



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

Report Nos.: 50-327/85-03 and 50-328/85-03

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

Docket Nos.: 50-327 and 50-328

License Nos.: DPR-77 and DPR-79

Facility Name: Sequoyah 1 and 2

Inspection Conducted: January 8-11, 1985

Inspector: J. L. Coley 2-1-85
Date Signed

Approved by: J. J. Blake 2/4/85
Date Signed
J. J. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection involved 28 inspector-hours on site in the areas of follow-up on unresolved items, inservice inspection data review and evaluation for Unit 2 first inspection period examinations and IE Bulletin 80-08.

Results: Of the three areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Licensee Employees Contacted

- H. Abercrombie, Site Director Sequoyah Nuclear Plant (SNP)
- *P. Wallace, Plant Manager, Operations, SNP
- J. Nickols, Project Manager, Construction, SNP
- *R. Alsup, Compliance Supervisor, SNP
- *F. Wells, Inservice Inspection Supervisor, Division of Nuclear Services (DNS)
- *G. Wade, Inservice Inspection Supervisor, DNS
- *E. Crane, Mechanical Engineer, DNS
- *G. Belew, Supervisor, Inservice Inspection Programs Section, DNS
- *S. Miller, Engineering Aide, TVA Construction

Other licensee employees contacted included technicians, security force members and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 11, 1985, with those persons indicated in paragraph 1 above. "The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during this inspection." On January 17, 1985, the licensee was notified by Telecon (J. L. Coley/Glenn Duggen and Jerry Wills) that the following unresolved item would be addressed in the inspector's report. Unresolved Item 50-327, 328/85-03-01, Review of TVA's redefined ISI program boundaries.

3. Licensee Action on Previous Enforcement Matters

- a. (Closed) Unresolved Item 50-327/84-26-01, Missing radiographs for Unit 1 Main Steam Containment Penetration Welds 1-12B, 2, 4, 5 and 6. The licensee had recovered the missing radiographs. The inspector reviewed the radiographs of the film segments of initial concern and has no further questions concerning the acceptability of these welds.
- b. (Open) Unresolved Item 50-328/84-26-01, No program credit will be given for examination of weld RC-180-17 due to attenuation losses not considered during the examination of this weld. The licensee had Southwest Research Institute (SwRI) re-examine this weld, compensating for the energy loss as a result of material attenuation. SwRI, however, has not forwarded to TVA the completed data package for the Cycle 2 examinations. This item will remain open until the completed data can be reviewed for the above weld.

- c. (Open) Unresolved Item 327, 328/82-22-01, Determine welding activities of unqualified welders. This item had been closed by mistake in inspection report 50-327/84-20 and 50-328/84-21. This item dealt with a workers concern and NRC had requested additional information from the licensee in order to determine the welding activities of personnel involved in this concern. The inspector reopened this item during the entrance interview with plant management on January 8, 1985 (See d. below for final closure of this item).
- d. (Closed) Unresolved Item 327, 328/82-22-01, Determine welding activities of unqualified welders. In September of 1982, Region II had investigated a workers concern that, unqualified welders may have performed welding to welding procedures which their qualification records or maintenance of qualification appeared unsatisfactory. The inspector discovered at that time that the individuals in question had been disqualified until records could be found or their active certification could be verified by other construction records. However, the inspector found that no attempt was being made to determine the welding activities of the personnel in question or if these individuals represented all of the individuals on the printout of on-site welders that may have discrepancies in their qualification records. TVA's construction engineer for the Sequoyah site was requested to furnish the inspector the following information:
- (1) Audit the OS-6 printout and determine how many on-site welders should be disqualified as a result of this audit.
 - (2) Determine the welding activities of on-site welders who had qualification records missing or incomplete and were on the OS-6 printout as qualified. If combination process welds are indicated on the readout, determine if the welder welded both processes or a single process.
 - (3) Determine how many of the welds identified above would be considered satisfactory if plate qualifications were used to qualify welders to limited positions of pipe in accordance with table QW-461.7 of Section IX of the ASME Code.

On January 10, 1985, the inspector reviewed the information requested above and made the following determinations:

- (1) Three individuals had discrepancies in their qualification records or maintenance of qualification records.
- (2) Two of the individuals had never made a safety-related pipe weld using the qualification in question. The third individual had made two production safety-related welds; both were made without repairs. (The production welds would have qualified the individual if in fact he had not been qualified.) The inspector reviewed the radiographs for the two production welds made by this individual and found them to be satisfactory.

