



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA ST., N.W., SUITE 3100  
 ATLANTA, GEORGIA 30303

Report Nos. 50-325/79-30, and 50-324/79-30

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

Facility Name: Brunswick, Units 1 and 2

Docket Nos. 50-325, and 50-324

License Nos. DPR-71 and DPR-62

Inspection at Brunswick Site near Southport, North Carolina

Inspector: J. E. Quits 9/18/79  
 Date Signed

Approved by: P. J. Kellogg 9/18/79  
 P. J. Kellogg, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on July 2-27, 1979

Areas Inspected

This routine inspection by the resident inspector involved 44 inspector-hours onsite in the areas of plant operations, radiation protection, physical protection, quality assurance program, organization and administration and maintenance.

Results

Of the six areas inspected, no apparent items of noncompliance or deviations were identified in five areas; one apparent item of noncompliance was found in one area (Infraction - Failure to have an adequate procedure to return a recirculation loop to service that resulted in Unit #1 trip).

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## DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*A. C. Tollison, Plant Manager
- \*J. M. Brown, Operations and Maintenance Superintendent
- \*C. Gibson, Acting Administrative and Technical Superintendent
- \*R. Porterfield, Project Engineer
- \*R. Poulk, NRC Coordinator

Other licensee employees contacted included technicians, operators, mechanics, security force members, and office personnel.

#### Other Organizations

Mayor's Office, Southport, North Carolina  
Police Chief, Southport, North Carolina  
Brunswick County Manager, Bolivia, North Carolina  
Brunswick County Sheriff's Office, Boliva, North Carolina  
Brunswick County Library, Public Document Room, Southport, North Carolina

\*Attended one or more exit interview.

### 2. Exit Interview

The inspection scope and findings were summarized on July 13, 20, and 27, 1979 with those persons indicated in Paragraph 1 above. The licensee acknowledged the item of noncompliance as discussed in Paragraph 12 of these details.

### 3. Licensee Action on Previous Inspection Findings

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. Plant Operations

The inspector conducted tours of accessible plant operating areas, reviewed operating documents and followed up on abnormal events as follows:

- a. Reviewed reactor operator's logs to insure they were properly filled out and signed.

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- b. Reviewed auxiliary operator's logs to insure they were properly filled out and signed.
- c. Reviewed shift supervisor's logs to insure that entries involving abnormal conditions were being properly entered in sufficient detail.
- d. Reviewed logs to insure that entries were being reviewed by management.
- e. Reviewed jumper log to insure bypasses were not in conflict with Technical Specifications.
- f. Reviewed status of limiting conditions for operations (LCO's) with operators.
- g. Inspected control boards for the status of safety systems.
- h. Reviewed with the operators the status of lighted annunciators.
- i. Inspected status of tags on control board to insure that position indication lights were not obscured.
- j. During tours of the control room observed that stations were adequately manned in conformance with the established requirements.
- k. Toured plant areas to insure that proper housekeeping and cleanliness was being maintained and that combustible materials were not present.
- l. Inspected interior of cabinets for fire hazards and the status of fire doors and fire fighting equipment.
- m. Observed one shift turnover to insure that the oncoming shift was properly briefed in accordance with approved procedures.
- n. Observed the collection and analysis of a reactor coolant sample.
- o. Followed up on unusual events and reportable occurrences.

#### 6. Radiation Protection

During this period of inspection the inspector made frequent tours of the plant to insure that radiological control requirements were being followed and that radioactive waste was being handled and stored properly.

#### 7. Physical Protection

The inspector made frequent tours of the protection physical barriers and inspected protected areas and security records as follows:

- a. Gates and doors to and in protected areas were closed and locked or attended.

- b. Barrier fences enclosing protected areas were in a condition to prevent entry into the area.
- c. Isolation zones were free of obstructions and unauthorized objects.
- d. Compensatory measures were implemented where equipment failure or impairment existed.
- e. Verified by actual witnessing, the licensee's security forces response to an intrusion alarm.
- f. Performed a sample review of security guards marksmanship qualification records.
- g. Witnessed security searches and badging at entrance to controlled area to insure that these were in accordance with security plan.

8. Quality Assurance Program

Changes to the licensee's quality assurance program was discussed with the quality assurance supervisor to verify that any changes were in accordance with his established program and applicable codes standards and regulatory guides. No changes to the program were reported for the period of this report.

9. Organization and Administration

The inspector discussed organizational changes with members of management to verify that:

- a. The licensee's onsite organizational structure is as described in the technical specification.
- b. Qualification levels of persons filling new positions are in conformance with applicable codes, standards and technical specifications.
- c. Organizational changes had been reported to the Nuclear Regulatory Commission.

The following organizational changes were reported during this reporting period:

- a. E. K. Enzor was moved from the position of Administrative Supervisor to Maintenance Supervisor (I&C).
- b. G. T. Milligan was moved from the position of Supervisor Maintenance (I&C) to Engineering Supervisor.
- c. W. L. Triplett was moved from the position of Engineering Supervisor to the position of Administrative Supervisor.

- d. C. Gibson temporarily replaces W. M. Tucker as Technical and Administrative Superintendent, while W. M. Tucker is undergoing senior reactor operator training.
- e. J. Davis and J. Demmette are temporarily assuming the duties of maintenance supervisor (mechanical) while V. Wagoner who regularly fills this position is undergoing senior reactor operator training.

