



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

Report Nos.: 50-413/84-84 and 50-414/84-37

Licensee: Duke Power Company  
 422 South Church Street  
 Charlotte, NC 28242

Docket Nos.: 50-413 and 50-414

License Nos.: NPF-24 and CPPR-117

Facility Name: Catawba 1 and 2

Inspection Conducted: August 21-24, 1984

Inspector: *T. E. Conlon* *fr* 9/5/84  
 N. Merriweather Date Signed

Approved by: *T. E. Conlon* 9/5/84  
 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 electrical equipment installations, QA records, nonconforming items, licensee identified items, and licensee action on previous enforcement matters.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Licensee Employees Contacted

- \*R. L. Dick, Vice President - Construction
- \*G. W. Grier, Corporate QA Manager
- \*E. M. Couch, Project Administrator
- \*L. R. Davison, Project QA Manager
- \*R. A. Cassel, Design Engineer
- \*R. W. Ballard, Construction Engineer - Hangers
- \*T. B. Bright, Engineering Manager
- \*T. A. Barrow, QA Engineer - Hangers
- \*R. M. Dulin, Senior Engineer
- \*R. A. Morgan, Senior QA Engineer
- \*J. W. Willis, Senior QA Engineer
- \*K. W. Schmidt, QA Engineer
- \*W. G. Rixon, Project Control
- \*D. P. Hensley, QA Technician
- \*T. H. Propst, Mechanical Technician
- J. Glenn, QA Engineer
- B. Sealy, QA Technician
- G. Hudson, QA Technician
- C. Z. Beardon, Mechanical QC Supervisor
- J. Waddell, Electrical QA Supervisor

NRC Resident Inspector

\*P. K. VanDoorn

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 24, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings.

### 3. Licensee Action on Previous Enforcement Matters

(Closed) Violation 413/84-13-01 and 414/84-09-01, Failure to Have Adequate Inspection Procedures for Protective Relaying Adjustment Activities. Duke Power Company's letter of response dated March 29, 1984, has been reviewed and determined to be acceptable. (This item was previously examined during inspection 84-71 in which the inspector determined that the only outstanding concern was to review the Transmission Department procedure for controlling QC sign-off of safety-related work and to verify that all personnel involved with Class IE work have been properly trained). In accordance with the licensee's commitments, the Transmission Department developed procedure No. AMP/0/00/0011/00/TA, Instruction of Work Crews in Procedure Sign-off. The

procedure was reviewed by QA and was issued on June 29, 1984. The purpose of the procedure is to identify acceptable sign-off of any safety-related work procedure conducted by Transmission Department personnel in, or related to, a nuclear station. The licensee has provided training on the procedure to all Transmission Department personnel involved in safety-related work. The records of training and the procedure have been reviewed and determined to be acceptable. The inspector concludes that the licensee has determined the full extent of the subject noncompliance, performed appropriate corrective action, and is now in full compliance.

4. Unresolved Items\*

Unresolved items were not identified during this inspection.

5. Electrical (Components and Systems) - Observation of Work and Review of Quality Records (51054, 51055 and 51056) - Unit 2

a. Field Inspection

The inspector selected the following safety-related electrical components for examination to verify that the as-built installations were in accordance with approved drawings, procedures, and specifications.

Class IE Electrical Equipment

125V Batteries/Racks Nos. 2EBA and 2EBC  
 125V Battery Chargers Nos. 2ECA and 2ECC  
 125V DC Distribution Panels Nos. 2EDA and 2EDC  
 125V DC Power Panel boards Nos. 2EPA and 2EPC  
 120VAC Inverters Nos. 2E1A and 2E1C  
 Centrifugal Charging Pump Motor No. 2B  
 Safety Injection Pump Motor No. 2A  
 Fuel Pool Cooling Pump Motor No. 2B  
 Safety Injection System Motor Operated Valves 2NI103A, 2NI332A, 2NI333B, and 2NI334B

The inspector verified that the above equipment had been properly inspected upon receipt at the site, was located and anchored in accordance with design drawings, nonconforming conditions were identified and dispositioned, protection against on-going construction activities was adequate, and finally, that QC inspections had been performed and documented by certified inspectors in accordance with procedures.

