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

Report Nos.: 50-424/87-36 and 50-425/87-25

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

Docket Nos.: 50-424 and 50-425 License Nos.: NPF-61 and CPPR-109

Facility Name: Vogtle 1 and 2

Inspection Conducted: May 25-28, 1987

Inspector: _____ 6/23/87
for G. A. Hallstrom Date Signed

Approved by: _____ 6/23/87
J. J. Blake, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, announced inspection was in the areas of licensee actions on previous enforcement matters (units 1 and 2), housekeeping (unit 2), materials control (unit 2), and welding activities associated with safety-related piping (units 2).

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*P. D. Rice, Vice President and Vogtle Project Director
*R. H. Pinson, Vice President, Construction
*C. W. Hayes, Project Quality Assurance (QA) Manager
*E. D. Groover, QA Site Manager, Construction
*G. A. McCarley, Project Compliance Coordinator
D. M. Fiquett, Unit II Field Construction Manager
*J. E. Sanders, Assistant Project Construction Manager, Unit II
*R. Hollands, Electrical Field Office Coordinator, Compliance
W. C. Ramsey, Project Engineering Manager
A. M. Harrelson, Electrical Discipline Manager

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

Other Organizations

*C. Garrett, Ogelthorpe Power Corporation, Construction Engineer
D. W. Strohman, Bechtel Power Corporation (BPC), Project Quality Assurance Engineer
R. Valdez, BPC QA Engineer
S. Pietrzyk, BPC Field Project Electrical Engineer
B. L. Edwards, Pullman Power Products (PPP), Resident Construction Manager
J. E. Miller, PPP, QA Manager
T. C. Clark, PPP, Assistant QA Manager
R. Pauis, PPP, QA-Welding Supervisor
J. Agold, Southern Company Services (SCS), Preservice/Inservice Inspection Supervisor

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 28, 1987, 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

a. (Closed) Unresolved Item 424/85-07-02, Preservice Inspection Program Procedures

This item concerned establishment of Preservice Inspection (PSI) procedures to define PSI responsibilities, audits, control of materials, and indoctrination/training of vendor PSI personnel. NRC concerns had been previously addressed in a June 1985 GPC/SCS procedure (ADM-U-127) but this item had remained open pending further NRC review. (Inspection Report No. 50-424/85-25) Cognizant Licensee personnel informed the inspector that ADM-V-127 had been superseded on December 15, 1986, by GPC procedure 09.80-1, Plant Vogtle-Site Responsibilities for ITE activities. The inspector reviewed procedure 09.80-1 and concluded that the procedure was adequate to resolve NRC concerns This item is considered closed.

b. (Closed) Violation 424/87-14-01, Failure to Assure Adequate Protection of Vital Equipment

GPC's letter of response dated May 8, 1987, has been reviewed and determined to be acceptable by Region II. The inspector examined the corrective actions as stated in the response.

The inspector concluded that GPC had determined the full extent of the subject violation, performed the necessary survey and followup actions to correct the subject conditions, and developed the necessary corrective actions intended to preclude the recurrence of similar circumstances. The corrective actions identified in the letter of response were implemented.

c. (Closed) Violation 425/87-05-01, Failure to Protect Permanent Plant Equipment

GPC's letter of response dated March 5, 1987, has been reviewed and determined to be acceptable by Region II. The inspector examined the corrective actions as stated in the response. The inspector concluded that GPC had determined the full extent of the subject violation, performed the necessary survey and followup actions to correct the subject conditions, and developed the necessary corrective actions intended to preclude the recurrence of similar circumstances. The corrective actions identified in the letter of responses were implemented.

d. (Closed) Violation 425/87-10-02, Failure to Follow Procedures for Control of Welding

GPC's letter of response dated May 13, 1987, has been reviewed and determined to be acceptable by Region II. The inspector examined the corrective actions as stated in the response. The inspector concluded that GPC had determined the full extent of the subject violation, performed the necessary survey and followup actions to

correct the subject conditions, and developed the necessary corrective actions intended to preclude the recurrence of similar circumstances. The corrective actions identified in the letter of response were implemented.

e. (Closed) Violation 425/87-10-03, Failure to Accomplish Adequate Corrective Action

GPC's letter of response dated May 13, 1987, has been reviewed and determined to be acceptable by Region II. The inspector examined the corrective actions as stated in the response. The inspector concluded that GPC had determined the full extent of the subject violation, performed the necessary survey and followup actions to corrective actions intended to preclude the recurrence of similar circumstances. The corrective actions identified in the letter of response were implemented.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

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

The inspector conducted a general inspection on Unit 2 containment and the reactor auxiliary building to observe activities such as housekeeping, material identification and control; material control, and storage.

