



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

Report Nos.: 50-424/85-14 and 50-425/85-14

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: April 15 - 19, 1985

Inspector: George Hallstrom
G. A. Hallstrom

5/1/85
Date Signed

Approved by: J. O. Blake
J. O. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

5/2/85
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 45 inspector-hours on site in the areas of construction progress, previous enforcement matters, reactor coolant pressure boundary piping, other safety-related piping and licensee identified items (50.55(e)).

Results: One violation was identified - "Failure to follow procedure for control of welding consumables", paragraph 7.b.(4).

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *D. O. Foster, Vice President and Project General Manager
- *H. H. Gregory, General Manager, Vogtle Nuclear Construction Department
- *M. H. Googe, Project Construction Manager
- *E. D. Groover, Quality Assurance (QA) Site Manager
- *C. W. Hayes, Vogtle QA Manager
- *G. A. McCarley, Project Compliance Coordinator
- *B. C. Harbin, Manager, Quality Control (QC)
- *S. D. Haltom, QA Engineering Support Supervisor
- *J. L. Blocker, Assistant Manager, QC
- *T. L. Weatherspoon, Assistant Manager, QC
- *R. L. Davis, Senior QA Engineer
- *A. H. Lankford, QC Section Supervisor - Civil
- *F. Page, QC Section Supervisor - Construction
- *D. M. Fiquett, Unit No. 2 Field Manager
- *J. R. Downs, Contract Manager - Construction
- *R. E. Duke, Section Supervisor - Construction
- *C. R. Brewer, Assistant Mechanical Section Supervisor - Construction
- *L. Glenn, Quality Concerns Manager

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

Other Organizations

- *D. L. Kinnsch, Project Field Engineer, Bechtel Power Company (BPC)
- *D. W. Strohman, Project Quality Assurance Engineer, BPC
- *S. Pietrzyic, Assistant Project Field Engineer, BPC
- K. W. Caruso, Welding Engineer, BPC
- *D. Wieland, Site Manager, Westinghouse Electric Corp.
- *C. R. Smaney, Resident Project Manager, Westinghouse Electric Corp.
- J. R. Steele, QA Manager, Pullman Power Products, (PPP)
- *T. C. Clark, Assistant QA Manager, PPP
- D. Hayes, QA - Welding Engineer, PPP

NRC Resident Inspectors

- *J. F. Rogge, Senior Resident Inspector
- *R. Schepens, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 19, 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, 425/85-14-01 "Clarification of Liquid Penetrant Inspection Procedure," paragraph 6.

(Open) Violation 424, 425/85-14-02 "Failure To Follow Procedure For Control Of Welding Consumables", paragraph 7.b.(4).

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. (Open) Unresolved Item 424, 425/84-17-02, Visual Acceptance Criteria. This item concerns deviations of visual acceptance criteria from the American Welding Society D1.1 Structural Welding Code (AWS D1.1-1975). Appendix VC, Revs. 0 thru 8, to Bechtel Specification X4AJ01, Revision 12, includes several requirements for visual acceptance of weldments on Seismic 1 steel structures and supports which are less stringent than those imposed by AWS D1.1-1975.

The licensee provided proposed engineering justification for all deviations during an earlier inspection (Report No. 50-424, 425/84-36). The proposed justification (Log: PFE-3730) had been reviewed and additional concerns were identified to cognizant licensee personnel.

Additional Bechtel-sponsored clarification and engineering justification (File: X4A201; Logs: BS5141, BG33246, and PFE-4883) were reviewed during an early 1985 inspection (Report No. 50-424, 425/85-03) and the licensee was informed that engineering justification and clarification were sufficient to resolve all concerns except those regarding exclusion of porosity requirements, (now Deviation 424, 425/85-08-01) and provided that adequate clarification could be obtained regarding the 3/32" undercut acceptance criteria incorporated in Specification No. X2AP01, Division C5, Section No. C5.1, Revision 4, paragraph C.5.1.5.B. versus the engineering justification of 1/16" undercut for Category A welds included in PFE-3730.

