



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

April 29, 2015

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street LP 3D-C
Chattanooga, TN 37402

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNIT 1 – RELAXATION OF THE SCHEDULE REQUIREMENTS OF ORDER EA-12-049, "ISSUANCE OF ORDER TO MODIFY LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS" (TAC NO. MF0864)

Dear Mr. Shea:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12054A735), the U.S. Nuclear Regulatory Commission (NRC) ordered Tennessee Valley Authority (TVA, the licensee), to take certain actions at Sequoyah Nuclear Plant (Sequoyah), Units 1 and 2, associated with the Fukushima Near-Term Task Force Recommendations. 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 cooling capabilities during beyond-design-basis external events.

Section IV of the order states that licensees proposing to deviate from requirements contained in NRC Order EA-12-049 may request that the Director, Office of Nuclear Reactor Regulation, relax or rescind certain conditions. By letter dated April 2, 2015 (ADAMS Accession No. ML15096A256), TVA submitted a request for relaxation of the schedule requirement for full implementation for Sequoyah, Unit 1, as prescribed in Section IV A.2 of NRC Order EA-12-049. 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 licensee stated in its request that the second refueling outage will commence in May 2015 for Unit 1 and December 2015 for Unit 2. Therefore, consistent with the schedule requirements of Order EA-12-049, full implementation of the mitigating strategies for Unit 1 must be completed prior to startup from the May 2015 refueling outage. TVA requested that the required date for full implementation for Unit 1 be relaxed until restart following the Unit 2 Cycle 20 refueling outage, which is forecasted for December 2015. The requested schedule relaxation for Unit 1 would allow Sequoyah, Units 1 and 2 to be in compliance with the Order EA-12-049 requirements at the same time.

In its April 2, 2015, letter, TVA provided several reasons in support of its relaxation request for Unit 1. The licensee indicated that Sequoyah is a two unit site with significant physical and procedural interdependencies. The licensee stated that the two units share certain common structures, systems and components (such as essential raw cooling water cross connections, component cooling and direct current buses), a common control room and common operational

staff. The current schedule requirements for compliance with Order EA-12-049 for Unit 1 would result in an interim period of approximately six months during which the two units 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 in a beyond-design-basis external event, as it would result in conflicting demands on how to use the limited personnel for the event mitigation strategy for both Sequoyah units. This interim period would also require special procedures and training that would create operational challenges on both units with respect to beyond-design-basis external event mitigation actions. Additionally, the licensee noted weather related delays in the construction of the FLEX Equipment Storage Building, Sequoyah, Unit 1 Condensate Storage Tank missile protection wall, and delays in the installation of the FLEX 3MW Diesel Generators.

In light of the facts presented, the NRC staff has determined that the licensee has demonstrated good cause to relax the order implementation date. The NRC staff agrees that required compliance with the Unit 1 schedule requirements of Order EA-12-049 would create a hardship without a compensating increase in the level of safety. The NRC staff also considered that, following the accident at Fukushima Dai-ichi, the NRC concluded that a sequence of events such as the Fukushima Dai-ichi accident is unlikely to occur in the United States, based on the current regulatory requirements and existing plant capabilities. Therefore, the extension of time (approximately six months) for Unit 1 to achieve full implementation of the requirements of the mitigation strategies order until restart following the Unit 2 Cycle 20 refueling outage (December 2015) is justified. Given the plant-specific circumstances at Sequoyah, Unit 1, and that the proposed completion date is prior to the ultimate December 2016 implementation date of the order, the NRC staff approves the relaxation request.

Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the requirement of the order for full order implementation for Sequoyah, Unit 1 is relaxed until the completion of the Unit 2 Cycle 20 refueling outage scheduled in December 2015. The licensee did not request relaxation of the requirement for full order implementation for Sequoyah, Unit 2, so that requirement, for full implementation by the completion of the Unit 2 December 2015 refueling outage, is unchanged.

If you have any questions, please contact Tony Brown at 301-415-1924.

Sincerely,

A handwritten signature in black ink, appearing to read 'W M Dean', with a long horizontal flourish extending to the right.

William M. Dean, Director
Office of Nuclear Reactor Regulation

Docket No. 50-327

cc: Listserv

staff. The current schedule requirements for compliance with Order EA-12-049 for Unit 1 would result in an interim period of approximately six months during which the two units 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 in a beyond-design-basis external event, as it would result in conflicting demands on how to use the limited personnel for the event mitigation strategy for both Sequoyah units. This interim period would also require special procedures and training that would create operational challenges on both units with respect to beyond-design-basis external event mitigation actions. Additionally, the licensee noted weather related delays in the construction of the FLEX Equipment Storage Building, Sequoyah, Unit 1 Condensate Storage Tank missile protection wall, and delays in the installation of the FLEX 3MW Diesel Generators.

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Sincerely,

/RA/

William M. Dean, Director
Office of Nuclear Reactor Regulation

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