UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-413/82-26 and 50-414/82-24

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

Facility Name: Catawba

Docket Nos. 50-413 and 50-414

License Nos. CPPR-116 and CPPR-117

Inspection at Duke Power Company - Engineering Design Offices in Charlotte, NC

Inspector: T E Conlon for 10/20/82
J. J. Lenahan Date Signed

Approved by: T E Conlon 10/20/82
T. E. Conlon, Section Chief Date Signed
Engineering Inspection Branch
Division of Engineering and Technical Programs

SUMMARY

Inspection on October 6-8, 1982

Areas Inspected

This routine, unannounced inspection involved 18 inspector-hours at the corporate office in the areas of licensee action on previous inspection findings and IE Bulletin 79-02.

Results

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

REPORT DETAILS

1. Persons Contacted

Licensee Employees

D. R. Kulla, Supervisory Design Engineer, Civil-Environmental Division
R. McAuley, Design Engineer, Mechanical Division
I. E. Pierce, Principal Engineer, Civil-Environmental Division
P. L. Stiles, Supervisory Design Engineer, Mechanical Division
*C. L. Ray, Principal Engineer, Mechanical Division
D. L. Rehn, Principal Engineer, Civil-Environmental Division
D. L. Wand, Supervisory Design Engineer, Mechanical Division

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 8, 1982, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings.

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item (413/80-24-02 and 414/80-20-02), Curing Compound on Construction Joints. In a letter dated August 24, 1981, the licensee submitted an engineering evaluation concerning curing compounds on construction joints to NRC. This evaluation was reviewed by the NRR Structural Engineering Branch. In a memorandum dated October 22, 1981, to R. L. Tedesco, Assistant Director for Licensing, NRR Division of Licensing, from J. P. Knight, Assistant Director for Components and Structure Engineering, NRR Division of Engineering, Subject: Catawba Nuclear Station Unresolved Item 50-413/80-20-02. NRR Structural Engineering Branch concluded that the engineering evaluation submitted by the licensee was acceptable provided the methods to transfer direct shear at construction joints comply with ACI code requirements. The inspector examined a Duke civil environmental division memorandum dated October 17, 1980, Subject: ACI Code Requirements Shear Friction. This memo summarizes the effect that the use of curing compound on construction joints have on the coefficient of friction (u) value used by the licensee in their calculations for transfer of shear at construction joints. The memo concluded that the value of m = 1.0 used by the licensee in calculation of shear friction at construction joints would not be affected by the use of curing compound on the construction joints. The inspector discussed this memo with licensee engineers. These discussions disclosed that licensee engineers had reviewed their design calcu ation and verified that shear transfer at construction joints was analyzed in accordance with ACI code requirements. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin 79-02 (Revision 2) - Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts - Units 1 and 2

a. Summary of Licensee's Responses to IEB No. 79-02

The licensee has submitted three responses to IEB No. 79-02. These responses were dated as follows: July 5, 1979; August 15, 1979; and January 17, 1980. The licensee anticipates submitting the final response for Catawba Unit 1 for IEB No. 79-02 in early 1983.

b. The Inspector Reviewed The Following Procedures Which Address The Requirements For Design Of Base Plates:

(1) Duke QA Manual Section MPR-140, As-Built Verification of Duke Class A, B, and C Systems

(2) Attachment 5.3.4 to Design Specification Number CNS-1206.00-04-0001, Support/Restraint Base Plate and Anchor Bolt Design Procedure

(3) Duke letter number SRG-80-100, dated January 7, 1980, Subject: Catawba Nuclear Station Support/Restraint Design Criteria

(4) Teledyne Engineering Services Technical Report TR-3501, Summary Report - Generic Response to USNRC I&E Bulletin No. 79-02 Base Plate/Concrete Expansion Anchor Bolts, dated August 10, 1979.

c. Review of Base Plate Design Calculation

The inspector reviewed the calculations for the base plates on the supports listed below:

(1) Stress problem NDE - Safety Injection System (Calculation number CNC-1206.12-23-1005)

Support/Restraint Number

1-R-ND-0156
1-R-ND-0157
1-R-ND-0162
1-R-ND-0165
1-R-ND-0268
1-R-ND-0359

(2) Stress problem NDL - Containment Spray System (calculation number CNC-1206.12-23-1012)

Support/Restraint Number

1-R-ND-0420
1-R-ND-0107
1-R-ND-0106

The design calculations were completed in accordance with the procedures listed in paragraph 5.b.

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