



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

Report No.: 50-400/84-24

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

Docket No.: 50-400

License No.: CPPR-158

Facility Name: Shearon Harris

Inspection Dates: July 20 - August 22, 1984

Inspection at Harris site near Raleigh, North Carolina.

Inspectors:	<u>AK Harden for</u>	<u>8/31/84</u>
	G. F. Maxwell	Date Signed
	<u>AK Harden for</u>	<u>8/31/84</u>
	R. L. Prevatte	Date Signed
Approved by:	<u>AK Harden for</u>	<u>8/31/84</u>
	Paul R. Bemis, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, unannounced inspection entailed 136 (resident) inspector-hours at the site in the areas of electrical, nonconformance control, welding, pipe hangers, storage, preoperational test program, operational staffing, and independent inspection.

Results: Of the eight areas inspected, no violations or deviations were identified in six areas; two violations were found in two areas (Violation - independence of inspection personnel; Violation - Failure to properly review and disposition NCR's.) No deviations were identified.

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REPORT DETAILS

1. Licensee Employees Contacted

- R. A. Watson, Vice-President Harris Nuclear Project
- *R. M. Parson, Project General Manager
- J. L. Willis, Plant General Manager
- *P. Foscolo, Assistant Project General Manager
- *N. J. Chiangi, Manager QA/QC Harris Plant
- L. I. Loflin, Manager Harris Plant Engineering Support
- B. Van Metre, Manager, Harris Plant Maintenance
- *M. Thompson, Jr., Manager Engineering
- *C. S. Hinnant, Manager Start-up
- J. M. Collins, Manager Operations
- *G. L. Forehand, Director QA/QC
- *M. D. Vernon, Superintendent QC
- D. A. McGaw, Superintendent QA
- *W. M. Langlois, CI Unit Supervisor
- *C. S. Bohanan, Director Regulatory Compliance

Other licensee employees contacted included 15 construction craftsmen, 8 technicians, 5 operators, 5 mechanics, 2 security force members, and 15 office personnel.

Other Organizations

- W. D. Goodman, Project Manager, Daniel Construction Company
- *G. F. Cole, Vice President, Daniel Construction Company

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 27, 1984, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

One unresolved items was identified during this inspection and is listed in section 5.f of this report.

5. Electrical (51053C, 51063C, 92706B)

- a. The inspector observed the installation activities associated with class IE cables with the following numbers: 12759K-SB, 10565A-SB, 11062B-SB, 10407F-SA, 10407G-SA, 12248B-SA, 12247B-SA, 10589J-SA and

10589H-SA. The observations related to cable pulling between switch-gear and various cabinets and termination activities. The following were evaluated during the observations:

- (1) The latest pull cards and procedures were in use;
- (2) The size and type cable were correct;
- (3) The cable identification (cable number and color codes) was correct;
- (4) The correct pulling tension was applied;
- (5) The correct bending radius was applied;
- (6) The cable routing was correct;
- (7) The cables were protected from damage;
- (8) Qualified electrical inspection personnel were monitoring the installation activities.

- b. During the observation of the above activities on class IE cable 12759K-SB, the inspector, on August 13, 1984, observed the electrical craft with Construction Inspection (CI) present, working on terminations inside of the computer termination MUX cabinet C10-1 H0051B-SB. Examination of the termination cards for the activity revealed that the termination card had been signed for work completion on June 26, 1984. The inspection reports, TP-38 exhibit 2, indicated that the inspection had been completed with open discrepancies noted on June 25, 1984. The inspection report also showed that the card and inspection report had been returned to the electrical craft and the craft had signed the inspection report indicating that the open items had been cleared on July 27, 1984. Upon questioning the CI inspector, it was revealed that it was common practice that if all open items were not cleared when the termination card was returned to CI for reinspection, than the inspector would obtain a craft electrician from the foreman and personally instruct him as to what work must be accomplished to clear all work discrepancies. Interviews of seven additional inspectors by the resident inspector indicates that this was common practice and recommended by inspection supervisors to reduce reinspection efforts. The use of inspectors to supervisors or direct the electrical craft in the performance of work activities instead of insuring that craft personnel are adequately trained and possess the knowledge and skills to perform quality work activities is contrary to the requirements of ANSI N45.2 Section 11, the Corporate Quality Assurance Manual Section 7, and 10 CFR 50 Appendix B, Criterion II and X. This is a violation, "Inadequate Training and Supervision of Electrical Craft Personnel" (400/84-24-01).

