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

Report Nos.: 50-413/83-47 and 50-414/83-37

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

Docket Nos.: 50-413 and 50-414

License Nos.: CPPR-116 and CPPR-117

Facility Name: Catawba 1 and 2

Inspection at Catawba site near Rock Hill, South Carolina

Inspectors: M D Hunt — 1/17/84
M. D. Hunt — Date Signed

J R Harris — 1/17/84
J. R. Harris — Date Signed

Approved by: T E Conlon — 1-17-84
T. E. Conlon, Section Chief — Date Signed
Engineering Program Branch
Division of Engineering and Operational Programs

SUMMARY

Inspection on November 15-16, 1983 and December 13-16, 1983

Areas Inspected

This routine, unannounced inspection involved 52 inspector-hours on site in the areas of soils and concrete, cable tray installation, structural steel and licensee identified items.

Results

Of the four areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

J. C. Rogers, Construction Project Manager
S. Dressler, Construction Project Engineer
*L. E. Vincent, Construction Office Engineer
*W. G. Goodman, QA Inspection, Superintendent
*D. P. Hensley, QA Technician
*J. C. Snyder, Associate Field Engineer - Civil
*D. V. Ethington, Assistant QA Engineer
K. Jackson, Jr. Field Engineer
W. Allgood, Associate Engineer
J. Allgood, Associate Engineer
J. Glenn, Associate QA Engineer
J. Wadell, Supervising Technican Electrical
T. Coleman, Sr. Electrical Inspector

NRC Resident Inspectors

P. K. VanDoorn
P. Skinner

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 16, 1983, with those persons indicated in paragraph 1 above. The licensee representatives acknowledged the inspection findings without comment.

3. Licensee Action on Previous Enforcement Matters

(Open) Unresolved Item (413, 414/80-33-01) Identification of Concrete Honeycomb. Reinspection of Unit 1 concrete for honeycomb is scheduled for completion in January 1984. Reinspection of Unit 2 for concrete honeycomb is scheduled for completion in May 1984. This item remains open pending NRC review of the licensees concrete honeycomb reinspection program.

(Open) Violation 414/83-16-02, Improper Concrete Mix Placed. Final response to this item is scheduled for March 15, 1984. This item remains open pending NRC review of the licensees final response.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Verification of As-Builts (37051)

The inspectors selected an area in the doghouse located just outside the Unit 1 reactor building between column rows DD and HH and elevations 577' to 610'. This area contains large conduits, pull boxes, cable trays and junction boxes. All items examined appeared to be installed in accordance with the drawings CN-1901.01, Rev. 24, CN-1901.02, Rev. 15; and CN-1901.04, Rev. 8 which also lists the details for the raceway and conduit supports.

The inspectors examined various runs of cable tray in the area bounded by column AA to EE and 53 to 57 at elevation 554' in the auxilary building. This area contains the battery rooms and battery charging equipment. Within this area only the actual cable tray runs were examined. The installed cable trays were compared to the requirements of CN 1710-03.02-01 (Rev. 11), CN 1710-03.02-02 (Rev.8), CN 1710-03.02-03 (Rev. 8) which detailed the cable tray fittings to be used in the area. Of the trays inspected all met the drawing requirements.

The inspectors examined the raceway and conduit installation in the Unit 1 diesel generator room A & B. The details for the cable tray and conduits were listed on drawing CN-1899-01 (Rev. 32); CN 1899-02 (Rev. 19); CN 1899-03 (Rev. 9); and CN-1899-04 (Rev. 2). Unless there was a critical dimension given in a certain area of these rooms; no field run conduits and electray were shown on the listed drawings. However, Specification #1390-01-00-0048, Instructions for Mounting of Field Run Cable Support Systems lists the requirements for the installation of supports for field run conduits and electray. The separation requirements for Class 1 circuits and equipment are controlled by Installation Specification #1390-01-00-0018, Separation Requirements. Specification #1390-01-00-0056, Separation, establishes the separation required for NSSS preferred circuits.

