



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

November 10, 2020

Mr. James Barstow
Vice President, Nuclear Regulatory Affairs
and Support Services
Tennessee Valley Authority
1101 Market Street, LP 4A-C
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 – TEMPORARY EXEMPTION FROM THE EXERCISE FREQUENCY REQUIREMENTS OF 10 CFR PART 50, APPENDIX E, “EMERGENCY PLANNING AND PREPAREDNESS FOR PRODUCTION AND UTILIZATION FACILITIES,” SECTION IV.F (EPID L-2020-LLE-0157 [COVID-19])

Dear Mr. Barstow:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has approved the below temporary exemption from specific requirements of Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities,” to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section IV.F.2.b, for the Sequoyah Nuclear Plant (Sequoyah), Units 1 and 2. This action is in response to your application dated September 30, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20274A362), that requested a one-time scheduler exemption from the calendar year (CY) 2020 biennial onsite emergency preparedness (EP) exercise until CY 2021.

Tennessee Valley Authority (TVA, the licensee) holds Renewed Facility Operating License Nos. DPR-77 and DPR-79, which authorize the operation of Sequoyah, Units 1 and 2, respectively. These licenses are subject to the rules, regulations, and orders of the Commission. The facility consists of two pressurized-water reactors located in Soddy-Daisy (Hamilton County), Tennessee.

By letter dated September 30, 2020, TVA submitted a request for temporary exemption from Appendix E to 10 CFR Part 50, Section IV.F.2.b, regarding the performance of its onsite biennial EP exercise at Sequoyah.

The requirements in 10 CFR Part 50, Appendix E, Section IV.F.2.b, state, in part:

Each licensee at each site shall conduct a subsequent exercise of its onsite emergency plan every 2 years. ... The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section.

In Appendix E to 10 CFR Part 50, the NRC defines the term “full participation,” when used in conjunction with EP exercises for a particular site, to mean appropriate offsite local and State authorities and licensee personnel physically and actively take part in testing their integrated capability to adequately assess and respond to an accident at a commercial nuclear power plant. Full participation includes testing major observable portions of the onsite and offsite emergency plans and mobilization of State, local, and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario. While desirable, full participation exercises are not required to be performed simultaneously with exercises required by 10 CFR Part 50, Appendix E, Sections IV.F.2.b.

On January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency (PHE) for the United States to aid the nation’s healthcare community in responding to the Coronavirus Disease 2019 (COVID-19). Subsequently, the Centers for Disease Control and Prevention (CDC) issued recommendations (e.g., social distancing, limiting assemblies) in an attempt to limit the spread of COVID-19.¹

In your application, you provided the following information:

- TVA has determined that due to isolation activities (e.g., social distancing, group size limitations, telework (where possible), and self-quarantining) in the response to COVID-19, an exemption is needed from the CY 2020 biennial onsite EP exercise requirements because these isolation activities do not allow for an adequate means to effectively implement an onsite exercise without risk to station personnel.
- The threat of COVID-19 spread has resulted in the inability to safely conduct the biennial onsite EP exercise that was scheduled for October 14, 2020, due to implementation of isolation activities (e.g., social distancing, group size limitations, self-quarantining, etc.).
- This one-time schedular exemption to allow the licensee to postpone the CY 2020 biennial onsite EP exercise to CY 2021 supports continued implementation of the isolation activities (e.g., social distancing, group size limitations, self-quarantining, etc.) to protect required emergency response organization (ERO) personnel in response to the COVID-19 PHE.
- The last biennial EP exercise was conducted on October 3, 2018. Since that time, TVA has conducted numerous drills, exercises, and other training activities that have exercised its emergency response strategies in coordination with offsite authorities since the previous biennial onsite EP exercise, including:
 - March 27, 2019 – Training Drill (site and emergency operations facility (EOF) with State Warning Point participation, radiological monitoring, radiological protection, radiological dose assessment, communication drill, and medical emergency drill)
 - May 15, 2019 – Severe Accident Management Guidelines/Training Drill (site and EOF with State Warning Point participation radiological monitoring, radiological protection, radiological dose assessment, and communication drill)
 - July 24, 2019 – Training Drill (site and EOF with State Warning Point

