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

Report Nos. 50-424/82-26 and 50-425/82-26

Licensee: Georgia Power Company
270 Peachtree Street
Atlanta, GA 30303

Facility Name: Vogtle

Docket Nos. 50-424, 50-425

License Nos. CPPR-108 and CPPR-109

Inspection at Vogtle site near Waynesboro, Georgia

Inspector: J. R. Harris 11/12/82
J. R. Harris Date Signed

Approved by: T. E. Conlon 11-12-82
T. E. Conlon, Section Chief Date Signed
Engineering Inspection Branch
Division of Engineering and Technical Programs

SUMMARY

Inspection on October 26-29, 1982

Areas Inspected

This routine, unannounced inspection involved 28 inspector-hours on site in the areas of licensee action on previous inspection findings, structural concrete, foundations, and a previously identified inspector followup item.

Results

Of the four areas inspected, no violations or deviations were identified in three areas; one deviation was found in one area (Failure to perform separate tensile test cyles for each splicing crew paragraph 8).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*H. H. Gregory, III, Project Manager, Construction
*M. Manry, Plant Manager, Power Generation
*P. D. Rice, General Manager QA and Radiological Health and Safety
*C. R. Miles, Jr., QA Field Supervisor
*E. D. Groover, QA Site Supervisor
*B. C. Harbin, Civil Project Section Supervisor
T. Weatherspoon, Assistant Manager, QC
*J. E. Seagraves, Civil QC Supervisor
W. Shanks, Senior Civil QC Inspector
W. Davis, Area Engineer, Civil

Other licensee employees contacted included five construction craftsmen, ten technicians, two security force members and three office personnel.

Other Organizations

*W. G. Uhouse, Resident Engineer, Bechtel
B. Kelleher, Geologist, Bechtel

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 29, 1982, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection finding. The following item was opened. Deviation 424, 425/82-26-01, Failure to perform separate tensile test cycles for each splicing crew.

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item (424, 425/82-03-01) - Compaction Control. Because of the judgment factor involved in selecting proctors used to control compaction, the inspector requested additional testing be done to verify that representative proctors are being selected. Examination of the additional testing results demonstrated that representatives proctors are being selected. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection

The inspector examined the following worker expressed concerns:

a. Cold joint in the Unit 1 containment building wall.

A concern was expressed by an individual that an undocumented cold joint exists in the first or second pour above the basemat between an azimuth of 80 to 100 degrees.

The inspector visually examined the exterior wall of the containment building in the area of concern and reviewed records of the first three concrete pours above the basemat. Concrete pour records examined were for pour numbers 1-010-001/1-010-002, 1-010-003 and 1-010-004. Examination of records and discussions with responsible QA inspectors disclosed no evidence that a cold joint developed during the above listed pours. On a previous inspection during examination of the containment building wall in the area of concern, the inspector observed a line indicating a joint surface along which were voids, bits of rags and wire. The joint is located at elevation 191 and represents a construction joint which was not properly cleaned prior to placing additional concrete. Examination of records showed that this nonconforming condition was identified on deviation report number CD-178. Reexamination of the area showed the joint had been cleaned and repaired. During this inspection, the inspector examined the containment wall again with another individual who had expressed a concern that a possible cold joint existed in pour number 1-010-001/1-010-002. The individual showed the inspector a wavy line of discontinuity occuring at an azimuth of about 100 degrees at elevation 183. The worker stated he was not present during the pour but when the forms were stripped he noticed the line and thought at first that it might represent a cold joint. He also stated that later he realized the line probably represented a form mark or a boundary line between adjacent batches of concrete caused by improper vibration. Based on examination of the area and review of records as discussed above, the inspector concluded that the line was not a cold joint.

b. Acceptability of QC Inspection Records

A concern was expressed by an individual that the method of documenting the identity of QC inspectors on concrete placement records may not provide adequate traceability of work inspected by inspectors.

The inspector examined documentation identifying inspectors who performed acceptance of concrete pour activities and discussed inspection signoff with eight QC inspectors. Discussions with responsible QC inspectors and examination of records showed that inspectors performing preplacement inspection, placement inspection, and testing

of concrete during placements are being identified on pertinent documentation. Some preplacement activities are signed off by a responsible inspector who may or may not have looked at the actual work but who had discussed findings with inspectors that did the inspections. However, placement documentation called pour packs identify all inspectors who performed acceptance of any part of the pour activity. Georgia Power communication number X7BG02 was issued June 9, 1982, to identify and reclarify responsibility for inspection and inspection signoff. The inspector concluded that the documentation of the identity of QC inspectors in the concrete placement records was adequate.

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

6. Containment, Structural Concrete II (47054) - Unit 2

The inspector observed partial placement of pour number 2-010-004 in the Unit 2 containment building wall. Acceptance criteria examined by the inspector appear in the following documents:

a. Specification X2AP01, Forming, Placing , Finishing, and Curing Concrete

b. Procedure CD-T-02, Concrete Quality Control

c. Procedure CD-T-06 Cadweld Quality Control

d. PSAR, Sections 3 and 17

Forms were tight and clean. Rebar was properly installed and clean. Examination of the batch plant indicated proper mixes were being delivered, materials were being controlled, and that accurate batch plant records were being generated. Samples for temperature, slump, air content, unit weight, and strength met frequency requirements. Concrete placement activities pertaining to delivery time, free fall, flow distance, and consolidation conformed to procedure and specification requirements. Interviews with QC inspection personnel indicated that the QC personnel were knowledgeable in placement and testing requirements. Examination of the pour card indicated that the required preplacement inspections were performed by the responsible inspectors. Post placement inspection showed that proper curing controls were being maintained.

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

7. Site Preparation and Foundations - Observation of Work and Work Activities (46153B) Unit 1 and Unit 2

The inspector observed installation of caissons and examined associated quality records for the rad-waste building foundation. The operation was being monitored by a Bechtel geologist and Georgia Power Company engineering

technician. Observation of ongoing work and examination of records showed that the work was being performed in accordance with Bechtel specification X2AP01, Section C12.3 and procedure CD-0-23.

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

8. Inspector Identified Item (IFI)

(Closed) IFI (424/82-17-01), Cadweld Testing. This inspector followup item is closed and upgraded to a deviation as discussed below.

Paragraphs 3.8.1.2 and 3.8.1.2.3 of the PSAR state that Regulatory Guide 1.10 is to be used as the basis for the making of mechanical (Cadweld) splices in reinforcing bars of Category I concrete structures. Position C.4 of Regulatory Guide 1.10 requires that separate tensile test cycles be established for mechanical splices in horizontal, vertical, and diagonal bars for each bar size, and for each splicing crew. Contrary to regulatory position C.4, separate test cycles have not been established for each splicing crew. Cadweld testing is being based on the number of cadwelds inspected by each QC inspector without regard to cadwelder or cadweld crew that made the cadweld splice. Failure to establish separate test cycles for each splicing crew as committed to in the PSAR was identified to the licensee as deviation number 424, 425/82-26-01, Failure to perform separate test cycles for each splicing crew.