



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

July 15, 2019

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

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNIT 2 – PUBLIC NOTICE OF
APPLICATION FOR AMENDMENT TO FACILITY OPERATING LICENSE
(EPID L-2019-LLA-0149)

Dear Mr. Shea:

The enclosed announcement was forwarded to the Hamilton County, *Chattanooga Times* newspaper (now known as *Times Free Press*) for publication. This announcement relates to your application dated July 14, 2019, for an exigent amendment to Renewed Facility Operating License (RFOL) No. DPR-79 for the Sequoyah Nuclear Plant (Sequoyah), Unit 2.

The proposed amendment would approve of a one-time change to Sequoyah, Unit 2, Technical Specifications Table 3.3.3 1, "Post Accident Monitoring Instrumentation," Function 15c, to permit the reactor vessel level instrumentation system upper range level channels to not be operable for the remainder of the Sequoyah, Unit 2, Operating Cycle 23. Sequoyah, Unit 2, is scheduled to start the Cycle 23 refueling outage in Spring 2020.

The licensee also proposed to add a license condition to the Sequoyah, Unit 2, RFOL to implement the compensatory measures described in Section 3.8, "Additional Compensatory Measures," of the enclosure during the timeframe the reactor vessel level instrumentation system upper range level channels are not required to be operable for the remainder of Cycle 23. If the reactor vessel level instrumentation system upper range level channels are returned to operable status prior to the end of Cycle 23, these compensatory measures will no longer be required. This is being proposed as RFOL Condition 2.C.(26).

J.Shea

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If you have any questions, please contact me at 301-415-84800 or by e-mail to Andrew.Hon@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Hon", with a long horizontal flourish extending to the right.

Andrew Hon, Project Manager
Licensing Project Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosure:
Public Notice

cc: Listserv

ENCLOSURE
PUBLIC NOTICE

PUBLIC NOTICE

NRC STAFF PROPOSES TO AMEND THE FACILITY OPERATING LICENSE FOR THE SEQUOYAH NUCLEAR PLANT, UNIT 2

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has received an application dated July 14, 2019, from the Tennessee Valley Authority (TVA, the licensee) for an exigent amendment to the Renewed Facility Operating License (RFOL) for the Sequoyah Nuclear Plant (Sequoyah or SQN), Unit 2, located in Hamilton County, Tennessee.

The proposed exigent amendment would approve a one-time change to Sequoyah, Unit 2, Technical Specification (TS) Table 3.3.3-1, "Post Accident Monitoring Instrumentation," Function 15c, to permit the reactor vessel level instrumentation system (RVLIS) upper range level channels to not be operable for the remainder of the Sequoyah, Unit 2, Operating Cycle 23. Sequoyah, Unit 2, is scheduled to start the Cycle 23 refueling outage in Spring 2020.

The licensee also proposed to add a license condition to the Sequoyah, Unit 2, RFOL to implement compensatory measures while the RVLIS upper range level channels are not required to be operable. If the RVLIS upper range level channels are returned to operable status prior to the end of Cycle 23, then these compensatory measures will no longer be required. This is being proposed as RFOL Condition 2.C.(26).

The licensee stated that the request is necessary because at 0915 hours eastern daylight time (EDT) on July 12, 2019, while Sequoyah, Unit 2, was in Mode 1, the RVLIS upper range level Channel A was declared inoperable due to the channel indication being outside of its allowable range (i.e., high). This placed the unit into the 30-day Completion Time of Condition A of Sequoyah, Unit 2, TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation."

During troubleshooting, TVA determined that the RVLIS upper range level channel B was also increasing similarly to channel A. After further investigation and troubleshooting, at 1436 hours EDT on July 12, 2019, the RVLIS upper range level Channel B was also declared

inoperable. This placed Sequoyah, Unit 2, into Condition C of Sequoyah, Unit 2, TS 3.3.3, which requires restoration of one channel to operable status within 7 days. After that expiration, TS 3.3.3, Condition H, will require Sequoyah, Unit 2, to be in Mode 3 within 6 hours and Mode 4 in 12 hours.

The licensee requested that the proposed amendment be processed on an exigent basis in accordance with the provisions in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.91(a)(6). Under 10 CFR 50.91(a)(6)(i), where the Commission finds that exigent circumstances exist in that a licensee and the Commission must act quickly and that time does not permit the Commission to publish a *Federal Register* notice allowing 30 days for prior public comment, and it also determines that the amendment involves no significant hazards considerations, the Commission may use local media to provide reasonable notice to the public in the area surrounding a licensee's facility of the licensee's amendment and of its proposed determination that no significant hazards consideration is involved, consulting with the licensee on the proposed media release and on the geographical area of its coverage.

The licensee stated that the following timeline relates to the events that prompted the need for this exigent license amendment request.