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

6. Safety-Related Piping (Unit 2)

The inspector examined welding and nonwelding activities for safety-related piping to determine whether applicable code and procedure requirements were being met. The applicable code for safety-related piping is the ASME Boiler and Pressure Vessel Code, Section III, 1977 Edition with Addenda through W77.

a. Review of Nonwelding Quality Records (49065)

The inspector selected various safety-related piping components (e.g., pipe, fittings and welded-in components) for review of pertinent records to determine conformance with procurement, storage and installation specifications and QA/QA site procedures.

Records of the following items were selected for review to ascertain whether they (records) were in conformance with applicable requirements relative to the following areas: material test

reports/certifications; vendor supplied NDE reports; Nuclear Steam Service Supply quality release; site receipt inspections; storage; installation; vendor nonconformance reports.

Item	Heat/Control No.	System
2½" dia SS Sched 40 pipe	472432	Containment Air Cooling
1" dia CS RD HD plug	013B	Main Steam (Header Assembly)
1" dia CS 6000# Sockolet	SP No. 2-1301 105-S-02	Main Steam (Header Assembly)
½" dia SS sched 80 Pipe	474744	Main Steam
½" dia SS Coupling	ENE	Main Steam
1" dia SS Sched 40 Pipe	466422	Radiation Monitoring
Containment Penetration No. 13A	S/N 1153	Radiation Monitoring
½" dia SS Sched 80 Pipe	470320	Main Steam (Blowdown Samples)
Containment Penetration No. 12	S/N 1140	Main Steam (Blowdown Sample)
2" dia. CS Sched 160 Pipe	W12253	Auxiliary Component Cooling Water
2" dia. CS 6000# 90°ell	R15K	Auxiliary Component Cooling Water
1½" dia. CS Sched 80 Pipe	D27320	Essential Chilled Water
1½" dia. CS 1500# Gate Valve	S/N H339AAR	Essential Chilled Water
2" x 1" SS SWAGE FTG	M7747	Nuclear Service Cooling Water
1" dia SS 1500# Globe Valve	S/N BG313	Nuclear Service Cooling Water

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

b. Welding Activities

(1) Production Welding (55050)

The inspector observed in-process welding activities of safety-related piping field welds inside containment and the reactor auxiliary building as described below to determine whether applicable code and procedure requirements were being met.

The below listed welds were examined in-process to verify work conducted in accordance with traveler, welder identification and location, welding procedures, WPS assignments, 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, qualifications of inspection personnel, and weld history records.

ISO	Weld	Size	Status
2V4-1501-035-01 R/1	035-W-03A	2½"	Hot Pass
2K5-1301-002-01 R/7	105-W-103A	1"	Fill Pass
2K4-1301-068-01 R/1	068-W-122	½"	Final Weld*
2K4-1609-019-01 R/0	019-W-110	1"	Root Pass
2K4-1301-102-02 R/1	102-W-116	½"	Fill Pass
2J4-1217-150-01 R/0	150-W-718	2"	Fill Pass
2K3-1592-024-01 R/0	024-W-126	1½"	Fill Pass
2K3-1202-155-01 R/2	155-W-125	1"	Fit-up, Tack, Root Pass

*Welding completed but not QC inspected. Completed visual examination of final weld.

The following inspector qualification status records and QA/QC Inspector Qualification/Certification records were reviewed relative to inspection of the weld joints listed below.

Inspector	Type of Certification
EEA-PPP	VT-II
BFP-PPP	VT-II
KL-PPP	VT-II
WPK-PPP	VT-II
RJG-PPP	VT-II

(2) Welding Procedures

Welding Procedure Specifications (WPS) applicable to the weld joints listed in paragraph 6.b.(1) were selected for review and comparison with the ASME code as follows:

WPS	Process	Procedure Qualification PQR Reports
	1/ 2/	
24-111/1-8-KI-12 (3/24/84)	GTAW/SMAW	110, 120, 133
27-111/1-8-OB-12 (10/13/85)	GTAW/SMAW	110, 125, 132, 133
38-111/1-8-KI-1 (12/6/85)	GTAW	120, 121
IT10-111/1-1-OB-1 (8/15/84)	GTAW	045, 055A, 055B
IT12-111/1-1-CB-12 (4/17/85)	GTAW/SMAW	045, 034A, 055A, 055B, 058

1/ GTAW - Gas Tungsten Arc Welding
2/ SMAW - Shielded Metal Arc Welding

The above WPSs and their supporting Procedure Qualification Records (PQRs) were reviewed to ascertain whether essential, supplementary and/or nonessential variables, including thermal treatment, were consistent with Code requirements; whether the WPSs were properly qualified and their supporting PQRs were accurate and retrievable; whether all mechanical tests had been performed and the results met the minimum requirements; whether the PQRs had been reviewed and certified by appropriate contractor/licensee personnel; and whether essential were noted. WPSs are qualified in accordance with ASME Section IX, the latest edition and addenda at the time of qualification.

