



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

Report Nos.: 50-424/85-23 and 50-425/85-23

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: June 3-7, 1985

Inspector:

*[Signature]*  
W. P. Kleinsorge

*6/17/85*  
Date Signed

Approved by:

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

*6/20/85*  
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 40 inspector-hours on site in the areas of licensee action on previous enforcement matters (92702B), construction progress (92706B) (Units 1 and 2), safety-related heating, ventilation, and air conditioning (HVAC) systems (50100) (Unit 1), licensee identified items (92700B) (Units 1 and 2), and IE Bulletin (IEB) (92703B) (Units 1 and 2).

Results: One violation was identified - "Failure to install pressure taps in accordance with the FSAR P&ID" - paragraph 6. No deviations were identified.

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## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*B. C. Harbin, Manager, Quality Control (QC)
- \*E. D. Groover, Quality Assurance (QA) Site Manager
- \*D. L. Daniels, Assistant QC Manager
- D. McCaury, Civil Engineer Supervisor

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

#### Other Organizations

- Bechtel Power Corporation (BPC)
- \*J. W. Carson, QA
- Ogdetherpe Power Corporation (OPC)
- \*D. R. Murphy, Construction Engineer

#### NRC Resident Inspectors

- W. F. Sanders
- J. F. Rogge
- \*R. J. Schepens

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on June 7, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee.

(Open) Inspector Followup Item 424, 425/85-23-01: "Calibration Block Material Identification" - paragraph 3.b.

(Open) Violation 424/85-23-02: "Failure to Install Pressure Tab in Accordance with the FSAR and P&ID" - paragraph 6.

The licensee did identify as proprietary some of the materials provided to, and reviewed by the inspector during this inspection, however this material is not discussed in this report.

### 3. Licensee Action on Previous Enforcement Matters

- a. (Closed) Violation 50-424, 425/84-26-01: "Failure to address all Essential Variables in WPS"

Georgia Power Company (GPC) letter of response dated November 14, 1984 has been reviewed and determined to be acceptable by Region II. The inspector held discussions with cognizant engineers and examined the corrective actions as stated in the letter of response. The inspector concluded that GPC had determined the full extent of the subject noncompliance, performed the necessary survey and follow-up actions to correct the present conditions and developed the necessary corrective actions to preclude recurrence of similar circumstances. The corrective actions identified in the letter of response have been implemented.

- b. (Closed) Violation 50-424, 425/84-36-02: "Lack of Procedure for UT Calibration Standards"

GPC letter of response dated April 2, 1985 has been reviewed and determined to be acceptable by Region II. The inspector held discussions with cognizant engineers and examined the corrective actions as stated in the letter of response. The inspector concluded that GPC had determined the full extent of the subject noncompliance, performed the necessary survey and follow-up actions to correct the present conditions and developed the necessary corrective actions to preclude recurrence of similar circumstances. The corrective actions identified in the letter of response have been implemented.

The inspector noted that two calibration blocks were identified as "steel" and two others were identified as "stainless steel" (B-35A-18, and 19 and B-35B-18 and 19). The licensee was unable to provide any more definitive information as to type of "steel" or "stainless steel", but they indicated that they would take the steps necessary to identify the calibration block material. The violation is considered closed; however, the above calibration block material identification question will be identified as inspector followup item 424, 425/85-23-01: "Calibration Block Material Identification".

- c. (Closed) Violation 50-424, 425/85-02-01: "Failure to Establish Adequate Measures to Control Drawing Change Distribution"

GPC letter of response dated March 21, 1985 has been reviewed and determined to be acceptable by Region II. The inspector held discussions with cognizant engineers and examined the corrective actions as stated in the letter of response. The inspector concluded that GPC had determined the full extent of the subject noncompliance, performed the necessary survey and follow-up actions to correct the present conditions and developed the necessary corrective actions to preclude recurrence of similar circumstances. The corrective actions identified in the letter of response have been implemented.

- d. (Closed) Unresolved Item 424, 425/84-26-02: "Unavailable PQR"

This item concerns the unavailability of a Procedure Qualification Record (PQR) for welding flair bevel welds. The licensee provided a PQR to cover the weld in question. This matter is considered closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort (92706B) (Units 1 and 2)

Construction Progress

The inspector conducted a general inspection of construction block and adjacent area to observe construction progress and construction activities such as welding, material handling and control, housekeeping and storage.