- On July 3, 2019, 2-LT-68-369, the A channel RVLIS upper level transmitter output was verified by lifting an output and placing a digital multi-meter in line with the loop to measure output current to be consistent with the indication seen on the plant computer as well as 2-LI-68-369 in the main control room (MCR).
- On July 3, 2019, at approximately 0300, the B channel upper RVLIS uncompensated indication (computer point 2L302A, which does not provide indication in the MCR) first came on scale above 64 percent. This was identified while trending data as part of troubleshooting the A channel upper RVLIS. The indicated level did not exceed the 64-67

percent range. The B channel upper RVLIS compensated indication (computer point 2L2304A), which is the signal that provides indication in the MCR, was off scale below 64 percent, which did not impact the range of operability.

- On July 11, 2019, at approximately 0900, maintenance performed 2 SI ICC 068 002.A, "Online Channel Calibration of RVLIS," to verify the calibration of 2-LT-68-369, A channel RVLIS upper transmitter. During the adjustment of the hydraulic isolator for the A channel RVLIS upper transmitter, the B channel RVLIS upper indication experienced a step change. After approximately 20 minutes, the indication stepped back down to its previously indicated level before the step change. This is not an expected response. TVA, Westinghouse, and an independent third party independently concluded this indicates a likely blockage in the common sensing line coming off the reactor head.
- On July 12, 2019, at 1348, the C bank of pressurizer heaters was placed in service. A and B channel RVLIS Upper Indication were observed to be increasing as the RCS pressure increased. This was the expected response for blockage in the common sensing line coming off the reactor head.
- On July 12, 2019, at 1436, following complex troubleshooting, B channel RVLIS was declared inoperable.

The configuration of the affected instrumentation precludes repair at power because the affected equipment is located inside the reactor cavity under the missile shields, which is in an elevated radiological and environmental condition and is not accessible during power operations.

The licensee stated that a forced outage to restore operability of level indicators 2-LI-68-369 and 2-LI-68-372 would result in an unnecessary operational transient to initiate a

plant shutdown. The licensee asserts that shutdown of the plant to restore operability of level indicators 2-LI-68-369 and 2-LI-68-372 is not necessary because alternate actions are available.

As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration using the standards in 10 CFR 50.92. The licensee evaluated the proposed change with regard to the determination of whether or not a significant hazards consideration is involved, as discussed below.

The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously installed. The proposed TS change is to allow operation of SQN Unit 2 for the remainder of Cycle 23 or until the unit enters Mode 5 with both upper range channels of RVLIS inoperable. The upper range channels of RVLIS provide indication only, are utilized post-accident, and do not affect equipment operation. Its failure is also not an accident initiator. With the upper range channels of RVLIS inoperable, other means exist for determining if a void is forming in the vessel head exist. Operators are able to use these means to take appropriate action to mitigate the consequences of an accident. Additionally, in situations where there is a potential for a void to form and the reactor coolant pumps (RCPs) are not operating, procedures provide for the establishment of natural circulation if it is not already occurring. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed amendment will not create the possibility of a new or different kind of accident from any previously analyzed. The proposed TS change is to allow operation of SQN Unit 2 for the remainder of Cycle 23 or until the unit enters Mode 5 with both upper range channels of RVLIS inoperable. The upper range channels of RVLIS provide indication only and do not affect equipment operation. No new operating conditions or modes are created by this

proposed change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment will not involve a significant reduction in a margin of safety. The proposed TS change is to allow operation of SQN Unit 2 for the remainder of Cycle 23 or until the unit enters Mode 5 with both upper range channels of RVLIS inoperable. The upper range channels of RVLIS provide indication only and does not challenge safety systems' operations. The lower range channels remain available to provide indication of adequate core cooling and other indications remain available to identify void formations. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Following an initial review of this application, the requested amendment has been evaluated against the standards in 10 CFR 50.92, and the NRC has made a proposed (preliminary) determination that the requested amendment involves no significant hazards considerations. Operation of Sequoyah, Unit 2, in accordance with the proposed amendment would not significantly increase the probability or consequences of any accident previously considered, nor create the possibility of a new or different kind of accident, nor significantly reduce any margin of safety.

If the proposed determination that the requested exigent license amendment involves no significant hazards consideration becomes final, the NRC will issue the amendment without first offering an opportunity for a public hearing. An opportunity for a hearing will be published in the *Federal Register* at a later date and any hearing request will not delay the effective date of the amendment.

If the NRC decides in its final determination that the requested exigent license amendment does involve a significant hazards consideration, a notice of opportunity for a prior

hearing will be published in the *Federal Register* and, if a hearing is granted, it will be held before the amendment is issued.

Comments on the proposed determination of no significant hazards consideration may be (1) telephoned to Undine Shoop, Chief, Licensing Projects Branch II-2, by collect call to 301-415-2063, or by facsimile to 301-415-2102, (2) e-mailed to Undine.Shoop@nrc.gov, or (3) submitted in writing to Melissa Ralph, Office of Administration, Mail Stop: OWFN-2-A13, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. All comments received by 4:15 p.m. EST on July 18, 2019, will be considered in reaching a final determination. A copy of the application may be examined electronically through the NRC's Agencywide Documents Access and Management System (ADAMS) in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html> by using Accession No. ML19195A002 and at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to pdr.resource@nrc.gov.

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(EPID L-2019-LLA-0149) DATED JULY 15, 2019

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