



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

Report No. 50-395/80-20

Licensee: South Carolina Electric and Gas Company
Columbia, SC 29218

Facility Name: Virgil C. Summer

Docket No. 50-395

License No. CPPR-94

Inspection at V. C. Summer Site near Columbia, South Carolina

Inspector: *A. R. Herdt*
W. P. Kleinsorge

9/3/80
Date Signed

Approved by: *A. R. Herdt*
A. R. Herdt, Section Chief, RCES Branch

9/3/80
Date Signed

SUMMARY

Inspection on August 5-8, 1980

Areas Inspected

This routine, unannounced inspection involved 30 inspector-hours onsite in the areas of Licensee Action on previous inspection findings, reactor pressure boundary piping - review quality records, safety related structures-observation of work and work activities, licensee identified items (50.55(e)) and a concern regarding pipe weld fitup.

Results

Of the five areas inspected, no items of noncompliance or deviations are identified in four areas; one item of noncompliance was found in one area (Infraction - Failure to follow fit-up procedure - Paragraph 9)

DETAILS

1. Persons Contacted

Licensee Employees

- *O. W. Dixon, GM, PE, QC & Construction
- *A. R. Koon, Technical Services Coordinator
- *A. A. Smith, Site QA Coordinator
- *D. A. Nauman, Group Manager QA
- *M. W. Eddins, General Superintendent-Welding
- *H. Radin, Nuclear Engineer
- *D. R. Moore, Manager, QA
- *J. Connelly, Start up
- *C. C. Turkett, QC Supervisor
- J. L. Gypen, QA Surveillance Specialist
- T. A. McAlister, QA Surveillance Specialist

Other Organizations

- W. L. West, Project Quality Manager Daniel Construction
Company (DCC)
- J. R. Fletcher, Project QA Engineer DCC

NRC Resident Inspectors

- J. L. Skolds
- J. M. Heffley

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 8, 1980 with those persons indicated in Paragraph 1 above. The concern and the associated item of noncompliance described in Paragraph 9 were discussed in detail.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 395/80-12-01: "Possible Incorrect pipe weld Radiographed After Repair". This item concerns the possibility that a weld increment other than (3 to 4) of weld W7, on spool piece 1-SI-16-02, was radiographed after a repair to weld W7. The inspector reviewed the original W7 radiograph, the radiograph of W7 repair and a reshot radiograph of W7 repair. The inspector is satisfied all three sets of radiographs represent the repaired area W7. This item is considered closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

The inspector conducted a general inspection of the reactor, auxiliary and intermediate buildings to observe construction progress and construction activities such as welding, nondestructive examination, material handling and control, housekeeping and storage.

There were no items of noncompliance or deviations in this area of the inspection.

6. Reactor Coolant Pressure Boundary Piping - Review of Quality Records

The inspector selected various reactor coolant pressure boundary piping components (e.g., fittings and welded-in components) for review of pertinent records to determine conformance with procurement, storage and installation specifications and QA/QC site procedures. Applicable requirements are contained in the below listed documents.

Procedure No.	Title
DCC WP-VII-09, R10 DCC AP VIII-03, R9	"Installation of Piping" "Cleaning, Handling and Preservation"
SCE&G 3.2.0, R-16	"Storage handling and Issuing"
DCC QCP-VII-02, R13	"Fabrication and Installation of Packet Inspection"
DCC WP-VII-02, R-13	"Preparation and Processing of Fabrication and Installation Packets"
ASME B & PV Code	Section III (S73)

- a. 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; NSSS quality releases; site receipt inspection; storage; installation; vendor nonconformance reports.

Item	System
Spool Piece RH-09-01	Residual Heat Removal
Spool Piece RH-09-02	Residual Heat Removal

- b. The inspector reviewed the records of recent QA audits associated with reactor coolant pressure boundary piping in order to determine that; scope and frequency of audits are as specified, identified deficiencies are corrected in a timely manner and corrective action is adequate.

Audits Reviewed

1-144 3-15 4-35 II-2-4 II-14-80

Within the areas examined, there were no items of noncompliance or deviations identified.

7. Safety Related Structures (Welding) - Observation of Work and Work Activities

The inspector observed field welding activities associated with safety related structures and supports outside containment during various stages of weld completion. Observations were made in order to determine whether the requirements of applicable specifications, standards, work and/or inspection procedures are being met for the activities involved and in the following stages of weld completion:

- a. The inspector examined weld joints where welding is in progress to determine whether weld identification, weld procedures, welder qualification, weld material, defect removal (if applicable), specified NDE and period checks of welding are in conformance with existing requirements.