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

6. Safety-Related Heating, Ventilation, and Air Conditioning (HVAC) Systems (50100) (Unit 1)

The inspector reviewed the licensee's HVAC program to determine whether the technical requirements detailed or referenced in the facility Final Safety Analysis Report (FSAR) 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/O-77  
 ASME Section IX-80  
 ANSI B31.1-77

As-Installed Equipment

The inspector made a walk down of Control Room Air Intake System from Tornado Damper A-1531-W7-304 shown on BPC-AX4DJ2101 to Fire Damper A-1531-S7-567 shown on BPC-AX4DJ2107 to observe the completed installation of the following equipment for proper location, configuration, identification, and damage. The basis for this determination was the FSAR system description, piping and instrumentation diagrams (P&IDs), specification, and installation drawings. The drawings used and the items examined are listed below.

Drawings

BPC-AX5DX-2101, Rev. 4  
 BPC-AX5DX-2109, Rev. 3  
 BPC-AX4AJ07-493, Rev. E  
 BPC-AX4AJ07-494, Rev. E  
 BPC-AX4AJ07-495, Rev. E  
 BPC-AX4AJ07-13, Rev. P  
 BPC-AX4AJ07-14, Rev. P  
 BPC-AX4DB-206-3, Rev. 10  
 BPC-AX4DJ-2118, Rev. 5  
 BPC-AX4DJ-2101, Rev. 10  
 BPC-AX4DJ-2109, Rev. 9  
 BPC-AX4DJ-2104, Rev. 11  
 BPC-AX4DJ-2107, Rev. 11  
 BPC-AX4DB206-1, Rev. 11  
 BPC-AX2D11W128, Rev. 11  
 BPC-AX2D11W130, Rev. 10  
 BPC-AX2D11W126, Rev. 11  
 BPC-AX2D11W120, Rev. 10

Items ExaminedIdentificationDescription

1-PDI-12137A	Magnahelic Gauge (0 to 2 in)
1-PDI-12137D	Magnahelic Gauge (0 to 25 in)
1-PDT-12137B	Pressure Transmitter (0 to 25 in)
1-PDT-12137A	Pressure Transmitter (0 to 5 in)
1-PDI-12137B	Magnahelic Gauge (0 to 5 in)
A-1531-W7-304	Tornado Damper
DS-A113101-146	Duct Support
1-HV12115	Mechanical Damper
1-HV12114	Mechanical Damper
DS-A113101-145	Duct Support
DS-A113101-73	Duct Support
DS-A113101-71	Duct Support
DS-A113101-162	Duct Support
DS-A113101-146	Duct Support
1-1531-B7-006-000	Return and Exhaust Fan
1-1531-N7-002-000	Filter Unit with/AC
1-1531-Q7-002	Duct Silencer
A-1531-S7-567	Fire Damper

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The connecting duct sections for the above items.

With regard to the inspection above, the inspector noted the following:

- Gauge PDI-12137B measures pressure drop across the high-efficiency particulate air (HEPA) filter only. The above is contrary to BPC P&ID drawing AX4DB-206-3 Rev. 10 and FSAR Figure 9.4.1-2 (sheet 3 of 3) which require gauge PDI-12137B to measure the pressure drop across the HEPA filter and the downstream cooling coil unit.
- Gauge PDI-12137D measures pressure drop across the entire 1-1531-N7-002-000 filter unit except for the downstream cooling coil unit. The above is contrary to BPC P&ID drawing AX4DB-206-3, Rev. 10, FSAR Figure 9.4.1-2 (sheet 3 of 3) and FSAR Table 6.4.6-1 which require gauge PDI-12137D to measure pressure drop across the total filter unit including the cooling coils unit.
- Several pressure taps, intended to measure differential pressure across HEPA filters, had the low pressure tap located inside the HEPA filter rack support assembly, and not down stream of the filter assembly as shown in BPC P&ID drawing AX4DB-206-3, Rev. 10 and FSAR Figure 9.4.1-2 (sheet 3 of 3).
- Several Pitot Tubes were pointed down stream with the tube opening way from the oncoming air flow. The above is contrary to the design function of Pitot tubes.