The inspector met with cognizant licensee and BPC personnel to discuss a general action plan in response to Unresolved Item 424, 425/84-17-02 and Deviation 424, 425/85-08-01. The inspector was informed that BPC would provide the following:

- ° A schedule for provision of justification or resolution of any deviations of AWS Code requirements which may have existed in specifications with visual acceptance criteria used prior to adoption of Appendix VC.
- ° Modification of Appendix VC so as to address cluster porosity requirements for Category B welds. (Revision 9, dated January 23, 1985 incorporates porosity requirements but does not address clustered porosity).
- ° Requirements for statistical sampling of Category B welds accepted prior to adoption of adequate porosity requirements (including cluster porosity requirements as noted above).
- ° Justification or other corrective actions for welds inspected under specifications allowing 3/32" undercut.

The inspector informed the licensee that this item would remain open pending completion of actions noted above.

- b. (Closed) Violation 424, 425/84-30-02 "Failure to Follow Nonconformance Procedure". Georgia Power Company's (GPC) supplementary letter of response dated February 26, 1985, has been reviewed and determined to be acceptable by Region II. The inspector examined the corrective actions as stated in the letter of 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) Unresolved Item 424, 425/84-30-03, "Failure to Adequately Control Welding". This item concerned adequacy of welding quality data for Unit 1 containment pipe rack welds B1 to B2 on rack R0003 and P119 to B3 on rack R0001. The inspector reviewed the quality data in question to verify that the fit-up for the B1 to B2 weld on rack R0003 was completed on February 1, 1984, by welder RZ1 and that E7018 electrodes from control/lot JJ099 were used to complete the P119 to B3 weld on rack R0001. This item is considered closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection (92706)

a. Construction Progress (Units 1 and 2)

The inspector conducted a general inspection of the Units 1 and 2 containments and the reactor auxiliary building to observe construction

progress and construction activities such as welding, material handling and control, housekeeping and storage.

b. Code Pipe Bending

The inspector observed the bending of Code Class 2, 1" diameter schedule 160 carbon steel (SA 106 - Grade B) piping at the Pullman Power Products (PPP) fabrication shop for the following 5D-45° bends.

<u>ISO</u>	<u>Between Welds</u>
1K5-1301-002-01 R/10	106-W-02A and 106-W-102
1K5-1301-002-01 R/10	105-W-02B and 105-W-01
1K5-1301-002-01 R/10	106-W-02B and 106-W-101
1K5-1301-002-01 R/10	105-W-02C and 105-W-102
1K5-1301-001-01 R/13	107-W-02D and 107-W-02I
1K5-1301-001-01 R/13	104-W-02B and 104-W-02C
1K5-1301-001-01 R/13	104-W-02D and 104-W-02E
1K5-1301-001-01 R/13	107-W-02B and 107-W-02C

The inspector verified the qualification of inspection personnel and observed the transfer of marking, inspection for ovality and wrinkles, and documentation in conformance to (PPP) procedure IX-16 "Cold Bending of 2" N. P. S. and smaller, nuclear and B31.1 Pipe: (dated November 30, 1983).

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

6. Liquid Penetrant Examination Procedure Review (57060)

The below listed PPP liquid penetrant Nondestructive Examination (NDE) procedure was reviewed by the inspector to ascertain whether essential examination variables are defined and whether these variables are controlled within the limits specified by the applicable code and other specification requirements.

<u>Procedure No.</u>	<u>Title</u>	<u>Latest Rev. Date</u>
PPP IX-PT-1-W77	Penetrant Examination Procedure to ASME Section III Winter 1977 Addenda	12/3/84

In addition to the review above, the procedure was reviewed in the area of technical content relative to:

- ° Specified Test Method Requirements
- ° Brand names and specific types (number or letter designation if available) of penetrant, penetrant remover, emulsifier and developer.

