



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

Report Nos.: 50-424/86-19 and 50-425/86-10

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: March 17-21, 1986

Inspector:

[Signature]
W. P. Kleinsorge

April 10, 1986
Date Signed

Approved by:

[Signature]
J. J. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

4/11/86
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 37 inspector-hours on site in the areas of housekeeping (54834B), material identification and control (4290213), material control (42940B), steel structures and supports (Unit 1 and Unit 2), safety-related heating, ventilation, and air conditioning (HVAC) systems (50100), and Inspector Followup Items (92701B).

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. H. Conway, Senior Vice President
- *R. H. Pinson, Vice President
- *E. D. Groover, Site Quality Assurance Manager
- *M. H. Googe, Project Construction Manager

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

NRC Resident Inspectors

- *H. Livermore
- J. Rogge
- R. Shepens

*Attended exit interview

2. Exit Interview (30703B)

The inspection scope and findings were summarized on March 21, 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.

(Open) Unresolved Item 50-424/86-19-01 and 50-425/86-10-01:
"Construction Loads on Installed Equipment" - paragraph 5b.

(Open) Inspected Followup Item 50-424/86-19-02: "Unavailable HVAC Filter Records" - paragraph 7e.

(Open) Violation 50-424/85-62-01: Improper Storage of Piping Materials, paragraph 5a., the inspector identified additional examples of this violation. The licensee stated that they would address these additional examples in their response to this violation.

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 (92701B) (92702B)

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items area matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 5b.

5. Independent Inspection Effort

Housekeeping (54834B), Material Identification and Control (42902B) and Material Control (42940B)

The inspector conducted a general inspection of the power block construction area and material laydown storage areas to observe activities such as housekeeping, material identification and control; material control, and storage.

- a. With regard to the inspection above, the inspector noted numerous examples, in four separate laydown areas, of reinforcing steel and structural items off cribbing, on the ground, contrary to Specification X2AP01, Division C3, Section C.3.4 "Placing Reinforcing Steel" Revision 12, Paragraph C3.4.5 A.1; Specification X2AP01, Division C9 Section C9.1 "Field Fabricated Miscellaneous 'Q' Class Steel", Revision 17, Paragraph C9.1.5.3; GPC Procedure GD-T-17, "Housekeeping", Revision 4, paragraph 4, paragraph 5.1.1; GPC Procedure GD-A-30 "Receipt, Receipt Inspection, Storage and Handling" Revision 11; and ANSI N45.2.2-1972, "Packaging Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (during the construction phase), paragraph Nos. 2o7o4(11) and (12) and 6.1.2(4) which require reinforcing steel and structural steel items to be stored on cribbing off the ground. The above are additional examples of the violation reported in NRC Report No. 50-424/85-62. The inspector discussed the above matter with the licensee. The licensee indicated that they would address the issue of improper storage of reinforcing steel and structural steel items with the response to violation 50-424/85-62-01 for improper storage of piping materials.
- b. With regard to the inspection above the inspector noted the following:
 - Scaffolding, in Room RB-74 Auxiliary Building Unit 1, supported by three HVAC duct supports.
 - Personnel climbing on and walking across HVAC air handling unit tag No. A-1541-A7-001 located in the control building level 4.

The inspector discussed the above with the licensee in order to determine whether the above construction loads were analyzed and authorized prior to installation or application. At the time of this inspection, the licensee was unable to provide the inspector any objective quality evidence of analysis and authorization for the above construction loads. The licensee indicated that they would evaluate

both construction loads. Pending NRC review of the licensee's evaluation to determine whether the licensee's program for the protection of installed equipment from construction loads is adequate this matter will be identified as unresolved item 50-424/86-19-01, and 50-425/86-10-01: "Construction Loads on Installed Equipment."

Within the areas examined, no violations or deviations were identified except as discussed in paragraph 5a.

6. Steel Structures and Supports (Units 1 and 2)

The inspector observed welding work activities and reviewed records for steel structures and supports as described below to determine whether applicable code and procedure requirements were being met. The applicable code for containment fabrication welded by Chicago Bridge & Iron (CB&I) is the American Society of Mechanical Engineers Boiler and Pressure (ASME B and PV) Code Section III, 1974 edition with addenda through summer 1975, and Section VIII, 1974 edition with addenda through summer 1975. The applicable code for electrical and civil structures, described herein, welded by Cleveland is AWS D1.1-81 and Ingalls is AWS D1.1-75. The applicable code for HVAC supports described herein, welded by Pullman/Kenith - Forstom Co. (P/K-F), is AWS D9.1-80 and AWS D1.1-77. The applicable code for pipe supports described herein, welded by Pullman Power Products (PPP), is ASME B & PV Code Section III NF 77W77.