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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.

b. QA Records Review

The inspector examined the equipment installation inspection records and found them to be properly completed by QC and reviewed by QA in accordance with procedures. One minor typographical error was identified on the process control and inspection report for the fuel pool cooling pump motor installation. The QA inspector recorded the wrong tang to grip length on line E (form M10A) for torque wrench CA56. The correct length was 11½ inches and the inspector recorded 17½ inches. (The tang to grip value is used in a numerical calculation on line CC (form M10A) to determine the torque which should be applied using the torque wrench with an extension). However, in the actual calculation for torque the inspector used the correct value of 11½ inches. This resulted in the proper torque being applied in accordance with tolerances. It appears this error was minor and did not effect the acceptability of the as-built installation. Therefore, this discrepancy is not considered to be a violation.

The inspector also reviewed the receiving inspection reports and maintenance reports for the equipment identified above. The records were examined to determine if receiving inspections were properly performed and documented, equipment was approved for use by construction, proper storage was specified, and routine preventive maintenance was performed. All records examined were determined to be acceptable.

c. Nonconforming Items (51055)

The inspector selected the following equipment nonconforming items reports (NCIs) for examination to verify compliance with QA procedures:

NCIs

Q1A-7175	Q1A-18,565
Q1A-7683	Q1A-18,629
Q1A-2611	Q1A-18,688
Q1A-18,778	Q1A-18,707
Q1A-18,414	

The inspector found the records to be complete, legible, reviewed by QA personnel, and readily retrievable. The NCIs adequately described the deficiency and the corrective action appeared to be proper for the circumstance. The NCIs are being dispositioned and closed out in a timely manner with the appropriate review for reportability.

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

6. Licensee Identified Items, 10 CFR 50.55(e) (92700) - Units 1 and 2

- a. (Closed) CDR 414/82-27, Cracks in Cell Containers for Diesel Generator Batteries. The licensee's final report was submitted on May 1, 1984. The report has been reviewed and determined to be acceptable. The

inspector held discussions with responsible licensee representatives, reviewed supporting documenting, and observed the as-built installations to verify that the corrective actions identified in the report have been completed. The licensee identified this problem on nonconforming item report number 17936 for tracking, disposition, and close out. The licensee replaced the defective batteries and installed new batteries and racks. The battery racks were fabricated, installed, inspected, and accepted by QC on Form M-18A (R7) package No. 2DG 17. The battery installation was inspected and accepted by QC on M4.1B, Serial No. 4. The inspector reviewed the above documentation, examined the as-built replacement batteries against the as-built drawing, and reviewed procedures M18(R12) and M41B, serial 4(R8). The inspector verified that the correct type of batteries was installed as specified on the NCR (17936).

The defective batteries have been tagged as nonconforming and are temporarily stored in the warehouse pending design's disposition. The inspector considers this item closed.

- b. (Closed) CDR 413, 414/83-15, Potential Failure of Westinghouse Type SA-1 Differential Relays. The licensee's final report was submitted on June 13, 1984. The report has been reviewed and determined to be acceptable. The inspector held discussions with responsible licensee representatives, reviewed supporting documents, and observed representative samples of work to verify that the corrective actions identified in the report have been completed. The licensee identified this problem on NCI 17665 for tracking, disposition, and close out. The deficiency involved defective tantalum capacitors installed in SA-1 relays that were subject to electrolyte leakage. The licensee replaced the defective capacitors using shutdown requests 9522 (Unit 1) and 9505 (Unit 2) and retested the relays in accordance with NCI 17665. The work has been completed and the NCI was closed on August 10, 1984.

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