



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

Report Nos.: 50-400/84-12

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

Docket No.: 50-400

License No.: CPPR-158

Facility Name: Harris

Inspection at Harris site near Raleigh, North Carolina

Inspector: N. Merriweather
N. Merriweather

5/10/84
Date Signed

Approved by: T. E. Conlon
T. E. Conlon, Section Chief
Engineering Branch
Division of Reactor Safety

5/10/84
Date Signed

SUMMARY

Inspection on April 16 - 20, 1984

Areas Inspected

This routine, unannounced inspection involved 32 inspector-hours on site in the areas of previously identified enforcement matters, IE Bulletins, Circulars, Information Notices, licensee identified items, and inspector followup items.

Results

One violation was identified - Failure to Retrieve QC Inspection Report for Work Performed on Motor Control Center 1A34-SA.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. M. Parson, Project General Manager
- *M. Thompson, Jr., Senior Resident Engineer
- *J. L. Willis, Plant General Manager
- *K. V. Hate, Principal QA Engineer
- *G., M. Simpson, Principal Construction Specialist
- *A. Cockerill, Resident Electrical Engineer
- *D. McGaw, Superintendent - QA
- *D. C. Whitehead, QA Supervisor - Surveillance
- *M. D. Vernon, Superintendent - QC

Other Organization

- *W. D. Goodman, Project Manager, Daniels Construction Company
- *B. E. Wells, Vice President, Daniels Construction Company

NRC Resident Inspectors

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

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 20, 1984, with those persons indicated in paragraph 1 above. The licensee was informed of the inspection findings listed below and there were no dissenting comments.

- Violation 400/84-12-01, Failure to Retrieve QC Inspection Report for Work Performed on Motor Control Center 1A34-SA, paragraph 7
- Unresolved Item 400/84-12-02, Acceptance Requirements for EDG Cable Replacement, paragraph 7

3. Licensee Action on Previous Enforcement Matters (92702)

(Closed) Violation 400/82-31-01, Failure to Follow Storage Procedures

The inspector reviewed the licensee's response dated October 27, 1982, and determined it to be acceptable. The inspector verified that the corrective action stated in the response had been accomplished by reviewing the "Warehouse Maintenance Logs" for all electrical penetration assemblies (EPAs) received at the site during calendar year 1982. The records indicate that the equipment (EPAs) received after September 13, 1982, was promptly

entered into the maintenance program. The inspector also reviewed the results of the walkdown inspection performed on the warehousing dated September 11, 1982, and the daily log sheets of equipment received at the site for April 19, 1984.

The inspector concluded that the licensee had determined the full extent of the subject violation, performed the necessary survey and followup actions to correct the condition, and developed the necessary corrective actions to preclude recurrence of similar circumstances. Therefore, this item is considered closed.

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 7.

5. IE Bulletins (92703)

(Closed) IE Bulletin 83-08, Electrical Circuit Breakers with an Undervoltage Trip Feature In use In Safety-Related Applications Other Than the Reactor Trip System. The inspector reviewed the licensee's response dated March 30, 1984, and found it to be acceptable. In this response, the licensee states that circuit breakers with undervoltage trip attachments are not used in safety-related systems at Shearon Harris site, other than the Westinghouse (Type DS-416) breakers used as reactor trip breakers. This item is closed.

6. IE Circulars (92703)

The following IE Circulars were reviewed to ensure their receipt, review by appropriate management, and that appropriate action was taken:

a. (Closed) IE Circular 79-23, Motor Starters and Contactors Failed to Operate

The inspector reviewed CP&L's evaluation NXPO-202-XXX-556A (dated February 5, 1980), Ebasco letter SH-560-258, and Gould Brown Boveri letter to CP&L dated November 27, 1979. The defective size 3 starters or contactors were refurbished at the site by Gould Brown Boveri. However, these items are not used in safety-related circuits.

b. (Open) IE Circular 80-01, Service Advice for General Electric Induction Disc Relays

The licensee informed the inspector that the applicability of this circular to Harris Site is still being investigated.

c. (Closed) IE Circular 79-20, Failure of GTE Sylvania Relay, Type PM Bulletin 7305, Catalog 5U12-11-AC with a 120V Coil

The inspector reviewed the licensee's evaluation dated April 19, 1984 and determined the subject equipment is not used at Harris site.

- d. (Closed) IE Circular 80-16, Operational Deficiencies in Rosemount Model 510 DU Trip Units and Model 1152 Pressure Transmitters

The inspector reviewed CP&L's evaluation dated April 19, 1984, and EBASCO's letters EB-C-11728 and EB-C-11661, and determined that the subject equipment is not used at Harris site.

- e. (Open) IE Circular 80-11, Emergency Diesel Generator Lube Oil Cooler Failures

The inspector reviewed CP&L's evaluation of IEC 80-11, file no. HXNR-X-X-XC dated March 23, 1982. The emergency diesel generators (EDG) lube oil coolers used at Harris site were manufactured by American Standard, Inc., and not the manufacturer specified in the circular (Young Radiator Company). The lube oil coolers on both EDGs were examined and are identified as follows:

EDG	LUBE OIL COOLERS
1A-SA	1. Part No. 5-049-19-264-001 Serial No. 79C20005-02-1
	2. Part No. 5-049-21-206-001 Serial No. 79C20005-01-1
1B-SB	1. Part No. 5-049-19-264-001 Serial No. 79C20005-02-2
	2. Part No. 5-049-21-206-001 Serial No. 79C20005-01-2

There are two lube oil coolers per EDG. These coolers use flanged connections instead of solder connections as mentioned in the circular. This circular remains open until CP&L establishes the water treatment program in accordance with the EDG manufacturer's recommendations and also by means of the engine maintenance history verify that the system corrosion inhibitor has been properly monitored and maintained at the recommended concentration. The licensee stated that this item will be incorporated on the Facility Automated Commitment Tracking System (FACTS) for followup and closeout.

