 (61720)

The inspectors witnessed Type C local leak rate testing on main steam and recirculation system valves as defined in 10 CFR 50 Appendix J. The leakage rate was determined by measuring the flow rate of dry air required to maintain test pressure.

The main steam isolation valves (MSIVs) in the 4 main steam lines were tested in accordance with procedure number PT-20.3a. Line 'D' did not meet the acceptance criteria of  $\leq 11.5$  scfh at 25 psig. Subsequent testing indicated that the outboard MSIV was the major contributor to the leakage observed. The licensee will perform maintenance on the valve and retest it to assure compliance with Appendix J criteria.

Recirculation system sample line valve numbers B32-F019 and B32-F020 were tested in accordance with procedure number PT-20.3.60. These valves met the specified acceptance criteria of  $\leq 3.0$  scfh.

To ensure the adequacy of the leak rate testing the following items were reviewed:

- a. Testing was conducted in accordance with approved procedures.
- b. Latest revision of the test procedure was available and in use by testing personnel.
- c. All test prerequisites were met.
- d. Required test equipment was calibrated and in service.
- e. All data were collected for final analysis.
- f. All test results indicated preliminary acceptance criteria were met or properly documented.

No violations or deviations were identified in the areas inspected.

7. Complex Surveillance (61701)

On August 27, 1985, the inspectors witnessed portions of the Control Rod Drive Hydraulic System Hydrostatic Test conducted in accordance with proce-

procedure number PT-14.1.1. Test activities were observed to verify the following:

- a. Testing was conducted in accordance with approved procedures and the latest revision of the test procedure was available and in use by personnel conducting the test.
- b. Pressure gauges of the required range and special test equipment as specified by the test procedures were calibrated and installed.
- c. Data required were collected by the proper personnel.
- d. Relief valves were installed were required and relief paths verified for system overpressure protection.
- e. Adequate coordination existed among the responsible organizations to conduct the test properly.

Nine valves were identified and documented to have packing leakage. No other leakage was identified. The test was successfully completed and restoration valve lineups commenced at approximately 1500 on August 27, 1985.

No violations or deviations were identified in the areas inspected.

8. Test Procedure Review, Reactor Pressure Vessel Hydrostatic test Unit 1 (73753)

Procedure Number PT-80.1, Reactor Pressure Vessel Hydrostatic Test provides the guidelines for the performance of the hydrostatic test to fulfill the requirements of the ASME Code, Section XI. This test was reviewed to verify acceptance criteria were established per Technical Specifications 4.0.5, 3.4.3.2a, 4.4.8, 3.4.6.1, and 4.4.6.1.1.

No violations or deviations were identified in the areas inspected.

9. Followup on IE Bulletins (92703)

(Closed) Bulletin 84-03, Refueling Water Cavity Seal. The licensee's November 26, 1985 response to IEB 84-03 provides an evaluation of the potential for the consequences of a refueling cavity water seal failure. The refueling cavity water seal in use at Brunswick is considered to be adequate. This finding is based primarily on the design differences between the Brunswick seal and the failed Haddam Neck seal. The BWR refueling cavity water seal consists of the refueling bellows seal, the drywell to reactor wall bellows seal, and the reactor wall seal bulkhead plate. This design does not contain any interference fit pneumatic seals, but relies on a welded bellows which requires no outside source of power to maintain seal integrity. Failure of the BWR seal would require structural failure of its welded components. This event is considered to be highly unlikely.

Bulletin 84-03 is closed.

10. Previously Identified Inspector Followup Item (IFI)

(Closed) Inspector Followup Item 324/80-24-02, 325/80-27-02, Load Shedding and Sequencing of Essential Loads onto the Emergency Diesel Generators. Review of the data from the diesel generator loading test performed on June 21 - 22, 1980, disclosed that the licensee had deleted the requirement to test Reactor Building Closed Cooling Water (RBCCW) pumps 2A, 2B and 2C. This was done because during the 1980 test RBCCW pumps 2A and 2C did not load shed (trip) properly during Section A of the test. Tripping these pumps under a loss of off-site power concurrent with an ECCS signal was part of the system design to ensure that only essential ESF loads would be applied to the emergency diesel generators. Therefore, it was necessary to include the requirement in the diesel generator load test. The licensee committed to revise the test procedures to test the RBCCW pump lock-out feature to ensure proper operation in a telephone conversation with NRC Region II on July 16, 1985. This commitment is documented in CP&L letter to NRC Region II, Serial Number BSEP/80-1520 dated September 19, 1980. Review of revised procedure MST-DG13R, section 6.2.2 and 6.2.3 of Acceptance Criteria states that RBCCW pumps 2A and 2C must trip and be verified not to restart. Inspector Followup Item 324/80-24-02, 325/80-27-02 is closed.