



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

Report No.: 50-400/84-46

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

Docket No.: 50-400

License No.: CPPR-158

Facility Name: Harris 1

Inspection Conducted: December 11-14, 1984

Inspector: M. D. Hunt 1/3/85
M. D. Hunt Date Signed

Approved by: T. E. Conlon 1/4/85
T. E. Conlon, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 27 inspector-hours on site in the areas of conduit/raceway supports and construction deficiency reports.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. M. Parsons, Project Manager, Completion Assurance
- *F. J. Wagner, Engineering General Manager
- *N. J. Chiangi, Manager QA/QC Harris Project
- *P. H. Cook, Jr., Central Control Supervisor
 - G. L. Forehand, Director QA/QC
- *K. V. Hate, Principal QA Engineer
- *J. T. Peel, Project Engineer - Construction Inspection Raceway Unit Supervisor
- *R. Varner, Principal Engineer, Construction Inspection Electrical Unit Supervisor
- *M. D. Vernon, Superintendent QC
- *D. C. Whitehead, QA Supervisor
- *C. K. Wright, Regulatory Compliance Specialist

Other licensee employees contacted included twelve technicians, one security force member, and six office personnel.

Other Organization

G. F. Cole, Vice President, Daniel Construction

NRC Resident Inspector

*R. Prevatte

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 14, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the following inspection findings and took no exceptions:

- Unresolved Item 400/84-46-01, Review the Methods for Controlling Conduit Supports - paragraph 5.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 5.

5. Independent Inspection Effort (92706)

The inspector reviewed the inspection methods that have been used by the licensee to inspect the supports for raceways and conduits. The various past revisions of Procedure TP-42, Installation of Safety-Related or Seismically Installed Electrical Raceways and Components, were reviewed to determine the progression and improvements that had been made in the inspection program. The inspection program is now structured such that engineered (AE designed) supports are inspected under Procedure TP-62, Inspection of the Installation at Seismic Class I and Seismically Designed Miscellaneous Electrical and Instrumentation Supports, while the standard (field) supports are inspected by the criterion denoted in TP-42. The field supports are detailed in the drawing Series CAR 2166-B-060, Miscellaneous Electrical Details and Notes. This drawing series is used for the necessary information and details when installing and inspecting field run conduits and seismic field supports.

It was noted during this inspection that the drawing Series CAR-2166-B-060 permits the use of field supports where engineered supports are not shown on drawings. The licensee engineering group issued a Field Change Request (FCR) No. AS 7076 which allows the field to substitute "B-060" supports for engineered supports as needed per the noted in drawing Series CAR-2166-B-060. The FCR states that no prior engineering approval for the substitution of field supports for engineered supports is required and that a permanent waiver (PW) will be issued after installation and inspection. The basis for this substitution is that the conduit is not detailed on the drawings and the field supports are designed to seismic specifications. It should be noted that the note in the CAR-2166-B-060 series states that the substitution can be made "where support locations are not shown." This FCR appears to permit substitution of field supports even though engineered supports are shown on drawings, prior to engineering approval, and the "as-built" revisions will be made by permanent waivers after QC inspections have accepted the installation of the conduit and supports. This concern was discussed with the licensee's representatives. They were advised that this would be identified as an Unresolved Item 400/84-46-01, Review the Methods for Controlling Conduit Supports.

No violations or deviations were identified.

6. Licensee Identified Items (LII) (10 CFR 50.55(e) and Part 21)

- a. (Closed) LII CDR 80-56, Sill Channel Sizing and Anchor Bolt Sizing For Seismically Designed 6.9 kv Nonclass 1E Switchgear. This item was reported on December 18, 1980, and a final report submitted to RII on

February 18, 1981. The incorrectly sized sill channels were found during a design review and placed on hold at the Harris site. The correct sill channels were shipped and installed. Exploratory chipping was performed and verified that the correctly sized sill channels were installed.

- b. (Closed) LII CDR-82-100, Solid State Protection System. This item was reported on September 9, 1982, and final report issued on December 4, 1984 and involved undetectable failures that could occur in the on-line test circuits. This item was reported by Westinghouse Electric Corporation to NRC as a Part 21. Westinghouse issued a Field Change Notice modifying the Solid State Protection System (SSPS) output relay test power to ensure detection of test circuit failures. The modification has been implemented in the field.
- c. (Closed) LII CDR 82-105, Auxiliary Relay Cabinets. This item was reported on November 1, 1982, and a final report submitted on September 21, 1983 and involved deficiencies in vendor welds. The vendor supplied revised drawings to correct critical welds and performed a seismic analysis (Shake test) which the licensee's evaluation judged acceptable to seismically qualify the panel. The reworked welds met the vendor's reanalysis requirements and inspection.