7. Licensee Identified Items, 10 CFR 50.55(e) (92700) - Unit 1

- a. (Open) CDR 82-80, Pressure Sensing Line in the Starting Air System for Emergency Standby Diesel - Generator Sets, Purchase Order NY-435079, Item 80

The inspector reviewed CP&L's report dated April 18, 1983, in which the licensee reports that the projected submittal date of a final report is June 18, 1984. The fabrication of the orifice has been delayed due to the inability to find a qualified machine shop willing to bid on the purchase requisition.

- b. (Closed) CDR 83-119, Seismic Class 1 Electrical, HVAC, and Conduit Supports

The NRC inspector reviewed CP&L's final report dated June 1, 1983, and found it to be acceptable. The licensee has determined this deficiency to be non-reportable in that the weld defects identified would not have caused structural failure of affected components. The inspector reviewed the closed Deficiency and Disposition Report (DDR) No. 1327, Permanent Waiver Reports (PW) Nos. PW-AS-2618 and PW-AS-2624, and design calculations for PW-AS-2618, 2575, and 2573. A speed letter from HPES Civil Section stated that this concern has been determined to be not reportable per the requirements of 10 CFR 50.55(e). The inspector considers this item closed.

- c. (Closed) CDR83-122, Class 1E 480V Motor Control Center Protective Grommet Deficiency, P. O. NY-435143, Item 122

The inspector reviewed the licensee's final report dated January 31, 1984, and found it to be acceptable. In this report the licensee states that the deficiencies will be corrected using either of the following two methods on the 1½" and 1½" knockouts:

- (1) Install a conduit nipple with a locknut or,
- (2) Install a flexible embossed vinyl steel core trim around the sharp edges of the knockout

The inspector randomly selected five safety-related motor control centers (MCCs) out of 20 for examination to observe the completed installation of the conduit nipples and the vinyl steel core trim. The MCCs were identified as follows:

MCC 1A34-SA	MCC 1B31-SB
MCC 1A35-SA	MCC 4B33-SB
MCC 4A33-SA	

All installations appeared to be in accordance with work documents (FCR-E-1011, R2). The inspector reviewed the inspection records (TP-28, exhibit 6s) for MCCs which required repair work as identified in closed DDR No. 1391. With the exception of one QC inspection report (TP-28, exhibit 6) for MCC 1A34-SA, all inspection records were found in the QA records vault. The records were completed and signed in accordance with procedures. It appears that the inspection report for MCC-1A34-SA was lost and was never transmitted for QA review and storage in the vault. The licensee performed a reinspection on

April 18, 1984, and found the work acceptable. However, the ability to retrieve QA records is in violation of 10 CFR 50 Appendix B, Criterion XVII which requires QA records to be retrievable. The concern was identified to the licensee as violation 400/84-12-01, Failure to Retrieve QC Inspection Report for Work Performed on MCC 1A34-SA.

- d. (Open) CDR 83-154, Potentially Defective Engine Mounted Electrical Cables of the Emergency Diesel Generator

The inspector reviewed CP&L's final report dated February 17, 1984, and found it to be acceptable. In this response CP&L reports that the original cables were replaced with vendor supplied cables and accessories. This deficiency was identified by the licensee on DDR report No. 2209 for tracking, disposition, and closeout. The work was performed in accordance with Field Change Request No. FCR-E-1959(R1) work procedures WP-137 (job no. 110/111) and WP-210 (R8). The cables on both diesels have been replaced with cables supplied by the vendor. The work was supervised by the vendor representative (Transamerica Delaval, Inc.) and was documented as acceptable by CP&L QC on TP-28, exhibit 6. In reviewing the records of the work performed the inspector had the following concerns:

- (1) What acceptance criteria was used to accept the soldering of leads on the governor connector plugs?
- (2) Is the soldering material traceable to what was specified by FCR-E-1959 (R1)?
- (3) A conflict exists between work procedures and the equipment modification procedure (WP-137) in that crimping tools are not identified for traceability.

In reference to concern (1) the licensee indicated that the soldering was accepted by QC based upon the vendor representative being satisfied that a good joint was made. However, since the licensee does not have a procedure for accepting soldering, the vendor should have documented that the rework was in accordance with TDI acceptance criteria. These items will require further investigation by the licensee to determine if the rework is in accordance with TDI and CP&L's acceptance criteria. This item is identified as Unresolved Item 400/84-12-02, Acceptance Requirements for EDG Cable Replacement.

8. Inspector Followup Item (IFI) - (92701)

(Open) IFI 400/82-38-02, Cutting of Cable Tray Rungs. The licensee contracted with a national laboratory to conduct testing of different cable tray configurations similar to what was observed in the plant regarding cut cable tray rungs. The testing was completed and is documented in Seismic Qualification Report CCL A-561-83. The test report concluded that cable trays with the cut rungs are still adequate to meet the seismic requirements

at Harris site. The inspector is satisfied that the cable trays will meet the seismic requirements. However, the inspector still has a concern about how the licensee protects cables during installation from cut rungs which could possibly have sharp edges.