- (3) The licensee's findings and corrective actions for the three individuals involved consisted of the following:
- (a) One individual had incomplete records for maintenance. This was due to his supervisor failure to maintain his records for the weld process for a period exceeding three months. TVA was able to reconstruct his welding activity in the process by using weld rods issue and return slips and time cards.
 - (b) The second individual had failed to maintain his certification at Sequoyah Nuclear Plant because he had been transfer to Watts Bar for a period exceeding three months. This individual returned to Sequoyah; however, was never reinstated in the welding process.
 - (c) The third individual apparently had been certified because he had an active Welding Qualification card. However, his test records for this process was missing. This individual was recertified satisfactory. This individual had made two production safety-related welds, both were radiographed and found satisfactory.

Within the area examined, no violation or deviation was observed.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 5.a.

5. Inservice Inspection Data Review and Evaluation Unit 2 (73755B)

The inspector reviewed the licensee's completed examination data for the first inspection period, of the first inspection interval for Unit 2. This review was performed to ascertain the following information:

- Whether the nondestructive examination data covers the scope of examinations required during the first inspection period of the first inspection interval as described in the applicable ASME Code, the Technical Specification and the inservice inspection program accepted by the NRC.
- Whether inservice inspection files are complete and the data within the previously established acceptance criteria.
- Whether the licensee's disposition of adverse findings and subsequent re-examination was consistent with regulatory requirements.

In accordance with 10 CFR Part 50.55a(g)(4)(iv), Sequoyah's ISI program for Unit 2 was prepared to meet the requirements of the 1977 Edition, Summer 1978 Addenda, of Section XI of the ASME Boiler and Pressure Vessel Code. Steam Generator Tubing Examination requirements are in accordance with Regulatory Guide 1.83, Rev. 1, and Technical Specification 4.4.5.3. In accordance with 10 CFR Part 50.55a(b)(2), the extent of examination for piping welds Examination Categories B-J and C-F is in accordance with the 1974 Edition, Summer 1975 Addenda of ASME, Section XI (Examination Categories B-J, C-F, and C-G). Extent of examination is defined as criteria for the selection of Class A and Class B components for examination and as criteria for determining which Class B components may be exempt from examination. The extent of examination also specifies the location on the components to be examined (i.e., length of weld).

- a. The inspector compared TVA's program commitments to the ASME Code requirements and reviewed the licensee's examination records or status of completed examinations (SwRI has not forwarded TVA their completed records for the Unit 2, Cycle 2 outage) to insure that all first inspection period examinations had been performed as required. Completed records for the following components were reviewed by the inspector:

<u>Item</u>	<u>Exam Method</u>	<u>Category</u>	<u>Insp. Period Reqs.</u>	<u>Dwg. No.</u>
Rx Closure Head Circ. Weld	UT	B-A	13FT	CHM-2358-A
Rx Closure Head to Flange Weld	UT	B-A	15FT	CHM-2358-A
Rx Nozzle to Vessel Welds	UT	B-D	4	CHM-2343-B
Rx Nozzle to Safe end Welds	UT/PT	B-F	4	CHM-233-B
Rx Closure Studs & Nuts	UT/MT	B-G-1	18	CHM-2341-B
Rx Vessel Interior	VT3	B-N-1	1	
Auxiliary Head	UT/PT	B-F	1	CHM-2337-C
PRZ Circ. Shell to Head Weld	UT	B-B	12FT	CHM-2363-A
PRZ Nozzle to Vessel Inside Radius	UT	B-D	2	CHM-2363-A

PRZ Heater Penetrations	VT-2	B-E	6	MSG-0006-A
S.G. Nozzle to Safe-end Welds	UT/PT	B-F	2	CHM-2363-A
S.G. Pressure Retaining Bolting	VT-1	B-G-2	2	MSG-0002-B
Pressure Retaining Bolting RC System	VT-1	B-G-2	2	ISI-0013-C
Pressure Retaining Bolting SIS System	VT-1	B-G-2	1	ISI-0002-C
Reactor Coolant System Main Loop Piping	VT-1	B-G-2	2	ISI-0013-C
Chemical and Volume Control	PT	B-J	5	ISI-0009-C
Upper Head Injection System Socket Welds - RHR	UT/PT	B-J	11	ISI-0001-C
Support Members - Reactor Coolant System		B-K-1	3	MSG-0013-C
Support Members SIS System		B-K-1	3	MSG-0009-C
Supports - RHR System	VT-3/VT-4	B-K-2	6	MSG-0010C
RC Pumps Press Retaining Bolting	UT/PT/MT	B-G-1	24	CHM-2675-B
RC Pumps Component Supports	VT-3/VT-4	B-K-2	3FT	MSG-003-B
RHX Circ. Head Weld*				
RHX Component Support*				
*Delete from ISI Program - See Unresolved Item 328/85-03-01				
Tanks - BIT Circ. Shell/Head	UT	C-A	1	ISI-0074-A
Piping - SIS	PT	C-C	2	MSG-0009-C
Piping - FWS	MT	C-C	1	MSG-0016-C