- a. The below listed welds were examined in-process to determine work conducted in accordance with traveler; welder identification and location; welding procedure assignment; welding technique and sequence; materials identity; weld geometry; fit-up; temporary attachments; gas purging; preheat; electrical characteristics; shielding gas; welding equipment condition; interpass temperature; interpass cleaning; process control systems; identity of welders; qualification of inspection personnel; and weld history records.

(1) Outside Containment (55154B)

PPP

V-2-1902-048-H608	Unit 2
V-2-1902-048-H607	Unit 2
V-2-1902-048-H602	Unit 2

Ingalls

Det 9 ALT 2 on AX-2D94V040	Unit 2
Det 7 on AX-2D94V040	Unit 2

Cleveland

TS-154-260
 TS-154-316

P/K-F

Duct Support DS-211 A102-88 Unit 2
 Duct Support DS-211 B103-166 Unit 2
 Duct Section C-1319

(2) Inside Containment (55153B)

The below examination was made on completed work and included weld inspection and record review to determine the attributes listed in paragraph 6a. This inspection method was selected because the window of opportunity for observation of structural welding inside the Unit 1 containment has passed.

The inspector examined selected welds on the below structures and supports.

PPP

- Pipe Support 1X5D410452B Rev. 0 Unit 1
- Whip Restraint End Connection at Embed 17'-2 7/16", 11'-4 9/16" on drawing M01G-S91 Rev. 7 - Unit 1

Cleveland

- Tray Support TS-002-007-Unit 1

P/K-F

- Duct Support 1D11133-1/W212-Unit 1

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

7. Safety-Related Heating, Ventilating and Air Conditioning (HVAC) Systems (50100)

The inspector reviewed the licensee's HVAC program to determine whether the technical requirements detailed or referenced in the facility Safety Analysis Report associated with safety-related HVAC systems had been

adequately addressed in the construction specifications, drawings and work procedures. The applicable codes for the fabrication and installation of HVAC systems are:

AWS-D1.1-77
 AWS-D9.1-80
 AWS-D3.0-77
 ASME Section IX-80
 ANSI B31.1-77

Observation of Work and Work Activities

a. Personnel Interviews (Installation Practices)

The inspector interviewed six craftsmen engaged in the installation of seismic supports, and duct work, to confirm the following:

- Predefined and approved procedures are followed when it becomes necessary to relocate any seismic support or other safety-related equipment from its original location specified on drawings.
- Any preinstallation field repairs or adjustments to the HVAC equipment are performed in accordance with the manufacturer's instructions and specifications to ensure that proper materials, replacement parts and supplies are used, performance requirements are met and are reviewed by engineering for acceptance.
- Personnel engaged in the installation and inspection of safety-related supports, ductwork and other safety-related HVAC equipment had received adequate training to understand and perform work contained in relevant work and inspection procedures and instructions.

b. Installation Activities (Unit 2)

The inspector witnessed portions of the installation activities indicated below to verify the following:

- The latest issue (revision) of applicable drawings or procedures is available to the installers and is being used.
- Modifications to supports are approved by appropriate personnel before implementation.

<u>Activity</u>	<u>Component</u>
Welding & Fitting	Duct Support 211-A-102-88
Welding & Fitting	Duct Support 211-B-103-166
Welding & Fitting	Duct Section 1319

c. Review of Quality Records (Unit 1)

The inspector reviewed quality records for Nuclear Grade Charcoal, Batch No. 120584 and HEPA Filter Serial Nos. 41341241-41341260 to verify compliance with the applicable portions of Regulatory Guide 1.52. At the time of this inspection, the licensee was unable to provide objective quality evidence (OQE) as required by ANSI/ASME N509-1980, paragraphs 5.1.3 and 5.2.5 and Regulatory Guide 1.52, Rev. 2, paragraph 3i. The licensee indicated that they would acquire the necessary OQE. Pending NRC review of the filter and charcoal OQE for compliance to Regulatory Guide, this matter will be identified as inspector followup item 50-424/86-19-02: "Unavailable HVAC Filter Records."

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

8. Inspector Followup Items (92701B)

(Closed) Item 50-424/85-60-02 and 50-425/85-40-02: Unposted Drawing Change Documents.

This matter concerned an unposted drawing change document. The inspector examined selected drawings on a number of drawing stick files for posting of drawing change documents. The inspector determined that the missing document identified in this item was an isolated example. The inspector has no further question. This matter is considered closed.