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

CNL-15-065

April 2, 2015

10 CFR 2.202

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

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

Subject: **Request for Schedule Relaxation from NRC Order EA-12-049, "Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Event"**

Reference: U.S. Nuclear Regulatory Commission, Order EA-12-049, Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012 (ML12056A045)

By letter dated March 12, 2012, (Reference Letter) the Nuclear Regulatory Commission (NRC) ordered Tennessee Valley Authority (TVA) to take certain actions at Sequoyah Nuclear Plant (SQN), Units 1 and 2, associated with the Fukushima Near-Term Task Force Recommendations. NRC Order EA-12-049 directed that actions be taken by licensees to develop and implement strategies to maintain or restore core cooling, containment and spent fuel pool (SFP) cooling capabilities during beyond-design-basis external events.

Section IV of the order states, "As applicable, the Director, Office of Nuclear Reactor Regulation or the Director, Office of New Reactors may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee or [construction permit] holder of good cause."

In accordance with Section IV of Order EA-12-049, TVA is requesting that the Director, Office of Nuclear Reactor Regulation, relax the requirement for completion of full implementation for SQN Unit 1, as prescribed in Section IV A.2 of Order EA-12-049 for reasons detailed in the attachment to this letter. That requirement states in part, "All holders of operating licenses issued under Part 50 . . . shall complete full implementation no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a, or December 31, 2016, whichever comes first."

The purpose of this letter is to request a relaxation of schedule requirements contained in NRC Order EA-12-049 for SQN Unit 1. The proposed schedule relaxation aligns the SQN Unit 1 to the SQN Unit 2 schedule for full compliance with the Order EA-12-049 requirements. The SQN Unit 2 full compliance date is restart from the scheduled SQN Unit 2 Cycle 20 refueling outage (forecasted for December 2015).

TVA discussed the proposed schedule relaxation request with the NRC Japan Lessons-Learned Division in a teleconference on March 25, 2015. This request is similar to a request submitted by Florida Power and Light Company, Turkey Point Unit 3, on December 19, 2014 (ML15014A228) and granted by the NRC on March 13, 2015 (ML15013A498).

TVA considers that upon approval by the NRC, the alternative full implementation date regarding Order EA-12-049 proposed in the attachment will constitute a condition of the Order EA-12-049 for SQN Unit 1

There are no new regulatory commitments contained in this letter.

If you have any question regarding this submittal, please contact Erin Henderson at (423) 843-7170.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 2nd day of April 2015.

Respectfully,

J. W. Shea

Digitally signed by J. W. Shea
DN: cn=J. W. Shea, o=Tennessee Valley Authority, ou=Nuclear Licensing, email=jwshea@tva.gov, c=US
Date: 2015.04.02 16:41:09 -04'00'

J. W. Shea
Vice President, Nuclear Licensing

Enclosure:

Request for Schedule Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Sequoyah Nuclear Plant, Unit 1

cc (Enclosure):

NRR Director - NRC Headquarters
NRO Director - NRC Headquarters
NRR JLD Director - NRC Headquarters
NRC Regional Administrator - Region II
NRC Project Manager - Sequoyah Nuclear Plant
NRC Senior Resident Inspector - Sequoyah Nuclear Plant
NRC JLD Project Manager - Sequoyah Nuclear Plant

ENCLOSURE

REQUEST FOR SCHEDULE RELAXATION OF NRC ORDER EA-12-049 REQUIREMENT IV.A.2 FOR SEQUOYAH NUCLEAR PLANT, UNIT 1

Relaxation Request:

Pursuant to Section IV of the Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (Reference 1), Tennessee Valley Authority (TVA), Sequoyah Nuclear Plant (SQN), Unit 1, hereby submits a request for schedule relaxation from the Order requirements for completion of full implementation no later than two (2) refueling cycles after submittal of the overall integrated plan as required in Condition C.1.a of the Order, or December 31, 2016, whichever occurs first.

Order Requirement from Which Relaxation is Requested:

Order EA-12-049, Section IV.A.2 requires completion of full implementation of the Order requirements no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a of the Order, or December 31, 2016, whichever comes first.

In accordance with the requirements of the Order, TVA submitted the SQN, Units 1 and 2 Mitigation Strategies Overall Integrated Plan (Reference 2) to the NRC on February 28, 2013. TVA also provided six-month status reports for SQN Units 1 and 2 (References 3, 4, 5, and 6). The second refueling outage is currently scheduled to commence in April 2015 for SQN Unit 1 and in November 2015 for SQN Unit 2. Therefore, consistent with the schedule requirements of Order EA-12-049, full implementation of the mitigating strategies must be completed prior to startup from the April 2015 refueling outage for SQN Unit 1 and prior to the startup from the November 2015 refueling outage for SQN Unit 2.

Justification for Relaxation Request:

Order EA-12-049 requires the development, implementation, and maintenance of guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Section II of Order EA-12-049 describes the need to have guidance and strategies available to prevent fuel damage in the reactor and spent fuel pit should the loss of power, motive force and normal access to the ultimate heat sink affect all units at a site simultaneously.

