



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

CNL-15-164

August 14, 2015

10 CFR Part 54

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

Sequoyah Nuclear Plant, Units 1 and 2
Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Subject: **Second Annual Update to the Sequoyah Nuclear Plant, Units 1 and 2, License Renewal Application (TAC Nos. MF0481 and MF0482)**

References:

1. TVA Letter to NRC, "Sequoyah Nuclear Plant, Units 1 and 2 License Renewal," dated January 7, 2013 (ADAMS Accession No. ML13024A004)
2. TVA Letter to NRC, "Response to NRC Request for Additional Information Regarding the Review of the Sequoyah Nuclear Plant, Units 1 and 2, License Renewal Application: RAIs B.1.13-4 and 3.0.3-1-3c, Commitment 9.G, and 2013 LRA Annual Update," dated April 22, 2014 (ADAMS Accession No. ML14113A208)

By letter dated January 7, 2013 (Reference 1), Tennessee Valley Authority (TVA) submitted a License Renewal Application (LRA) to the Nuclear Regulatory Commission (NRC) to renew the operating licenses for the Sequoyah Nuclear Plant (SQN), Units 1 and 2. The request would extend the licenses for an additional 20 years beyond the current expiration dates. By Reference 2, TVA submitted the first annual update to the LRA, as required by 10 CFR 54.21(b).

TVA has completed a review to identify any current licensing basis (CLB) changes made since the submittal of Reference 2, which have a material effect on the content of the LRA, including the Final Safety Analysis Report (FSAR) Supplement. The review identified one change to the CLB that materially affects the content of the SQN LRA. This change is described in the enclosed second SQN LRA annual update.

There are no new regulatory commitments contained in this letter. Please address any questions regarding this submittal to Erin Henderson at (423) 843-7170.

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I declare under penalty of perjury that the foregoing is true and correct. Executed on this 14th day of August, 2015.

Respectfully,

A handwritten signature in blue ink, appearing to read 'J. W. Shea', is written over the word 'Respectfully'.

J. W. Shea
Vice President, Nuclear Licensing

RDW:EDS

Enclosure: Sequoyah Nuclear Plant, Units 1 and 2 License Renewal Application Second Annual Update

cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Sequoyah Nuclear Plant
NRC Project Manager - Sequoyah Nuclear Plant
NRR License Renewal Project Manager - Sequoyah Nuclear Plant

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Review Period

May 4, 2012 (freeze date) is the date of record for documents used in preparation of the Sequoyah Nuclear Plant (SQN) License Renewal Application (LRA). December 31, 2013 was the cut-off date for documents that were considered as part of the first annual update report (Reference 2 of the cover letter). The review for this LRA update covers the period from January 1, 2014, through June 11, 2015.

Description of Current License Basis (CLB) Changes that Impact the SQN LRA

Penetrations SQN-1-PENE-302-0026-S and SQN-1-PENE-302-0040-S were removed from the 10 CFR 50.49 environmental qualification (EQ) program as part of a plant modification. TVA originally purchased these penetrations for use in safety related EQ applications, added them to the EQ Program, and qualified these penetrations in accordance with 10 CFR 50.49. However, it was later determined that these penetrations do not contain any safety-related electrical equipment and that the sole safety-related function for these penetrations is to maintain containment pressure boundary integrity. Therefore, these penetrations have been removed from the EQ program. These penetrations will continue to be maintained in accordance with the 10 CFR 50 Appendix J leak rate program.

The LRA is affected because the LRA currently states: "All SQN electrical and I&C penetration assemblies are in the EQ program (10 CFR 50.49)." The aging effects associated with the electrical functions, not subject to 10 CFR 50.49 EQ requirements, are managed by the Non-EQ insulated cables and connections program and the aging effects associated with the mechanical functions are managed by the containment leak rate program. Therefore, the LRA is being revised to note that penetrations SQN-1-PENE-302-0026-S and SQN-1-PENE-302-0040-S are not within the scope of the EQ program and to clarify how aging effects are managed for these two penetrations.

SQN LRA Changes

As result of the removal of penetrations SQN-1-PENE-302-0026-S and SQN-1-PENE-302-0040-S from the EQ Program, Section 2.5, Table 2.4-1, and Table 3.5.2-1 of the SQN LRA, are modified as shown with additional text underlined and deleted text lined through.

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Section 2.5 SCOPING AND SCREENING RESULTS: ELECTRICAL AND INSTRUMENTATION AND CONTROL SYSTEMS

Commodity Groups Not Subject to AMR

Electrical and I&C Penetration Assemblies

All Primary Containment SQN electrical and I&C penetration assemblies, with the exception of penetrations SQN-1-PENE-302-0026-S and SQN-1-PENE-302-0040-S, are in the EQ program (10 CFR 50.49). SQN electrical and I&C penetration assemblies in the EQ program are subject to replacement based on their qualified life, so they are not subject to aging management review. Non-EQ cables and connections to electrical and I&C penetrations are evaluated in the insulated cable and connection commodity group. The pressure boundary function of penetration assemblies SQN-1-PENE-302-0026-S and SQN-1-PENE-302-0040-S are included in the evaluation for the Reactor Building in Section 2.4.1.

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**Table 2.4-1
Reactor Building
Components Subject to Aging Management Review**

Component	Intended Function
<i>Elastomers and Other Materials</i>	
Lower inlet doors	Direct flow Heat sink Insulation Missile barrier Shelter or protection Support for Criterion (a)(1) equipment Support for Criterion (a)(3) equipment
Moisture barrier	Direct flow Shelter or protection Support for Criterion (a)(1) equipment
<u>Primary containment electrical penetration seals and sealant</u>	<u>Pressure Boundary</u>
Seal between the upper and lower compartments (divider barrier)	Support for Criterion (a)(1) equipment
Service level I coatings	Support for Criterion (a)(2) equipment

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**Table 3.5.2-1
Reactor Building
Summary of Aging Management Evaluation**

Table 3.5.2-1: Reactor Building								
Structure and/or Component or Commodity	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Item	Table 1 Item	Notes
Service level I coatings	SNS	Coatings	Air – indoor uncontrolled	Loss of coating integrity	Protective Coating Monitoring and Maintenance	II.A3.CP-152 III.A4.TP-301	3.5.1-34 3.5.1-73	A
Primary containment electrical penetration seals and sealants	<u>PB</u>	<u>Elastomer</u>	<u>Air - indoor uncontrolled</u>	<u>Loss of sealing</u>	Containment Leak Rate	II.A3-1 CP-41	3.5.1.33	A