10. Maintenance

The inspector witnessed the overhaul of a main service water pump to insure that:

- a. Administrative approvals were obtained and controls were established for performing the work.
- b. Maintenance was accomplished using an approved and technically adequate procedure.
- c. Testing was performed at the completion of the maintenance.
- d. Quality control records were available for the maintenance being performed.
- e. Maintenance was accomplished by technically qualified personnel.

11. Acceptance Criteria

The inspector used one or more of the following sources of acceptance criteria for evaluating the above areas inspected:

- a. Technical Specifications
- b. ANSI N45.2.3 (1971)
- c. ANSI N18.7 (1972)
- d. Regulatory Guides
- e. Quality Assurance Program
- f. Security Plan

12. Results

During the inspection of the areas discussed in this report the following discrepancies were identified and reviewed with the licensee. The one item of noncompliance was acknowledged by the licensee.

- a. During the inspection of the protective area barrier fence an unused camera tower was observed to be located within the minimum allowed distance from the outside of the fence within the switchyard. The licensee was questioned regarding the closeness of this tower to the barrier fence. He later reported that it would be removed.

- b. During the inspection of the protective area barrier fence several washouts, one with a clearance of approximately one foot, were observed under the fence. These findings were reported to the licensee and he had repairs made to close these openings.
- c. While observing the drawing of a reactor coolant sample for Unit No. 1, excessive coolant was observed on the floor of the sample station at the 50 foot level in the reactor building. This leakage was coming from a sample line to a conductivity cell which had been removed for repairs. This was brought to the attention of the licensee and was cited as a similar problem as water on the floor of the pump room. The licensee agreed to take action to reduce leakage in these areas and minimize the collection of water on the floors.
- d. While observing the analysis of reactor coolant for iodine, a review of the procedure in use, Chemistry Procedure 4085, revealed that reference was made to a Figure (4085-1) for determining the acceptability of the test results. A referral to this Figure showed that it had been deleted from the procedure. This discrepancy was brought to the attention of the licensee, and he immediately initiated a change to the procedure to have the correct acceptance criteria referenced.
- e. During an inspection of the reactor buildings loose gear such as pipe fitting, bolts, gas bottle caps, etc., were observed to be stored near the four way valves for the CRD hydraulic control units. This gear had the potential of damaging the open wiring to the valve solenoids. Compressed gas bottles were also found secured to unsupported safety instrument sensing line tubing. These conditions were brought to the attention of management who had the problems immediately corrected.
- f. During an inspection of the auxiliary operators log for Unit No. 2, the log for the 16-20 shift on July 9, 1979 was not filled out and signed. The log had not been reviewed and initiated by the shift supervisor. These discrepancies were discussed with management and they reported that the individuals responsible would be counseled on the importance of maintaining a complete and correct log.
- g. Lubricating oil leakage was found in pipe trenches and recesses for piping in the diesel building. Also oil drain lines from the engine bed plates were backed up and not allowing drainage. These conditions had existed from a previous inspection, during which they were identified to the licensee. Licensee management inspected these areas and agreed to immediately take corrective action to have these conditions corrected.
- h. It was noted that the use of yellow poly bags were still being used to contain non-radioactive waste. This was brought to the attention of the licensee during an earlier inspection. The licensee produced a memorandum to all plant personnel prohibiting the use of yellow poly bags, except for radioactive waste. The licensee reported that future purchase of yellow poly bags would be stamped with "For Radioactive Material Use Only".

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- i. Excessive quantities of low level radioactive waste was observed to be stored outside the diesel and auxiliary buildings. This waste was contained in 100 cubic feet metal burial containers. These containers were not rain water tight and rain water could leak onto the waste then to the ground through drains. This situation was discussed with the licensee who reported that an abnormal amount of waste had accumulated during the five month outage and plant modifications in progress. They were making every effort to have their vendor pick up the waste for transfer to burial. In the meantime the licensee had taped down the container covers to reduce the possibility of rain water leakage, and had stacked the containers to reduce the exposure to rainwater.
- j. The condition of hardware on fire doors and the markings on the doors continues to be a problem. Also the long periods of time some doors are maintained under LCO conditions is considered unacceptable. The licensee reported that this was due to the pulling of cabling and removing of piping for the fire protection system that required these doors to be opened. He expects these problems will be solved when current modifications are complete and a program for upgrading the condition of the doors can be initiated. The inspector will closely monitor the progress of work in this area.
- k. A review of the conditions associated with a reactor trip on July 18, 1979 when Unit No. 1 recirculation loop "B" was being returned to service, revealed that an apparent too fast opening of the pump discharge valve resulted in a power increase that caused the reactor to trip on "upscale" APRM. The instructions and precautions in operating procedure OP-2, were apparently not sufficiently conservative to limit the power transient and thus preclude reactor trip. ANSI N18.7 (1972), Section 5.3 states, "Limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal band should be specified". These requirements have been implemented by the licensee in the "Procedures Preparation Manual" Section 3. As a result of his actions, the licensee was in noncompliance for failure to have an adequate procedure to limit the power transient. This is an infraction.

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