SQN is a two unit site with physical and procedural interdependencies. The two units share certain common structures, systems and components (such as essential raw cooling water cross connections, component cooling and DC buses), a common control room, and common Operational Staff and FLEX implementation resources.

Without relaxation of the schedule for SQN Unit 1, compliance with Order EA-12-049 would result in an interim period (for approximately six months) during which SQN Unit 1 and Unit 2 would not be consistently configured for responding to a beyond design basis event at the site. For example, injection points for steam generators and reactor coolant system would not be installed on Unit 2. This inconsistency in plant design configuration would complicate the implementation of cooldown requirements as it would result in conflicting demands on how to use the limited personnel for the event mitigation strategy for both SQN units.

The physical modifications for Unit 1 that require a refueling outage to implement will be completed prior to restart from the second refueling outage, currently scheduled for May 2015. In addition, the FLEX Support Instructions and FLEX Maintenance Instructions will be ready to issue pending completion of modifications. The FLEX portable equipment (i.e. pumps, hoses, debris removal equipment, etc.) has been procured and is on site. However, the schedules for construction of the FLEX Equipment Storage Building (FESB) and construction of the Condensate Storage Tank (CST) missile protection wall have been impacted by the winter weather. These impacts have resulted in little schedule margin to complete these modifications by startup from the SQN, Unit 1 refueling outage. The current completion schedule for installation of the FLEX 3MW Diesel Generators (DGs) is also lagging the projected completion schedule. This has resulted in scheduling the 3MW DG electrical tie-ins with the existing Emergency Diesel Generator (EDG) electrical distribution system late in the refueling outage. These tie-ins require removing the EDGs from service during the refueling outage. This work can be performed on line during the period between completion of the Unit 1 refueling outage and prior to the Unit 2 refueling outage, reducing the associated risk of having the EDGs out of service during the Unit 1 refueling outage.

While most of the physical modifications are unit specific, due to the interdependency of needed systems and structures, the interim period would require special procedures and training that would create operational challenges on both units with respect to external event mitigation actions. As such, compliance to the Unit 1 schedule requirements of the NRC Order EA-12-049 would create a hardship without a commensurate increase in the level of safety.

TVA is requesting herein that the Director, Office of Nuclear Reactor Regulation, relax the requirement for full implementation for SQN Unit 1 as prescribed in Section IV.A.2 of Order EA-12-049 schedule requirements. Specifically, TVA proposes to defer the full implementation of the Order requirement for SQN Unit 1 until the requirements are also implemented for SQN Unit 2.

Accordingly, TVA requests that the Order EA-12-049, Section IV.A.2 full implementation date for SQN Unit 1 be adjusted to the following milestone:

- SQN Unit 1 - Restart from the scheduled SQN Unit 2 Cycle 20 refueling outage (Forecasted for December 2015)

The requested schedule adjustment for SQN Unit 1 would allow both SQN Units 1 and 2 to have the same implementation date.

The justification for aligning the implementation dates for SQN Units 1 and 2 is a reduction in the risk to safety through completion of the common unit FESB, CST missile protection wall and 3 MW DG modifications during the approximate 6 month period between the Unit 1 and Unit 2 refueling outages. Further justification is through the implementation of a more consistent and overall site response to a beyond design basis event through the use of a consistent and unified approach to procedural development and training.

TVA considers that upon approval by the NRC, the proposed alternative full implementation date will constitute a condition of the NRC Order EA-12-049 for SQN, Unit 1.

Conclusion:

As described above, compliance with the SQN, Unit 1 Order EA-12-049 schedule requirements for full implementation of the mitigation strategies would result in hardship or unusual difficulty without a compensating increase in the level of safety. Therefore, in accordance with the provisions of Section IV of Order EA-12-049, TVA requests relaxation of the requirement described in Section IV.A.2 of Order EA-12-049.

References:

1. US. Nuclear Regulatory Commission, Order Number EA-12-049, Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012 (ML12056A045)

2. Letter from TVA to NRC, "Tennessee Valley Authority (TVA) - Overall Integrated Plan in Response to the March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) for Sequoyah Nuclear Plant," dated February 28, 2013 (ML13063A183)

3. Letter from TVA to NRC, "First Six-Month Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) for Sequoyah Nuclear Plant," dated August 28, 2013 (ML13247A286)

4. Letter from TVA to NRC, "Second Six-Month Status Report and Revised Overall Integrated Plan in Response to the March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order-EA-12-049) for Sequoyah Nuclear Plant," dated February 28, 2014 (ML14064A181)

5. Letter from TVA to NRC, "Third Six-Month Status Report in Response to the March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) for Sequoyah Nuclear Plant (TAC Nos. MF0864 and MF0865)," dated August 28, 2014 (ML14247A644)

6. Letter from TVA to NRC, "Fourth Six-Month Status Report in Response to the March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) for Sequoyah Nuclear Plant (TAC Nos. MF0864 and MF0865)," dated February 27, 2015