- ° Penetrant materials used for nickel-base alloys are required by procedure to be analyzed for sulfur using the method prescribed by the applicable code.
- ° Penetrant materials used for the examination of austenitic stainless steel are required by procedure to be analyzed for total halogens using the method prescribed in the applicable code.
- ° Methods for acceptable pre-examination of surface preparation are specified and consistent with applicable codes. The area to be cleaned is consistent with applicable code requirements. The cleanliness acceptance requirements are consistent with applicable code requirements. The surface to be examined is consistent with applicable code requirements.
- ° Establishing a minimum drying time following surface cleaning
- ° Method of penetrant application and the penetration dwell time are specified and that the dwell time is consistent with the penetrant manufacturer's recommendation.
- ° Examination surface temperature is specified and is consistent with the applicable code.
- ° Methods for removal of solvent removable penetrant are specified.
- ° Method and time of surface drying prior to developing are specified.
- ° Type of developer to be used, method of developer application and the time interval between penetrant removal and developer application are specified.
- ° Examination of technique and the permitted time interval during which the "final interpretation" are performed within the range of 7-30 minutes after developer application.
- ° Minimum light intensity at the inspection site is prescribed.
- ° Technique for evaluation of indications is specified, acceptance standards are included and these are consistent with applicable code and specification requirements.
- ° Reporting requirements are specified.
- ° Procedure requalification is required when changes are encountered in any of the following parameters: surface treatments which may alter the condition of surface openings; any change in pre-cleaning materials or methods; any change in the type of penetrant materials (including developer, etc.) or in-processing technique; and any change in surface examination temperature limits.

During the above review, the inspector noted modifications to Section 11.0, "Acceptance Standards," in response to previously stated NRC concerns (Unresolved Item 424, 425/84-36-07). Section 11.0 now requires notification of welding QC inspectors to ensure that welds previously accepted by visual inspection are reinspected whenever their final configuration is changed due to grinding at the request of the NDE examiner. However, the inspector noted need for clarification regarding initiation of repair when grinding has caused the weld to become rejectable.

The inspector also noted need for clarification regarding the minimum light intensity at the inspection site since paragraph 9.4 requires "adequate illumination" and this term is not defined in the procedure. The inspector informed the licensee that this item will be identified as Inspector Follow-up Item 424, 425/85-14-01, "Clarification of Liquid Penetrant Inspection Procedure."

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

7. Reactor Coolant Pressure Boundary Piping (Units 1 and 2)

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

a. Review of Nonwelding Quality Records (49055)

The inspector selected various reactor coolant 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/QC 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 releases; site receipt inspections; storage; installation; vendor nonconformance reports.

<u>Item</u>	<u>Heat/Control No.</u>
½", 1500 #, S.W. globe valve	S/N B5322
½", sched. 160, pipe	466919

½", x 3/8", sched. 160, concentric swage fitting	K3534
1", sched. 160, pipe	467386
2", x 2" x 1", reducing tee	D8480
2", sched. 160, 90° ell	PAUN
2" sched 160 pipe	466978

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

b. Welding Activities

(1) Observation of Work (55173) (Units 1 and 2)

The inspector observed in-process welding activities of reactor coolant piping field welds inside of containment 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 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, qualifications of inspection personnel, and weld history records.

<u>ISO</u>	<u>Welds</u>	<u>Size</u>	<u>Status</u>
2X4DL4A17 R/7	008-W-02	31"	Fitup
2X4DL4A17 R/7	008-W-03	31"	Fitup
2X4DL4A17 R/7	008-W-04	31"	Fitup
2X4DL4A17 R/7	006-W-02	31"	Fitup
2X4DL4A17 R/7	006-W-03	31"	Fitup
2X4DL4A17 R/7	006-W-04	31"	Fitup
1K4-1201-027-01 R/5	027-W-104	2"	Welding Root
1K4-1201-199-01 R/3	199-W-104	½"	Final Pass
1K4-1201-199-01 R/3	199-W-102	½"	Final Pass
1K4-1201-199-01 R/3	200-W-102	½"	Final Pass
1K4-1201-022-02 R/5	033-W-108	1"	Root & Fill Pass

The following inspector qualification status records and "QA/QC Inspector Qualification/Certification" records were reviewed

relative to inspection of the weld joints listed above in paragraph 8.b.(1).