¹ CDC, “How to Protect Yourself and Others,” April 18, 2020 (ADAMS Accession No. ML20125A069)

participation radiological monitoring, radiological protection, radiological dose assessment, and communication drill)

- October 10, 2019 – Erlanger Hospital Drill (Erlanger Hospital, local Emergency Management Agency, and site radiation protection and EP)
 - October 24, 2019 – Memorial Hixson Drill (Memorial Hixson Hospital, local Emergency Management Agency, and site radiation protection and EP)
 - March 11, 2020 – Training/After Hours Drill (site and EOF participation radiological monitoring, radiological protection, radiological dose assessment, and communication drill)
 - September 16, 2020 – Virtual Tabletop Training Drill (site)
 - September 16, 2020 – Tabletop Drill (EOF, Joint Information Center, and Central Emergency Control Center Control Cell with State and local participation)
- TVA conducted training and drills that have exercised the principle functional areas of emergency response since the last evaluated biennial onsite EP exercise and activated all onsite emergency response facilities during those drills. The offsite response organization (ORO) participation in the CY 2020 biennial EP exercise required under 10 CFR Part 50, Appendix E, Section IV.F.2.c, will still be performed as scheduled in CY 2020, but with remote participation by Sequoyah.
 - TVA made a reasonable effort to reschedule the Sequoyah biennial onsite EP exercise during CY 2020, but as the COVID-19 site mitigation measures will potentially need to be in place until the end of CY 2020, rescheduling was unsuccessful.
 - The date of the rescheduled biennial onsite EP exercise will fall within 35 months from the month of the previously evaluated biennial EP exercise (October 2018). This exemption would only defer the CY 2020 biennial onsite EP exercise into CY 2021. Future biennial EP exercises would continue to be held in even-numbered years.

Pursuant to 10 CFR 50.12, “Specific exemptions,” the NRC may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security, and (2) special circumstances are present.

The NRC staff determined that the requested exemption is permissible under the Atomic Energy Act of 1954, as amended, and that no other prohibition of law exists to preclude the activities that would be authorized by the exemption. Therefore, the NRC staff finds that the requested exemption is authorized by law.

The regulations in 10 CFR Part 50, Appendix E, Section IV.F.2.b, concern requirements for licensees to conduct biennial onsite EP exercises at their facilities. No new accident precursors are created by allowing the licensee to postpone the biennial onsite EP exercise from CY 2020 until CY 2021. Thus, the probability and consequences of postulated accidents are not increased. In addition, the requested exemption for a one-time change to the biennial onsite EP exercise schedule has no relation to security issues. Therefore, the NRC staff finds that the

requested exemption will not present an undue risk to the public health and safety and is consistent with the common defense and security.

Special circumstances, per 10 CFR 50.12, that apply to the requested exemption include:

- a. 10 CFR 50.12(a)(2)(ii): “Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.”

The regulation in 10 CFR Part 50, Appendix E, Section, IV.F.2.b, requires licensees to conduct an exercise of their site emergency plan biennially. The underlying purpose of this requirement is to ensure that the emergency organization personnel are familiar with their duties and to identify and correct any weaknesses that may exist in the licensee’s EP Program. The licensee stated that it has conducted training drills exercising the principal functional areas of emergency response since the last evaluated biennial onsite EP exercise, has activated all onsite emergency response facilities during those drills, and will still conduct its biennial offsite exercise with OROs for CY 2020. Based on the above, the NRC staff finds that the underlying purpose of Appendix E, Section, IV.F.2.b, has been met by the licensee having conducted the listed EP activities and establishing an acceptable tentative date for the rescheduled biennial onsite EP exercise of September 8, 2021.