- c. The inspector accompanied CI electrical inspectors during the installation inspection of conduit 10565A-SB. The installation was rejected on initial inspection with numerous construction discrepancies. The inspection report and unsigned installation card were returned to the electrical craft for rework.
- d. The inspector, on August 17, 1984, observed portions of the Design Change modifications being performed under DCN 251-272 R/1 on Unit 2 PIC cabinets numbers 1, 2, and 6. The cabinets were being modified and will be installed in Unit 1 as PIC cabinets numbers 17, 18 and 19. The work was being performed by Westinghouse personnel with QA/QC coverage provided by CP&L.
- e. The inspector reviewed the design changes and applicable inspection requirements associated with the work being performed on the Engineering Safety Features (ESF) sequencer panels. This work is being performed under DCN E 329/330.
- f. The inspector held discussions with CP&L electrical discipline engineering personnel on closure of Field Change Requests (FCR's). During these discussions CP&L was unable to explain in detail how generic FCR's would be closed and what methods have been previously established to ensure that all inspection requirements had been completed prior to final closure of electrical FCR's. CP&L is presently reviewing requirements and applicable procedures for this area. This item will be an unresolved item, 400/84-24-03, "Closure of FCR's", until this data is provided.

Except as noted, no violations or deviations were identified in the areas inspected.

6. Nonconformance Control (92706B)

- a. The inspector, as part of the review of closed nonconformances, noted that NCR 84-1073 had received an inadequate review of the disposition and corrective action, and had been closed by QA surveillance without identification of all discrepancies. The disposition of the NCR had resulted in a nonconformance in that work had been accomplished without proper authorization (no rework card issued for termination rework and no Construction Work Request Authorization issued to perform work). In addition to the above, the NCR was closed without adequate preventive measures being taken and documented. After NRC identification of the above items to CP&L, NCR's 84-1281 and 84-1293 were issued to document the above discrepancies.

A review of other NCR's closed by the QA surveillance unit indicated that additional NCR's (NCR 84-1033 and DDR 2197) may have been closed without sufficient retracable documentation to justify the disposition and closure.

The above discrepancies, failures to properly review and disposition nonconformance reports, are contrary to the requirements of Criterion XV and XVI of 10CFR Appendix B, CP&L PSAR section 1.8.5.15 and 1.8.5.16, and CP&L Corporate QA Program section 15. This is a violation, "Failure to Properly Review and Disposition NCR's" 400/84-24-02.

Similar conditions were observed and documented in Region II report 400/83-22 as violation 400/83-22-02.

Except as noted, no violations or deviations were noted in the areas inspected.

7. Welding (55083C)

- a. The inspector examined the following welding activities on safety-related piping to determine whether applicable specifications and procedures were being met:
 - (1) Piping weld joint A1-190-1-RH-2-FW8 (observed in-process welding);
 - (2) Piping weld joint A1-236-1-CC-63-2-SW1 (observed in-process NDE examination).
- b. The above observations included examination to determine if:
 - (1) Welding identification and location were as specified;
 - (2) Welding procedure specification assignment was in accordance with applicable code requirements;
 - (3) Welding techniques and sequences were specified and adhered to;
 - (4) Alignment of parts was as specified;
 - (5) Welding equipment was in good working order;
 - (6) Welding personnel were qualified;
 - (7) Welding procedure specifications adhered to the requirements of ASME Section IX and AWS D.1.1 for hangers;
 - (8) Welding inspection personnel followed the requirements of the inspection procedures.

No violations or deviations were noted in the areas inspected.

8. Pipe Hangers (50090C, 92706B)

The inspector accompanied CI inspection personnel during the inspection of hangers ISI-H-476, RH-H-165 and CS-H-3741. The inspection included the following:

- a. Location and elevation;
- b. Material identification;
- c. Catalog parts;
- d. Strut/snubber assembly installation
- e. Orientation, geometry and clearance requirements;
- f. Installation and torquing of fasteners;
- g. Attachment;
- h. Physical integrity of hanger;
- i. Adherence to drawings and inspection procedure;
- j. Qualification of inspection personnel;
- k. Documentation of nonconforming conditions.