Component Support Containment Spray System	VT-3/VT-4	C-E	1	MSG-0011-C
Component Supports RHR	VT-3/VT-4	D-B	7	ISI-0150-C
Component Supports CVCS	VT-3/VT-4	D-D	6	ISI-0149-C

During the review of records for the above items the inspector noted that the regenerative heat exchangers had been deleted from the ISI program by a memo from TVA's ISI programs group. Discussions with TVA's ISI programs section personnel revealed that TVA is in the process of redefining its program ISI boundaries. The inspector informed the licensee that their initial ISI program had been submitted to NRC and that changes to this program should be reviewed by TVA's safety committee and forwarded to NRC for review prior to the deletion of items from the ISI initial program. Inspection of items such as the RHX Circulation Head Weld were required to be performed during the first inspection period of the first interval in accordance with the initial ISI Program. The inspector informed the licensee that a comprehensive review would have to be made of the redefined boundaries and that TVA Programs Section would be notified when the inspector was available to make such a review.

On January 15, 1985, the inspector discussed TVA's deviation from the initial submitted ISI program with NRC regional management. It was determined that since the licensee had not exceeded the three year time period for the first inspection period of the first interval an unresolved item would be open. The licensee's compliance group was notified on January 17, 1985, per telecon with Glenn Duggin, that Unresolved Item 327, 328/85-03-01, Review of TVA's redefined ISI program boundaries, would be reported in the inspector's report.

- b. The inspector also reviewed the licensee's notification of Indication Reports (NOI's) to determine if the corrective action was adequate and subsequent re-examinations were consistent with regulatory requirements. The following NOI's were reviewed:

<u>NOI NO.</u>	<u>Report Nos.</u>	<u>Item/Component/System</u>
SQ-0088	1297	Component Cooling
SQ-0089	1296	Component Cooling
SQ-0090	1292	Aux. Feedwater Hanger
SQ-0091	1334/1823	DGHXH-9
SQ-0092	1383/1836	1-CCH-420

SQ-0093	1407	SIH-410
SQ-0094	1409/1838	AFDH
SQ-0095	1357	ERCWH-214
SQ-0096	1441/1843	1-AFDH-250
SQ-0097	1456	1-CCH-720
SQ-0099	1507/1837	ERCWH-142
SQ-0100	110002	29RC-150-9
SQ-0101	1523/1847	CCH-62
SQ-0102	1486/1849	ERCWH-80
SQ-0103	1384/1833	ERCWH-84
SQ-0104	1613/1821	ERCWH-210
SQ-0105	1614/1852	ERCWH-269
SQ-0106	1615/1854	ERCWH-276
SQ-0107	1616	ERCWH-4-52
SQ-0108	1617/1820	ERCWH-275
SQ-0109	1618/1853	ERCWH-270
SQ-0110	1623/1834	CCH-423
SQ-0111	1624/1846	CCH-595
SQ-0112	1625/1835	CCH-427
SQ-0113	1686/1822	ERCWH-240
SQ-0114	1722/1856	ERCWH-222
SQ-0116	1744/1824	AFDH-367
SQ-0118	1804/1832	SIH-401
SQ-0119	1839/1840	RCH-35
SQ-0120	1850/1851	SIH-39
SQ-0121/0122	1870/1873	RHRH 76 & 7U
SQ-0123	1841/1842	RHRH-6
SQ-0124	1848	MSH-340
SQ-0125	1826	MSH-380
SQ-0126	1844	AFDH-308

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

6. (Closed) IE Bulletin 80-08, Examination of Containment Liner Penetration Welds Units 1 and 2

IE Bulletin 80-08 was forwarded on April 7, 1980, and requested licensees to determine if their facility contained the flued head design or other designs with containment boundary butt welds between the penetration sleeve and process piping as illustrated in Figure NE 1120-1, Winter 1975 Addenda to the 1974 and later editions of the ASME B&PV Code. If the licensees facility contained this design then the licensee was requested to determine if welds were made with a backing ring and whether or not volumetric examination was conducted by a radiography. The Bulletin indicated that weld joints with a backing ring that have not been radiographed, are of particular interest as they are potentially defective. In response to the Bulletin, TVA forwarded a letter dated July 8, 1980, stating that for the Sequoyah Nuclear Plant, penetrations contained the flued head design, however, butt welds without backing rings were used. All the welds in question had been radiographically examined.

Inspections were performed by Region II to verify the licensee's response as noted in inspection reports numbers 50-328/80-22 and 50-327, 328/84-26. A specific sample of radiographs for these penetrations were reviewed. The inspector also reviewed construction records for the fabrication of all Unit 2 penetrations of the design in question and found radiography had been performed in each case. This item is therefore considered closed.

Within the area examined, no violation or deviation was observed.