



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

Report No.: 50-400/84-29

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

Docket No.: 50-400

License No.: CPPR-158

Facility Name: Harris Unit 1

Inspection Dates: August 14-17, 1984

Inspection at Harris site near Raleigh, North Carolina

Inspector: *T. E. Conlon* *for* 8/29/84  
 M. D. Hunt Date Signed

Approved by: *T. E. Conlon* 8/29/84  
 T. E. Conlon, Section Chief Date Signed  
 Engineering Branch  
 Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection involved 24 inspector-hours on site in the areas of employee concerns, nonconforming reports, and general housekeeping.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*R. M. Parsons, Project General Manager
- \*A. Cockerill, Resident Electrical Engineer
- \*N. J. Chiangi, Manager QA/QC Harris Site
- \*G. L. Forehand, Director QA/QC
- \*K. V. Hate', Principal QA Engineer
- \*B. Langlois, CI Units Supervisor
- \*G. L. Ketchum, Electrical CI Supervision

#### NRC Resident Inspectors

- \*G. F. Maxwell
- \*R. Prevatte

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 17, 1984, with those persons indicated in paragraph 1 above. The following unresolved item\* was discussed: Review the duties of the Construction Inspection Unit and the Electrical Construction Engineering Group (Paragraph 5). The licensee acknowledged the inspection findings and took no exceptions.

### 3. Licensee Action on Previous Inspection Findings

Not Inspected.

### 4. Employee Concerns

The inspector reviewed 78 nonconforming reports (NCRs) related to electrical cable installation. The review was performed as the result of a concern expressed by an employee regarding the overtensioning of cables during pulling operation. The concern was that the tension values on cable pull cards appeared high, and when questioned, were then changed or another set of cards were issued for the pulling operation. Some of these changes were made after the pull was completed. Additionally, the method for determining the bend radius of concrete imbedded conduits was questioned.

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\*An unresolved item is a matter about which more information is required to determine whether it is acceptable or may involve a violation or deviation.

The inspector interviewed eight Construction Inspection Unit (CI) electrical inspectors who had or were inspecting cable pulls. All those interviewed felt that the overtensioning problems have now been resolved. The corrective actions taken ensure that tension values are more accurately calculated, questionable cable pulling values evaluated, questionable cables problem are resolved which may include cable removal or Hi-potting, and more accurate means are used to determine conduit bend radius. These actions have resulted in an improved cable pulling program. All those interviewed felt that they could issue NCRs when necessary, and that satisfactory NCR resolutions were being generated. Some had used the "kick back" system occasionally when NCR resolutions did not seem satisfactory or additional clarification was required. Indications are that the "kick back" system is not used often but is effective when used. All those interviewed stated that they could not identify any safety-related cables that had been overtensioned that had not been evaluated and/or corrected. There were no further concerns regarding overtensioned cables and those interviewed felt that the concern had been fully addressed and resolved.

5. Independent Inspection Effort (92706)

During discussions with the CI personnel, the inspector became aware of a minor problem regarding the inspection criteria for work package (WP) 137. This WP involved extensive modifications to two Engineered Safeguards Feature (ESF) panels. The modification involved Field Change Requests (FCR) Nos. E-329 and E-330. Included as part of these FCRs were approximately 55 vendor drawings which were revised.

The Engineering Unit had developed a step-by-step procedure containing over 200 steps for the first ESF sequencing panel modification. The CI unit planned to use these steps as the QC check points for inspection and acceptance. However, when the plans and drawings for the second ESF sequencing panel were issued by the Engineering Unit, there were only four steps prepared to go along with the same quantity of drawings that were required for the first panel. The CI Unit was in the process of developing a step-by-step inspection acceptance plan for the inspections on this modification. The inspector was unable to determine which unit (Engineering or Construction Inspection) was responsible for developing the QC acceptance criteria at this time. Further examination of this item will be performed. This is identified as an Unresolved Item 50-400/84-29-01, Review the Duties of the Construction Inspection Unit and the Electrical Engineering Group.

The inspector conducted a walk through inspection to review the storage of partial cable pulls, the protection of switch gear, and associated electrical equipment. It was noted that most of the equipment was covered, wrapped, or protected. A few cabinets were found with the doors open but the inspector was advised that work was being performed in these cabinets. The main halls and stairwells were clear of construction debris but the various

remote rooms and area should be checked periodically to ensure that construction debris does not accumulate.

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