Packet No.	ISO	Structure
MYDSP-225	-	Lateral Support for Sodium Hydroxide Storage Tank
WGH-1146	WG-01	Pipe Support
CCH-1296	DE-CC-75	Pipe Support

- b. Observation of weld material control included; identification, segregation, oven temperatures, issue slips and control of unused material at issue stations and work areas.
- c. During observation of welding activities there did appear to be a sufficient number of qualified inspection personnel at the work site.

Within the areas examined, there were no items of noncompliance or deviations identified.

8. Licensee Identified Items (50.55(e))

- a. New 50.55(e) Items

Prior to the inspection the Licensee identified the following item as a potential reportable item.

Deficiencies in full penetration welds in four hangers lugs and shear lugs attached to Class 1 piping have been detected by X-ray of the piping. Deficient welds were made by construction welders on site. Licensee will correct the four defective lug welds examine, other lugs attached to Class 1 and Class 2 piping, and reevaluate the welding proceeding. The inspector discussed the above item with the licensee and stated that this item will be inspected during subsequent inspections. This item for the record is identified as Licensee Identified Item No 395/80-20-02: "Piping Attachment Welds".

b. Previous 50.55(e) Items

(Open) Item 395/79-05-02: "ASME Code Radiography". This item concerns technique and potential relevant defects in ASME code radiography of welds. The licensee has reevaluated the radiographs for 1799 weld joints. There are approximately 200 weld radiographs left to reevaluate. The licensee's estimated completion date is January 1, 1981, this item remains open.

(Open) Item 395/80-05-07: "Inadequate Drawings for Pipe Branch Connections." The item concerns a deficiency in Daniel Construction Company and Southwest Fabricating and Welding Company drawings. The licensee has inspected all the branch connection fillet welds in 1702 packets. There are 140 packets left to inspect. The licensee's estimated completion date is October 1, 1980. This item remains open.

(Open) Item 395/80-10-05: "Potential stress corrosion cracking of control rod guide support pins". This item was discussed with the licensee but the site is still waiting for information. This item remains open.

9. Allegation Concern Regarding Pipe Weld Fitup

The Region II office was contacted by an individual who expressed the following concern in substance: A specific weld in a 30-inch carbon steel pipe in the Component Cooling System was improperly welded in 1979 in that a quality control inspector approved a fit-up that was approximately 3/8 inch off at two locations on a Hi-Lo check. The inspector reviewed all Isometric drawings for the Component Cooling System (CCS) and determined that there are no 30 inch diameter pipe welds in that system. From other information provided by the individual, the inspector located a 24 inch diameter ASME Section III Class 3 Carbon steel welded butt joint in the CCS located between a 90 elbow and a Tee fitting approximately 8 to 12 feet above the 412 elevation, that was welded during the period June 28 to July 4, 1979 by a welder identified by the individual. The inspector discussed the above with one of the DCC QC inspectors of record for field weld 14 (FW-14) on ISO 25. The DCC inspector stated that a fit-up acceptable to the internal mismatch (Hi-Lo) requirements, of GAI Drawing C-301-002, "Weld Details for Connection of Valves, Equipment and Field Piping." ASME Section III, could not be accomplished for FW-14. The DCC inspector further

stated that the fit-up and the root inspection were accepted based on ID inspection after ID welding and grinding, with the concurrence of the Authorized Inspector. This inspector could not substantiate the amount of mismatch existing at fit up in excess of that permitted by C-301-002. Additionally the DCC inspector stated that no alternate fit-up acceptance criteria was provided from engineering for mismatch. DCC Construction Procedure WP-VII-09 Revision 10, "Installation of Piping", paragraph 3.2.5. requires pipe weld end preparation and fit up to conform to GAI Drawing C-301-002. The DCC inspectors accepted a fit up that did not meet the specified acceptance criteria, nor was the variation from the specified acceptance criteria properly authorized. Failure to accomplish activities affecting quality in accordance with procedure is in noncompliance with 10 CFR 50, Appendix B, Criterion V. This is an infraction and is assigned item No 395/80-20-01: "Failure to Follow Fit Up Procedure". In view of the identified noncompliance there appears to be basis for the expressed concern.