<u>Inspector</u>	<u>Type of Certification</u>
JMA	VT-II
MSG	VT-II
PEM	VT-II
PKM	VT-II

(2) Welding Procedure Specifications and Quality Assurance Procedures (55171) (Units 1 & 2)

- (a) Welding Procedure Specifications (WPS) applicable to the weld joints listed in paragraphs 7.b.(1) and 8.b.(1) were selected for review and comparison with the ASME Code as follows:

<u>WPS</u>	<u>Process</u> <u>1/ 2/</u>	<u>Procedure</u> <u>Qualification</u> <u>PQR Report</u>
(W)32-111/1-8-12 (3/9/83)	GTAW/SMAW	104A, 110, 114, 120, 133
24-111/1-8-KI-12 (9/16/83)	GTAW/SMAW	133, 120, 110
29-111/1-8-OB-1 (9/7/83)	GTAW	125, 132, 133
38-111/1-8-KI-1 (9/18/80) (PCN1)	GTAW	120, 121
250-111/1-8-KI-A1 (11/29/83)	GTAW	126, 139

General Welding Standard GWS-111/1 (12/14/84)

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 variables were noted. WPSs are qualified

in accordance with ASME Section IX, the latest edition and addenda at the time of qualification.

Previous to the above inspection, the inspector reviewed NRC concerns documented within inspection reports 424, 425/85-11 regarding need for clarification of welding procedure specifications (W)32-111/1-8-12, 250-111/1-8-KI-A1, and 24-111/1-8-KI-12 (Inspector Followup Item 424, 425/85-11-01). Cognizant licensee personnel informed the inspector that planned revisions in response to NRC concerns were not completed.

- (b) The below listed documents were reviewed to ascertain whether the welding program for reactor coolant piping has been approved by the licensee and whether adequate plant and procedures had been established to assure that welding would be controlled and accomplished consistent with commitments and regulatory requirements.

Documents

- PPP "Nuclear Quality Assurance Program Manual, ASME, Section III, Division I (8/29/84)
 Section I, "Organization"
 Section IX, "Control of Processes"
 Section V, "Instructions, Procedures, and Drawings"
- PPP XV-2, "Procedure for Handling Nonconformances (Field)" (7/11/84)
- PPP VIII-3, "Control of Welding Materials (Field)" (4/17/84) (PCN 3)
- PPP X-18, "Field Welding Inspection (7/18/84) (PCN 1)
- PPP XV-4, "Hold Tag Usage" (1/9/85)
- PPP VII-2, "Material Control (10/3/84)
- PPP IX-19, "Requirements for Alignment and Fitup" (8/24/84)
- PPP VI-5, "Control of Process Sheets and Weld Rod Requisition (3/22/84) (PCN 1)
- PPP IX-64, "Control of Piping Spool Closures" (8/29/84)
- PPP X-11, "Visual Examination" (5/31/82)

(3) Welder Qualification (55177)

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 paragraphs 7.b.(1) and 8.b.(1).

<u>Welder Symbol</u>	<u>WPS</u>
HM-2	38-111/1-8-KI-1 and 29-111/1-8-OB-1
XB-3	29-111/1-8-OB-1
CY-1	38-111/1-8-KI-1 and 29-111/1-8-OB-1
TF	29-111/1-8-OB-1
LB-1	29-111/1-8-OB-1
GF-2	29-111/1-8-OB-1

The inspector observed completion of qualification test weldments and performance of required mechanical bend testing for conformance with applicable code requirements for the following welder qualifications. Personnel identification was verified.

