UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-424/86-114 and 50-425/86-52

Licensee: Georgia Power Company
P. O. Box 4545
Atlanta, GA 30302

Docket Nos.: 50-424 and 50-425 License Nos.: CPPR-108 and CPPR-109

Facility Name: Vogtle 1 and 2

Inspection Conducted: November 3-7, 1986

Inspector: J. E. Gordon for 11-20-86
J. R. Harris Date Signed

Approved by: J. E. Gordon 11-20-86
T. E. Conlon, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection was in the areas of post-tensioning activities, a licensee identified item, and an employee concern in concrete.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*P. D. Rice, Vice President, Project Engineering
*E. D. Groover, QA Site Manager Construction
*G. A. McCarley, Project Compliance Coordination
*D. M. Fiquett, Unit 2 Construction Manager
*C. W. Hayes, Quality Assurance Manager
J. Stanley, Civil Engineer Construction
J. Hixon, Civil Engineer Construction

Other licensee employees contacted included construction craftsmen, engineers, and technicians.

Other Organization

*F. B. Marsh, Project Engineering Manager, Bechtel
*J. W. Carson, QA Supervisor, Bechtel

NRC Resident Inspectors

*J. Rogge, Senior Resident Inspector, Operations
*H. Livermore, Senior Resident Inspector, Construction

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 7, 1986, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during the inspection.

5. Employee Concern, Discussion, and Finding (92705)

a. Concern

During the summer of 1983, the alleger indicated that in an area between the control building and turbine building he used a rock bit to drill holes one foot apart in an area approximately 20 feet by 100 feet in the floor where Tower Crane 2 was located. He indicated that after he drilled the holes he used a "concrete buster" to remove the concrete. He indicated that while using the "concrete buster" it slipped and turned sideways hitting the north and south walls. He indicated that he was concerned that this may have done some damage to the walls.

b. Discussion

The inspector discussed the use of "concrete busters" and rock bits with responsible engineers and craftsmen and examined the area in the control building where Tower Crane 2 was located and examined concrete slabs and walls in the control building.

Discussions with engineers and craftsmen disclosed that "concrete busters" used at the site are Jack Hammers, Rock Splitters and Chipping Guns. The Jack Hammer and Rock Splitter are hand-held pneumatic machines used to remove concrete and the chipping gun is a smaller version of the Jack Hammer which is used to roughen concrete surfaces for repair of defects. Misuse of the Jack Hammer or Rock Splitter which resulted in the machine striking a wall or slab could cause some minor damage. However, to cause any significant damage the machine would have to be deliberately held against the wall or slab for a significant length of time. This would result in damage to the concrete such that the concrete would have to have been removed or repaired. Examination of walls and slabs in the area of Tower Crane 2 and other areas in the control building disclosed no evidence of any damage to the concrete.

c. Finding

The inspector was unable to find any evidence of damage to walls and slabs in the control building that could have resulted from improper use of a "concrete buster." If any damage did occur as a result of improper use of a "concrete buster," examination of the concrete indicated that it has either been replaced or repaired.

6. Containment (Post-Tensioning) - Review of Quality Assurance Implementing Procedures (47061) Unit 2

The inspector examined QA-QC controls for post-tension activities. Acceptance criteria appear in Sections 3.8 and 17 of the FSAR. The following QA-QC controlling documents were examined by the inspector.

- AX2AF04-100 Rev. 14, Field Instruction Manual for Installation of USL E5-55 Post-Tensioning System Within Nuclear Containment Structures
- Specification X2AF04 Rev. 3, Containment Post-Tensioning System
- CD-T-28, Surveillance of Post-Tensioning Quality Control Inspections
- Drawing 2X2AF04-37-7, Anchorage Details
- Drawing 2X2AF04-45-0, Basemat Layout
- Drawing 2X2AF04-53-6, Vertical Tendon Elevation Unit 2, Buttress Numbers 1 to 2
- Drawing 2X2AF04-54-5, Vertical Tendon Elevation - Unit 2, Buttress Numbers 2 to 3
- Drawing 2X2AF04-55-7, Vertical Tendon Elevation Unit 2, Buttress Numbers 3 to 1
- Drawing 2X2AF04-56-5, Horizontal Tendon Elevation - Unit 2, Buttress Numbers 1 to 2
- Drawing 2X2AF04-57-6, Horizontal Tendon Elevation Unit 2, Buttress Numbers 2 to 3
- Drawing 2X2AF04-58-5, Horizontal Tendon Elevation Unit 2, Buttress Numbers 3 to 1
- Drawing 2X2AF04-148-1, Vertical Tendon Stressing Data
- Drawing AX2AF04-110-4, Grease Cap Details
- Drawing AX2AF04-109-4, Tendon Grease Caps

