



Tennessee Valley Authority  
Post Office Box 2000  
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**Timothy P. Cleary**  
Site Vice President  
Sequoyah Nuclear Plant

July 24, 2009

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Sequoyah Nuclear Plant (SQN)  
Facility Operating Licensee No. DPR-77  
NRC Docket No. 50-327

**UNIT 1 CYCLE 16 (U1C16) 90-DAY INSERVICE INSPECTION (ISI)  
SUMMARY REPORT**

In accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Article IWA-6230, TVA is providing the SQN ISI Summary Report within 90 days from completion of the inspections performed during the U1C16 refueling outage. The summary report contains an overview of the inservice examination results that were performed on ASME Class 1 and 2 components up to and including the U1C16 refueling outage during the first inspection period of the third 10-year inspection interval. Enclosure 1 contains the Owner's Activity Report, an abstract of examinations and tests (Table 1), evaluation of conditions for continued service (Table 2), and the ASME Section XI, subsection IWE steel containment inspections. This report is being provided in accordance with ASME Section XI and Code Case N-532-4. Enclosure 2 contains a commitment to submit a relief request to extend the first period of the third interval.

Please direct any questions concerning this issue to Beth A. Wetzel (423) 843-7170.

Sincerely,

A handwritten signature in black ink that reads 'Timothy P. Cleary'.

Timothy P. Cleary

Enclosures  
cc: See page 2

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cc (Enclosure):

Mr. Siva P. Lingam, Project Manager  
U.S. Nuclear Regulatory Commission  
Mail Stop 08G-9a  
One White Flint North  
11555 Rockville Pike  
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K. R. Jones, OPS 4A-SQN  
D. E. Jernigan, LP 3R-C  
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P. D. Swafford, LP 3R-C  
L. E. Thibault, LP 3R-C  
E. J. Vigluicci, ET 10A-K  
B. A. Wetzel, OPS 4C-SQN  
R. J. Whalen, LP 3R-C  
WBN Site Licensing Files, ADM 1L-WBN  
EDMS, WT CA-K

I:License/ASME ISI/U1C16 90-Day ISI Summary Report

**FORM OAR-1 OWNER'S ACTIVITY REPORT**

Report Number U1C16 RFO

Plant Sequoyah Nuclear Plant, P.O. Box 2000, Soddy-Daisy, TN 37384-2000

Unit No. 1 Commercial service date July 1, 1981 Refueling Outage no. Cycle 16  
(if applicable)

Current Inspection Interval Third Ten Year Inspection Interval  
(1st, 2nd, 3rd, other)

Current Inspection Period First Period  
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 2001 Edition through 2003 Addenda

Date and Revision of inspection plan U1C16 Inspection Scan Plan Revision 1, July 9, 2009

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan Same as above

Code Cases used: N-460; N-526; N-586; N-624; N-648-1; N-658; N-695; N-532-4; N-706; N-722; N-729-1  
(if applicable)

Reference PER 176254 for Examination Category B-B welds and actions taken to request relief (No. 1-ISI-34) for inspection period extension and recurrence control.

**CERTIFICATE OF CONFORMANCE**

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of U1C16  
(refueling outage number)

conform to the requirements of Section XI.

Signed [Signature], ENGR PROGRAMS MGR Date 7-24-09  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Tennessee and employed by HSB CT of Hartford, Connecticut have inspected the items described in this Owner's Activity Report and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirement of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, repairs, replacements, evaluations, and corrective measures described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from the connected with this Inspection.

[Signature] Commissions TN 4096  
Inspector's Signature National Board, State, Province and Endorsements

Date 7/24/09

**ENCLOSURE 1**

**TENNESSEE VALLEY AUTHORITY (TVA)  
SEQUOYAH NUCLEAR PLANT (SQN)  
UNIT 1**

**ASME SECTION XI  
INSERVICE INSPECTION SUMMARY REPORT  
FROM UNIT 1 CYCLE 16**

The following limitations were noted during the performance of examinations during the Unit 1 Cycle 16 refueling outage and a relief request will be initiated in accordance with applicable ASME Code requirements.

Component	Exam Category	Item Number	Limitation percentage, configuration
CVCF-020	R-A	R1.11	41.9 percent, tee to valve
CSF-058	R-A	R1.11	34 percent, elbow to pipe
SIF-029	R-A	R1.11	50 percent, tee to valve
RHRF-106	R-A	R1.11	50 percent, pipe to valve

Additionally, it is noted that SQN failed to properly substitute a weld for an inaccessible weld during the Unit 1 Cycle 16 refueling outage. This issue was documented in the Corrective Action Program. Problem evaluation report (PER) 176254 was initiated to document the noncompliance with Examination Category B-B minimum percentage requirements. A relief request is being prepared to request an extension to the first period of the third interval.

**TABLE 1  
ABSTRACT OF EXAMINATIONS AND TESTS**

Examination Category and Item Number	Item Description	Evaluation Description
F-A, F1.20A	1-SIH-461, support misalignment	Engineering accept-as-is. Admin change to document alignment condition on support drawing.
F-A, F1.30B	CCH-0486, broken tack weld	Tack weld not essential for support function.
F-A, F1.40E	SGH-2-1, gap and misalignment (cold condition)	Engineering accept-as-is. The gap specified is for hot conditions; expect gap and alignment to be correct in hot condition.
E-A, E1.11	SCV-1, SCV-2, SCV-3, SCV-4, and Dome; areas of rust, unpainted, scrapes and dings.	Engineering accept-as-is. Conditions noted do not impact structural integrity of the SCV, no detrimental flaws have been observed.

**TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
1	1.5" SI piping	Replace piping and elbow associated with weld SI-1610	5/29/09	WO 09-773437-000
MC	TB-1, thermal barrier	Repair indications of missing caulk and dents	4/21/09	WO 08-773344-000
3	6" ERCW piping	Replace piping and elbow	10/6/08	WO 08-778015-000
3	4" ERCW piping	Replace flange and pipe	10/16/08	WO 08-780088-000
3	5/8" tubing	Penetration room cooler 1A-A tube plug	2/26/09	WO 08-772583-001
3	6" ERCW piping	Replace piping and elbow	5/6/09	WO 08-778171-000

**REPORTING REQUIRED BY 10 CFR 50.55a(b)(2)(ix)  
ASME Section XI, Subsection IWE  
Steel Containment Vessel Inspection Program**

10 CFR 50.55a(b)(2)(ix) requires the reporting of inaccessible areas and additional examinations identified during the performance of the ASME Section XI, Subsection IWE Steel Containment Vessel Inspection Program when conditions exist in accessible areas that could indicate the presence of or result in degradation to such inaccessible areas.

For the examinations performed during the Unit 1 Cycle 16 refueling outage, there were no degraded conditions identified in accessible portions of the SCV which would require additional examinations or evaluation of inaccessible areas.

**ENCLOSURE 2**

**TENNESSEE VALLEY AUTHORITY (TVA)  
SEQUOYAH NUCLEAR PLANT (SQN)  
UNIT 1**

**COMMITMENT**

SQN failed to properly substitute a weld for an inaccessible weld during the Unit 1 Cycle 16 refueling outage. A relief request is being prepared to request an extension to the first period of the third interval.