<u>Identification No.</u>	<u>WPS</u>	<u>Type Test</u>
9129	IT8-111/1-1-BR-2	6G pipe
6161	19-111/1-1-BR-5	6G pipe
1015	24-111/1-8-KI-12	6G pipe
5741	IT14-111/1-1-KI-1	6G pipe
4749	24-111/1-8-KI-12	6G pipe

(4) Welding Filler Material Control (55172)

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 areas were examined:

- Purchasing, receiving, storing, and distributing and handling procedures, material identification; and inspection of welding material issuing stations.
- Welding material purchasing and receiving records for the following material applicable to the weld joints listed in paragraphs 7.b.(1) and 8.b.(1) and welder qualifications

listed in paragraph 7.b.(3) were reviewed for conformance with applicable procedures and code requirements.

<u>Type</u>	<u>Size</u>	<u>Heat, Lot, Batch/No.</u>
E7018	3/32"	KK037
E7018	1/8"	GG069
E71T-1	0.035"	2635420
ER309L	3/32"	467674
ER309L-16	3/32"	GG093
ER308L	3/32"	05394
ER308L	1/8"	05394
K-Insert (Ms-1)	1/8" x 5/32"	4250B131
K-Insert (Type 308L)	1/8" x 5/32"	4894T308L

During the above inspection, the inspector observed that stationary holding oven temperatures were not recorded for the date of April 14, 1985, for ovens located within the "Doublewide" welding materials distribution center (WMDC). The inspector noted that this was a failure to follow the requirements of paragraph 7.2.1.G of PPP procedure VIII-3 "Control of Welding Materials (Field)". After investigation, cognizant licensee personnel informed the inspector that the omission had occurred on April 11, 1985, but remained unnoticed due to failure of QA Engineers involved to crosscheck actual date versus log entry date. The inspector informed that this matter was considered a lack of conformance to 10 CFR 50, Appendix B, Criterion V, as implemented by PPP Procedure VIII-3 and would be identified as Violation 424, 425/85-14-02, "Failure to Follow Procedure for Control of Welding Consumables".

Within the areas inspected, one violation as noted above was identified. No deviations were identified.

8. Safety-Related Piping (Units 1 and 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/QC 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

<u>Item</u>	<u>Heat/Control No.</u>	<u>System</u>
1", sched. 160, pipe	E3251	Main steam
1½", sched. 160 45°, ell	D8506	Safety injection
1½", sched. 160, pipe	759778	Safety injection
¾", angle globe valve	S/N BS785	Safety injection
¾", angle globe valve	S/N BS798	Safety injection
¾", sched. 160, pipe	467386	Safety injection
1½", sched. 160, 90°ell	E9150	Safety injection
2", sched. 160, 90°ell	JWLR	Safety injection
2", sched. 160, pipe	465971NCR264	Safety injection
2", sched. 160, pipe	466976	Safety injection

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

b. Welding Activities

(1) Observation of Work (55183) (Unit 1)

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

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

<u>ISO</u>	<u>Weld</u>	<u>Size</u>	<u>Status</u>
1K4-1204-078-02 R/7	224-W-131	1½"	Fit-up & welding root
1K4-1204-079-02 R/9	079-W-108	¾"	Fit-up & final pass

1K4-1204-079-02 R/9	079-W-113	3/4"	Fit-up & final pass
1K4-1204-079-02 R/9	245-W-106	1 1/2"	Fit-up & welding root
1K4-1204-197-02 R/7	022-W-101B	2"	Fill passes
1K4-1204-032-01 R/10	036-W-107	2"	Fit-up & welding root

The review of inspector qualification status records and "QA/QC Inspector Qualification/Certification" records relative to inspection of the weld joints listed above is documented in paragraph 7.b.(1).

