



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

NOV 30 1979

Report Nos. 50-327/79-68 and 50-328/79-32

Licensee: Tennessee Valley Authority
 500A Chestnut Street
 Chattanooga, Tennessee 37401

Facility Name: Sequoyah Nuclear Plant, Units 1 and 2

Docket Nos. 50-327 and 50-328

License Nos. CPPR-72 and CPPR-73

Inspection at Sequoyah Nuclear Plant near Chattanooga, Tennessee

Inspector: *A. R. Herdt* 11/29/79
 P. K. Van Docrn Date Signed

Approved by: *A. R. Herdt* 11/29/79
 A. R. Herdt, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on November 14-16, 1979

Areas Inspected

This routine, unannounced inspection involved 21 inspector-hours on-site in the areas of safety-related piping-handling, storage and welding activities (Unit 2); safety-related piping-review of weld radiographs (Unit 2); safety-related structures welding-review of quality records (Unit 2); followup of a licensee identified item (50.55(e)) concerning containment spray heat exchanger inadequate design (Units 1 and 2); and followup of IE Bulletin 79-13-"Cracking in Feedwater System Piping" (Unit 1).

Results

Of the four areas inspected, no items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Licensee Employees

- *G. G. Stack, Project Manager, Construction
- *J. E. Wilkins, Construction Engineer
 - L. W. Jones, Supervisor, Welding and Mechanical Inspection Unit
- *R. W. Farrell, Supervisor, QC Records Unit
- *W. C. Hatmaker, Welding Inspection Unit Group Leader
 - D. Goetchens, Metallurgist, Office of Power

Other licensee employees contacted during this inspection included six construction craftsmen, four inspectors and three records personnel.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on November 16, 1979 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort (Unit 2)

- a. The inspector observed field welding of safety-related Class B piping at various stages of weld completion to determine if Code and procedure requirements were being met. The applicable Code for piping installation is the ANSI Standard B31.7, 1969 edition and the 1970 addenda. The following welds were observed:

<u>Weld No.</u>	<u>Size</u>	<u>Stage of Completion Observed</u>
2CX00187	3"x0.438"	Final Welded
2CX00006	8"x0.322"	Repair Welding
2CX00096	4"x0.237"	Fitup, Root and Intermediate Welding
2CX00096A	4"x.237"	Fitup and Intermediate Welding
2CM00182.02	3"x0.120"	Fitup and Root Welding
2CM00182A2	3"x0.120"	Fitup

- b. The inspector reviewed radiographic film for six Class B welds to determine if Code and procedure requirements were being met. The

applicable Code is identified in paragraph 5.a. Film was reviewed for Weld Nos. 2CX102X1R3, 2CX103X1, 2AF84BX2, 2SI115X1R2, 2CS163AX1 and 2CX12D.

No items of noncompliance or deviations were identified.

6. Licensee Identified Item (50.55(e)) (Units 1 and 2)

(Open) Item 50-327/79-63-01 and 50-328/79-31-01: Containment Spray Heat Exchanger Inadequate Design. This item was initially reported to the NRC Resident Inspector on October 25, 1979. Damage was received to the two Unit 1 containment spray heat exchanger tube bundles. The inspector reviewed actions taken to date which include the following: Eddy current inspection has shown tube thinning in approximately six percent of the tubes in the B heat exchanger and one percent of the tubes in the A heat exchanger. Tube sections were removed and analyzed showing the damage to be caused by excess vibration. TVA has contracted Foster Wheeler Energy Corporation for design engineering assistance. TVA intends to plug the damaged tubes and stake the tubes between existing supports. Procedures to accomplish this were not yet available at the time of this inspection. It has been determined that the wet bulb temperature delineated in the Technical Specifications (78° Fahrenheit) can be maintained with six percent of the tubes plugged. Since the Unit 2 heat exchangers are of the same design, TVA has proposed to stake these tubes also. TVA is reviewing records to determine whether if any other TVA site have heat exchangers from the same manufacturer (Industrial Process Engineering, Newark, New Jersey).

No items of noncompliance or deviations were identified.

7. IE Bulletin (IEB) (Unit 1)

(Open) IEB 79-13, Cracking in Feedwater System Piping. The inspector reviewed documentation of visual inspection, magnetic particle inspection, grinding and radiography of area 2-3 of weld IFD-131-Nozzle. Initial radiography (see NRC report number 50-327/79-61) had disclosed indications thought to be on the pipe surface. This was verified by TVA inspectors and appropriately documented on the radiographic report. Additional actions taken included grinding of the surface and subsequent visual and magnetic particle inspection in order to prevent these irregularities from causing further confusion.

No items of noncompliance or deviations were identified.

8. Safety-Related Piping-Observation of Work and Work Activities (Unit 2)

The inspector observed work activities for safety-related piping for conformance to inspection/work procedures, installation specifications/plans and record keeping requirements. The applicable Code is delineated in paragraph 5.a. The inspection observed handling of piping for fitup of Weld Numbers 2CM00182A2, 2CM00182.02, 2CX00096 and 2CX00096A. The inspector also observed storage of piping in the designated storage area east of Unit 2 containment building.

1761 261

No items of noncompliance or deviations were identified.

9. Safety-Related Structures (Welding)-Review of Quality Records (Unit 2)

The inspector reviewed welding quality records for Class 1 supports to determine if Code and procedure requirements were being met. The applicable Code is AWS D1.1, Rev. 2-74. The inspector reviewed weld history records which included visual inspection, fitup inspection and nondestructive examination (as applicable). Welder and inspector qualification records were also reviewed. Records were reviewed for Weld Numbers 2HC-0010DD, 2HC-0010L, 2HC-0020C, 2HC-0020EE, 2HC-0030BB, 2HC-0030E, 2HC-00043H and 2HC-00140A.

No items of noncompliance or deviations were identified.