(3) Welder Performance Qualification

The inspector reviewed the PPP program for qualification of welders and welding operators for compliance with QA procedures and ASME Code requirements.

The following welder qualification status records and "Records of Performance Qualification Test" were reviewed relative to the weld joints-listed in paragraph 6.b.(1).

Welder Symbol	WPS
DT	24-111/1-8-KI-12
AX5	IT10-111/1-1-OB-1
ZH1	38-111/1-8-KI-1
NY	27-111/1-8-OB-12
CY-1	27-111/1-8-OB-12
CH-1	IT-12-111/1-1-OB-12
JD-2	IT-10-111/1-1-OB-1
FZ-3	38-111/1-8-KI-1

(4) Welding Filler Material Control

The inspector reviewed the PPP program for control of welding materials to determine whether materials were being purchased, accepted, stored and handled in accordance with QA procedures and applicable code requirements. The following specific area were examined.

- Purchasing; receiving, storing, and distribution and handling procedures; material identification; and inspection of welding materials issuing stations.

- Welding material purchasing and receiving records for the following material applicable to the weld joints listed in paragraph 6.b.(1) were reviewed for conformance with applicable procedures and code requirements.

Type	Size	Heat, Lot Batch/No.
IN308L	1/8" x 5/32" K-Insert	4894T308L
ER308L	1/16" x 36"	26245
ER308L	3/32" x 36"	P5474
ER308L	1/8" x 36"	P0443
E70S-2	3/32" x 36"	F8524
E70S-2	1/8" x 36"	F7164
E7018	3/32" x 14"	MM084

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

7. Previously Identified Inspector Followup Items

a. (Closed) Inspector Followup Item (424/86-120-01; 425/86-56-01)

Adequacy of Upper Tier Procedure For Design Change Notices.

This item concerned discrepancies in section C4 of the upper-tier controlling procedure for the Vogtle project (the BPC) Project Reference Manual). Paragraph 4.B of Section C4, Rev. 3 (10/28/86) established requirements for Drawing Change Notices (DCNs) without including specifies of the authority/responsibility for the necessary

approvals involved. During an earlier inspection the inspector had established that specifics regarding DCN approvals had been included in earlier revisions of the PRM but were inadvertently omitted during major revisions which occurred during 1984. However, the necessary controls had been in place in the interim since personnel involved had used non-formal "approval check-off" lists to complete daily work. These lists had been examined by readiness review teams during assessment of DCNs and no major discrepancies had been identified.

This item was opened pending correction of Section C4 and Licensee examination of the complete PRM to ensure that similar discrepancies did not exist in other areas.

The inspector reviewed internal Licensee correspondence (BPC File No. X7BD44, Log: PFE-13800) which established procedural and scheduling requirements for the PRM review. The review had been expanded to include assessment of PRM revisions necessary to implement GPC Nuclear Operations interface requirements and changes to reflect "lessons learned" from Unit 1 construction. Cognizant Licensee personnel informed the inspector that two sections of the PRM (C4-Bechtel Drawings and C9-Design Calculations) had required correction to include authority/responsibility pecifics. Twenty-two additional sections had required revisions due to Operations interface and lessons learned program enhancements. The inspector completed a review of the latest revision of PRM Sections C4 (Bechtel Drawings), C9 (Design Calculations), C 17 (Field Change Requests) and Appendix 2 - Section 19 (Greenlining). The inspector concluded that corrections were sufficient to resolve NRC concern. This item is considered closed.

b. (Open) Inspector Followup Item (425/87-10-01): Revision of Bechtel Specification X3AR01 Section E8-Raceway Systems

This item concerns need for improvement of upper-tier Bechtel Specification X3AR01 Section E8. During an earlier inspection the inspector had noted that over 30 FCRs/DCNs were outstanding for the current (Revision 23) specification. This situation caused undue complexity in the field and also caused a lack of conformance to PRM requirements for revision of specifications/drawings (Section C-26). This problem had been previously identified by a licensee audit (CAR No. VS-87-209) and completion of corrective action was not complete. This item was opened pending NRC review of CAR corrective actions and Revision 24 of Section E8. The inspector reviewed the latest revision of Section E8 (Revision 25 issued May 7, 1987) and noted that eleven FCRs/CSCNs were applicable to the new revision. Cognizant licensee personnel responded that the present situation was an improvement relative to the complexity of field use of Section E8. However, the majority of outstanding FCRs/CSNCs were the result of scheduled implementation of "lessons learned" and additional changes would be required. Implementation of "lessons learned" is anticipated by September 1987. This item remains open pending further NRC review.