- b. 10 CFR 50.12(a)(2)(v): “The exemption would provide only temporary relief from the applicable regulation and the licensee has made good faith efforts to comply with the regulation.”

TVA determined that the originally scheduled exercise date does not support continued implementation of the isolation activities (e.g., social distancing, group size limitations, self-quarantining, etc.) to protect required ERO personnel in response to the ongoing COVID-19 PHE. These activities are needed to ensure that ERO personnel are isolated from COVID-19 and remain capable of executing the functions of the ERO as described in the Sequoyah Emergency Plan. Accordingly, TVA proposed a date of September 8, 2021, for the biennial onsite EP exercise.

Therefore, the NRC staff finds that TVA’s requested exemption to conduct the biennial onsite EP exercise in CY 2021, instead of CY 2020, would provide only temporary relief from the applicable regulation and that the licensee has made good faith efforts to comply with the regulation.

Based on the above, the NRC staff finds that the special circumstances of 10 CFR 50.12(a)(2)(ii) and 10 CFR 50.12(a)(2)(v) are present.

The NRC’s approval of the requested exemption is categorically excluded under 10 CFR 51.22(c)(25), and there are no extraordinary circumstances present that would preclude reliance on this exclusion. The NRC staff determined, per 10 CFR 51.22(c)(25)(vi)(E), that the requirements from which the exemption is sought involve education, training, experience, qualification, requalification, or other employment suitability requirements.

The NRC staff also determined that approval of this exemption involves no significant hazards consideration because it does not authorize any physical changes to the facility or any of its safety systems, does not change any of the assumptions or limits used in the licensee’s safety

analyses, and does not introduce any new failure modes. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite because this exemption does not affect any effluent release limits as provided in the licensee's technical specifications or by the regulations in 10 CFR Part 20, "Standards for Protection Against Radiation." There is no significant increase in individual or cumulative public or occupational radiation exposure because this exemption does not affect limits on the release of any radioactive material or the limits provided in 10 CFR Part 20 for radiation exposure to workers or members of the public. There is no significant construction impact because this exemption does not involve any changes to a construction permit. There is no significant increase in the potential for or consequences from radiological accidents because the exemption does not alter any of the assumptions or limits in the licensee's safety analysis. In addition, the NRC staff determined that there would be no significant impacts to biota, water resources, historic properties, cultural resources, or socioeconomic conditions in the region. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the requested exemption.

Granting the requested exemption does not impact NRC findings of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Sequoyah. In the statement of considerations for the standards to be applied when considering whether to grant exemptions ("Specific Exemptions; Clarification of Standards, Final Rule," 50 *Federal Register* 50764, dated December 12, 1985), the Commission stated:

While compliance with all NRC regulations provides reasonable assurance of adequate protection of the public health and safety, the converse is not correct, that failure to comply with one regulation or another is an indication of the absence of adequate protection, at least in a situation where the Commission has reviewed the noncompliance and found that it does not pose an "undue risk" to the public health and safety. Furthermore, the Commission has never defined the concept of "defense-in-depth" to preclude the granting of an exemption from a regulation as long as the applicable exemption criteria are met. In fact, the Commission has recognized that its regulations may provide for the possibility of exemptions when an appropriately high level of safety is in fact achieved and the public interest is served.

The NRC staff has determined that in accordance with 10 CFR 50.12, the requested exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security; and that special circumstances are present. Therefore, the NRC hereby grants the licensee's request for a one-time schedular exemption from the requirements for the biennial onsite EP exercise in 10 CFR Part 50, Appendix E, Section IV.F.2.b.

This exemption expires on September 30, 2021.

J. Barstow

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If you have any questions, please contact the Sequoyah project manager, Michael Wentzel, at 301-415-6459 or by e-mail to Michael.Wentzel@nrc.gov.

Sincerely

Craig G. Erlanger, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

cc: Listserv

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***via e-mail**

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