In both diesel rooms field run raceways had been installed. Where these raceways had been added to cable tray supports evaluation had been or were in progress to insure that the seismic loading requirements were still acceptable.

In addition to the raceway installation the supports for the cable entering the engine control panel and generator control panel for each diesel unit were examined and found to be in accordance with the details of the listed drawings.

The following electrical raceway supports and structural steel assemblies were examined to determine if as-built conditions conformed to design and construction drawing and specifications.

a. Cable tray hangers HP 1-302, HP 1-303 and HP 1-304 in the electrical equipment layout electrical penetration room.

b. Cable tray structural steel support grid in the auxiliary building below elevation 574'.

c. Auxiliary building feedwater pump room platform at elevation 543.

d. Frame C and D pipe rupture restraint modifications.

e. Auxiliary building platform at elevation 554' and between columns 53 to 54 and AA to EE.

Acceptance criteria examined by the inspector for the above items appear in the following documents:

- Drawing CN-1220-40, Rev. 8, Auxiliary Building Miscellaneous Steel, Sheet 2, for Floors and Walls at Elevation 543'

- Drawing CN-1891-06, Rev. 16, Electrical Equipment Layout, Auxiliary Building Cable Tray Support System

- Drawing CN-1710-03.08-01, Rev. 15, Cable Tray Grid Hanger Layout, Auxiliary Building Below Elevation 574'

- Drawing CN-1898-01, Rev. 22, Electrical Equipment Layout, Electrical Penetration Room

- Drawing CN-1898-03, Rev. 6, Electrical Penetration and Switch Gear Rooms, Sections and Details

- Drawing CN 1903-01, Rev. 38, Electrical Equipment Layout, Auxiliary Building, Seismic Hanger Standards

- Drawing Number CN 1212-10, Rev. 8, Auxiliary Building Structural Steel Cable Tray Support Grid, Sections

- Drawing Number CN 1212-06, Rev. 5, Auxiliary Building Structural Steel Cable Tray Support Grid Below Elevation 574+0, Plan and Sections

- Drawing Number CN-1684-ND-003-B, Rev. 12, Reactor Containment Building Pipe Rupture Protection for Frames C&D

- Specification CP-115, Rev. 21, Installation of Concrete Expansion Anchors

- Specification CP-811, Supporting of Field Run Raceways

Examination of completed work and ongoing work in the above areas showed that the work is being done in accordance with drawings and specifications. Observations and discussions indicated that responsible inspection personnel were knowledgeable in drawing and specification requirements. Examination of work completed and discussions with responsible engineers indicated that modifications are ongoing in many of the structural steel assemblies and that most of the cable tray raceway assemblies have not had a final QC inspection. Review of as-built conditions for modifications on containment

steel structure assemblies and cable tray raceway assemblies will be examined in future NRC inspections.

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

6. Licensee Identified Item (LII) 10 CFR 50.55(e)

(Closed) LII 413, 414/81-07-02 (DPC No. 80-02) Solid State Protective Relays and Trip Devices

This item was reported to RII on January 31, 1980. A final response was submitted on June 17, 1981, and a supplement response submitted on September 28, 1981. The corrective action was to replace the SCRs in the relays and in safety applications. The work was completed per documentation dated July 21, 1983.

(Closed) LII 413, 414/83-10 Defective Heat Sink Adhesive On Loop Power Supply Printed Circuit Boards

This item was reported to RII on September 29, 1983. These circuit boards were identified as possibly defective as part of IE Information Notice 83-38. The inspector reviewed the actions taken as a result of Nonconforming Item (NCI) Report 16996 and supporting documentation which indicated 33 defective cards were identified for Unit 1 and 36 for Unit 2. All were returned to the vendor for retrofit, returned to the site, receipt inspected and reinstalled by Nuclear Production on Unit 1 and the vendor representative on Unit 2.