The inspector discussed the above with the licensee who documented the same in Deviation Report Control No. PK-2392.

The above are clear examples of failure to perform activities affecting quality in accordance with drawings, which is in violation of Title Ten Code of Federal Regulations Part 50, Appendix B, criterion V. This violation will be identified as 424/85-23-02: "Failure to Install Pressure Taps in Accordance With the FSAR and P&ID".

Within the areas examined, no violations or deviations were identified except as noted above.

7. Licensee Identified Items (92700B) (Units 1 and 2)

a. (Closed) Item 424,425 CDR 84-55: "HVAC Duct Support Weld Discrepancies"

This item was reported to Region II by the licensee in a letter dated March 2, 1984. It involves weld discrepancies detected in HVAC duct supports. The licensee has utilized MIL STD 105D sampling in their evaluation. The resident inspector questioned the applicability of MIL STD 105D to the items and conditions being evaluated.

From a list of 3635 installed and inspected HVAC duct supports, BPC the Vogtle architect-engineer, randomly selected a statistical sample of 60 supports to satisfy a 95/95 confidence level of support integrity. This sample was used in a comprehensive visual reinspection program, using the acceptance criteria of Appendix VC to the HVAC specification (X4AJ01), to identify clearly and accurately all weld indications on each discrete weld of each support in the sample.

The GPC Construction Department submitted the results of the reinspection program to BPC on June 21, 1984. BPC conducted an independent determination of the equivalent available as-built weld for each reinspected weld with indications, and a verification that adequate design margin exists between the required weld strength by design and the available as-built strength.

This inspector examined the statistically unbiased sample, reviewed the calculations performed by BPC, and had discussions with licensee and BPC representatives. Based on this inspection, it appears that the sampling and reinspection adequately represent the HVAC support population, and that the calculations support the GPC contention that the supports are adequate for their intended service. The question of reportability under 10 CFR 50.55(e) is discussed in NRC Report 424, 425/85-22.

8. IE Bulletin (IEB) (92703B) (Units 1 and 2)

- a. (Open) IEB No. 80-08: "Examination of Containment Liner Penetration Welds", Units 1 and 2

The inspector has reviewed GPC's letter of June 26, 1980, and determined that the requested actions of the Bulletin have been acceptably addressed. The inspector held discussions with responsible engineers, reviewed supporting documentation and observed representative samples of work to verify that the actions identified in the letter of response have been completed. The inspector selected a sample of penetrations for radiographic film review. The sample is indicated below. The inspector reviewed the radiographs of the joints welded by Pullman Power Products (PPP) and Chicago Bridge and Iron (CB&I); however, the vendor welded intermediate sleeve butt weld radiographs were not available at the time of this inspection. This matter remains open pending NRC review of the above indicated radiographs.

<u>Unit No.</u>	<u>Penetration No. &amp; Type</u>	<u>Butt Welded Intermediate Sleeve</u>	<u>Organization</u>
1	3 - I	No	PPP
1	15 - II	Yes	PPP
2	23 - I	No	CB&I
2	24 - II	Yes	CB&I
1	67A - III	Yes	PPP
2	67B - III	Yes	CB&I

- b. (Closed) IEB No. 83-06: "Nonconforming Materials Supplied by Tube-Line Corp", Units 1 and 2

The inspector has reviewed GPC's letters of November 23, 1983, March 22, 1984, January 14, 1985, February 12, 1985, and May 31, 1985, and determined that the requested actions of the Bulletin have been

acceptably addressed. The inspector held discussions with responsible engineers, reviewed supporting documentation and observed representative samples of work to verify that the actions identified in the letters of response have been completed.

- c. (Closed) IEB No. 83-07: "Apparently Fraudulent Products Sold by Ray Miller Inc.," Units 1 and 2

The inspector has reviewed GPC's letters of March 12, 1984, June 26, 1984 July 5, 1984, and February 12, 1985, and determined that the requested actions of the Bulletin have been acceptably addressed. The inspector held discussions with responsible engineers, reviewed supporting documentation and observed representative samples of work to verify that the letters of response have been completed.