



Tennessee Valley Authority, Sequoyah Nuclear Plant, P.O. Box 2000, Soddy Daisy, Tennessee 37384

July 31, 2018

10 CFR 50.4
10 CFR 50.55a

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

Sequoyah Nuclear Plant, Unit 1
Renewed Facility Operating License No. DPR-77
NRC Docket No. 50-327

Subject: Unit 1 Refueling Outage 22 - 90-Day Inservice Inspection Summary Report

In accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Article IWA-6240 and Code Case N-532-5, the Tennessee Valley Authority is providing the Sequoyah Nuclear Plant (SQN), Unit 1, Inservice Inspection (ISI) Summary Report within 90 days from completion of the Unit 1 Refueling Outage 22 (U1R22). The U1R21 refueling outage ended on May 7, 2018. Accordingly, this report is required to be submitted by August 6, 2018.

The Enclosure to this letter contains the Owner's Activity Report, a list of items with flaws or relevant conditions that required evaluation for continued service (Table 1), an abstract of repair and replacement activities required for continued service due to a flaw or relevant condition (Table 2), and the evaluation of acceptability of inaccessible areas of the steel containment vessel in accordance with 10 CFR 50.55a(b)(2)(ix)(A).

There are no regulatory commitments associated with this submittal. Should you have any questions, please contact Mr. Michael McBrearty, Site Licensing Manager at (423) 843-7170.

Respectfully,

A handwritten signature in black ink, appearing to read 'Anthony L. Williams', enclosed within a large, hand-drawn oval.

Anthony L. Williams
Site Vice President
Sequoyah Nuclear Plant

**U.S. Nuclear Regulatory Commission
Page 2
July 31, 2018**

**Enclosure: ASME Section XI Inservice Inspection Summary Report,
Unit 1 Cycle 22 Refueling Outage**

cc (Enclosure):

**NRC Regional Administrator – Region II
NRC Senior Resident Inspector – Sequoyah Nuclear Plant
NRC Project Manager – Sequoyah Nuclear Plant**

ENCLOSURE

**TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT, UNIT 1**

**ASME SECTION XI
INSERVICE INSPECTION SUMMARY REPORT
UNIT 1 CYCLE 22 REFUELING OUTAGE**

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number U1R22

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. 22
(if applicable)

Current inspection interval Fourth Inspection Intervals
(1st, 2nd, 3rd, 4th, other)

Current inspection period First Inspection Period of the Fourth Interval
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 2001 Edition, 2003 Addenda
2007 Edition, 2008 Addenda

Date and revision of inspection plans April 4, 2017 - 0-SI-DXI-000-114.4, Revision 1
April 4, 2018 - 0-PI-DXI-000-114.4 Revision 0

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans Not Applicable

Code Cases used: N-508-4, N-513-3, N-532-5, N-566-2, N-586-1, N-716-1, N-722-1, N-729-4, N-770-2
(if applicable, including cases modified by Case N-532 and later revisions)

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan required by the ASME Code XI and (c) the repair/replacement activities and evaluations supporting the completion of U1R22 conform to the requirements of Section XI. (refueling outage number)

Signed [Signature] R/R Program Owner Date 7/20/2018
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 employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, CT 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 requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in manner for personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 20, 2018 Commissions NB 10822 A,N,I
Inspector's Signature (National Board and Endorsement)

**ASME SECTION XI
INSERVICE INSPECTION SUMMARY REPORT
SEQUOYAH NUCLEAR PLANT UNIT 1 REFUELING OUTAGE 22**

TABLE 1

**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT
REQUIRED EVALUATION FOR CONTINUED SERVICE**

| Examination Category and Item Number | Item Description | Evaluation Description |
|--------------------------------------|---|---|
| C-H, C7.10 | Valve 1-VLV-062-0715 flange connection boric acid accumulation due to leak. Condition Report (CR) 1345720 | Boric Acid Leakage Evaluation found valve and connection materials undamaged and no corrosion rate due to being stainless steel materials |
| C-H, C7.10 | Valve 1-VLV-063-0870 valve stem boric acid accumulation due to leak. CR 1411825 | Boric Acid Leakage Evaluation found valve and connection materials undamaged and no corrosion rate due to being stainless steel materials |
| C-H, C7.10 | Valve 1-VLV-063-0868 valve stem boric acid accumulation due to leak. CR 1411832 | Boric Acid Leakage Evaluation found valve and connection materials undamaged and no corrosion rate due to being stainless steel materials |

**ASME SECTION XI
INSERVICE INSPECTION SUMMARY REPORT
SEQUOYAH NUCLEAR PLANT UNIT 1 REFUELING OUTAGE 22**

TABLE 2

**ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES
REQUIRED FOR CONTINUED SERVICE**

| Code Class | Item Description | Description of Work | Date Completed | Repair/Replacement Plan Number |
|------------|-----------------------|---|----------------|--------------------------------|
| 1 | SQN-1-VLV-068-0563 | Replaced PZR Safety 1-VLV-068-0563 | 10/09/2017 | 118617283 |
| 3 | SQN-0-MTRA-067-0444-B | Repair support bracket | 01/22/2018 | 119183698 |
| 3 | SQN-0-MVOP-067-0208-B | Replace Pipe Section due to FAC Erosion | 04/18/2018 | 119526319 |

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

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

The conditions identified during the Unit 1 Cycle 22 refueling outage on the SCV Moisture Barrier prompted evaluation of the inaccessible area of the SCV and were determined to be acceptable and do not affect the degradation assessment for inaccessible areas. The conditions were documented in NOI 1-SQ-526. Only general surface corrosion that met the acceptance criteria was found. No corrective actions are required.