9. Storage (50073C, 92706B)

The inspector toured warehouse 1, 2 and 3; the operations warehouse, and various plant equipment storage areas. During the tours, the storage conditions of the equipment were evaluated to determine whether requirements are being met as follows:

- a. Piping and equipment, in general, were stored off the ground to prevent entry of dirt into them, or contamination from environmental conditions;
- b. The storage areas were identified sufficiently to provide identity and location as required by those who may be seeking the location of certain pipe spool pieces or equipment;
- c. The drainage, in general, was acceptable in areas where the piping spool pieces and tanks were stored.
- d. Access was adequate for placement or removal of pipe spool pieces and equipment;
- e. Warehouse equipment was stored in correct position;

- f. The required temperature and humidity controls were being met as required;
- g. Access to plant storage areas was being maintained;
- h. Equipment installed heaters were energized as required;
- i. Protective covers were in place.

During the observation, the following were referenced for requirements: PSAR section 1.8, and construction procedure AP-XII-05, AP-XII-07 and PGD-002.

No violations or deviation were identified in the areas inspected.

10. Preoperational Test Program (70302)

- a. During the week of August 13, 1984 the inspector observed portions of the preparation and completion of a hydrostatic test conducted on portions of the reactor makeup water piping. The piping tested is located at the pumps in Unit 1 tank building; references included RFT 2110.001, drawing CAR-2165-G299, figure 9.2.3-2 in the FSAR and procedure 2110-C-02.
- b. The inspector continued the evaluation of methods employed by construction and site maintenance personnel (operations). The area evaluated was associated with the replacement of a current transformer in the emergency diesel generator bus 1A-SA switchgear cubicle number 2. The inspector observed that the material, replacement transformer, was requisitioned from the warehouse in accordance with construction procedures. The replacement transformer was purchased from the manufacturer of the switchgear, requiring the same quality requirements as the original part.

No violations or deviations were identified in the areas inspected.

11. Operational Staffing (36301B)

- a. The inspector evaluated the operations staff assignment to determine whether the required key managers are assigned. A review of the FSAR section 13.1 amendment 13 shows that a Manager of Plant Operations supervises three of the seven management positions reporting to the Plant General Manager. The inspector discussed the staff manning and noted that the position of Manager of Plant Operations was vacated about one year ago and has not been refilled. The inspector inquired as to why the vacancy had not been filled and was informed by both the Plant General Manager and the site Vice-President that CP&L has plans to revise the applicable sections of the FSAR and eliminate the position of Manager of Plant Operations. The elimination of the position will require that the Plant General Manager supervise all of the seven managers who will then report directly to him. This item will be

identified as an Inspector Follow-up Item, "Operations Management Staffing," 400/84-24-04.

- b. The inspector evaluated the qualification requirements for the Plant General Manager and those managers assigned directly to him. A review of the qualification records shown in the FSAR table 13.1.3 indicated that the Plant General Manager has not attained the certifications required by the draft copy of ANS-3.1 September 1979 revision, section 4.2.1. This item will be identified as an Inspector Follow-up Item, "Certifications for Plant General Manager" 400/84-24-05.

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

12. Independent Inspection (71302)

- a. The inspector conducted tours of the various plant areas. During the tours, plant activities were evaluated to determine if they were being performed in accordance with applicable requirements and procedures. The activities which were evaluated included: hot work (welding, burning cutting, etc.); accessible fire protection equipment; house-keeping; equipment preservation (protected from climatic conditions); review of the clearance log; logs being kept by start-up personnel; and security of areas requiring access control.
- b. On August 15, 1984, the inspector observed in-process maintenance of the site emergency battery 1B-SB. The on-going monthly maintenance was conducted in accordance with a procedure identified as PM-E-0024.
- c. The inspector observed that the rotor for the main turbine generator was removed from its housing during the week of August 13, 1984. The rotor is being inspected and cleaned as required to assure its reliability prior to operation.
- d. On August 1, 1984, the inspector attended a meeting with CP&L site operations management. The meeting was held to allow CP&L to explain to the inspector the ongoing activities which CP&L has concerning relabeling plant equipment, instruments valves and major components.

No violations or deviations were identified in the areas inspected.

13. Other Activities (92706B)

- a. The senior resident inspector (construction) and the senior resident inspector (operations) attended the quarterly residents meeting in Region II from August 7 to August 10, 1984.
- b. The resident inspectors attended the CP&L (Harris) SALP board meeting in Region II on July 24, 1984.

- c. During the reporting period nine Region II inspectors conducted inspections at the Harris site. Their findings are documented in separate Region II inspection reports.
- d. The inspectors observed the ongoing activities associated with disassembly and inspection on the Transamerica Delaval (TDI) diesel engines.