Examination of the above documents indicated that FSAR requirements were being implemented in Site Specifications, procedures, and drawings.

Within the areas examined, no violations were identified.

7. Containment (Post-Tensioning) Observation Of Work (47063) - Unit 2

The inspector walked down the Unit 2 tendon gallery and examined vertical tendons that have been installed and observed ongoing pulling operations for six vertical tendons. Examination of completed work showed that two-thirds of the vertical tendons have been installed. During this inspection, discussions with QC inspectors and responsible engineers disclosed that all of the horizontal tendons have been installed and that tendon operations are 76 percent complete on Unit 2.

Inspection of work activities and discussions with QC inspectors and responsible engineers showed that post-tensioning activities were being performed in accordance with FSAR requirements and quality assurance implementing procedures drawings and specifications.

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

8. Containment (Post-Tensioning) Review Of Quality Records (47065) - Unit 2

The inspector examined quality records relating to post-tensioning activities for the Unit 2 containment. Acceptance criteria examined by the inspector appear in paragraph 6. Records examined included tendon grease reports, receipt inspection records, and installation records for the following vertical and horizontal tendons:

VERTICAL TENDONS

Tendon 18-94	Tendon 36-76	Tendon 55-131
Tendon 20-92	Tendon 39-147	Tendon 57-129
Tendon 22-90	Tendon 41-45	Tendon 59-127
Tendon 24-88	Tendon 43-143	Tendon 61-125
Tendon 24-86	Tendon 45-141	Tendon 63-123
Tendon 28-84	Tendon 47-139	Tendon 65-121
Tendon 30-82	Tendon 49-137	Tendon 67-119
Tendon 32-80	Tendon 51-135	Tendon 69-117
Tendon 34-78	Tendon 53-133	Tendon 71-115

HORIZONTAL TENDONS

Tendon 1	Tendon 12	Tendon 20
Tendon 2	Tendon 13	Tendon 21
Tendon 3	Tendon 14	Tendon 22
Tendon 4	Tendon 15	Tendon 23
Tendon 8	Tendon 16	Tendon 24
Tendon 9	Tendon 17	Tendon 25
Tendon 10	Tendon 18	Tendon 26
Tendon 11	Tendon 19	Tendon 27

HORIZONTAL TENDONS

Examination of records for the above tendons indicated that the tendons were being installed in accordance with specifications and drawing requirements and that the installations were being witnessed and documented by QC inspectors.

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

9. Licensee Identified Items (92700)

(Closed) CDR84-61, Nuclear Service Cooling Water Tower Crossover Piping Backfill Location. During an engineering review of buried piping locations, initiated to evaluate various backfill placement techniques, safety-related Nuclear Service Cooling Water (NSCW) transfer discharge pipes (1202-036-6 and 1202-029-6) in Units 1 and 2 were found to be routed into a portion of Category I backfill that may be affected by the potential liquefaction of the adjacent in-situ sand stratum of in-situ soil. The subject piping for Unit 1 had been installed but not backfilled against. The piping for Unit 2 had not been installed. Corrective actions included rerouting pipelines 1202-036-6 and 1202-029-6 into acceptable backfill areas and revising drawings to show acceptable areas. A review of the location routing of safety-related structures, buried piping and buried electrical duct banks was made to verify that the potential liquefaction of adjacent in-situ stratum will not affect their safety functions. This item is closed.