- (2) Welding Procedure Specifications and Quality Assurance Procedures (55181B) (Units 1 and 2)

The procedure review documented in paragraph 7.b.(2) for reactor coolant piping is also applicable to safety-related piping.

- (3) Welder Qualification (55187B) (Unit 1)

The inspector reviewed PPP's program for qualification of welders. The applicable procedure is II-8, "Welder Performance Procedure" (12/14/84).

The following specific areas were examined:

- Procedures for qualification of welders
- Procedures for maintaining continuity or status records
- Review of welder qualification status records and "Records of Performance Qualification Tests," relative to the weld joints listed in paragraph 8.b.(1) above is documented in paragraph 7.b.(3).
- In-process welder qualification tests which were observed are listed in paragraph 7.b.(3).

- (4) Welding Material Control (55182B) (Units 1 and 2)

The welding material control inspection documented in paragraph 7.b.(4) for reactor coolant piping also applies to safety-related piping.

Within the areas inspected, one violation, as reported in paragraph 7.b.(4), was identified. No deviations were identified.

9. Licensee Identified Items (92700)

Prior to the inspection, the licensee identified the following items under 10 CFR 50.55(e):

a. (Closed) Item 424, 425/CDR 83-42, "Defective Weld Wire"

On June 9, 1983, the licensee notified Region II of a potential 50.55(e) item concerning hot cracks on welder qualification test specimens welded with type 309L weld wire. The final report was submitted on December 19, 1983. The report has been reviewed and determined to be acceptable by Region II. The inspector had previously reviewed inspection report 424, 425/84-18, paragraph 6, relative to ultrasonic examinations of Unit 1 containment penetrations of butt welds using the subject 309L filler metal to join carbon steel to 304 stainless steel material. No evidence of cracking was identified. The inspector reviewed supporting documentation of inspection of other critical joints welded with the subject 309L material as well as the BPC metallurgical analysis on this issue.

This item is considered closed.

b. (Closed) Item 424, 425/CDR 81-18, "Containment Liner Penetrations - Unit 1"

On March 26, 1981, the licensee notified Region II of a potential 50.55(e) item concerning possible defects on Unit 1 containment penetration welds. The final report was submitted on August 7, 1981. The report has been reviewed and determined to be acceptable by Region II. The inspector reviewed the supporting analyses which indicated problems associated with weld cleanup and other cosmetic conditions which should have been eliminated prior to the magnetic testing involved. The inspector also reviewed documentation regarding completion of necessary rework. This item is considered closed.

c. (Closed) Item 424, 425/CDR 84-56, "Containment Penetration Welds"

On February 9, 1984, the licensee notified Region II of a 50.55(e) item concerning defects in containment penetration welds. The final report was submitted on March 7, 1984. The report has been reviewed and determined to be acceptable by Region II. The deficient welds were discovered during review of penetration weld radiographs to ensure that no hot cracks had resulted from use of the 309L weld wire reported in paragraph 9a. The deficient welds were repaired and reinspected by the licensee. As reported in paragraph 9a, no evidence of remaining defects was identified during later independent verification by NRC (Report Nos. 424, 425/84-18). This item is considered closed.

10. Previously Identified Inspector Followup Items

- (Closed) Inspector Followup Item 424, 425/85-03-02, "Adequacy of Temperature Marking Crayons"

This item concerned adequacy of temperature marking crayons. Welding material issue stations are provided with both Markal thermomelt and Tempilstick temperature indicating crayons. The crayons are issued indiscriminately for use on stainless steel as well as carbon steel weldments. Further, in conformance to GPC Procedure GDT-14, Rev. 6, the crayons are used as the reference standard to ensure adequate oven temperature before issuing electrodes requiring moisture control. The inspector reviewed certification information from Tempilstick and Markal which verified control of inorganic halogen content and low melting-point metals as well as assurance that specified melt temperature was accurately indicated on several lots of marking crayons currently being issued for production work.

This item is considered closed.