



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

June 27, 2024

LICENSEE: Tennessee Valley Authority

FACILITY: Watts Bar Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY OF MAY 20, 2024, PUBLIC MEETING WITH TENNESSEE VALLEY AUTHORITY TO DISCUSS A PROPOSED LICENSE AMENDMENT REQUEST REGARDING ADOPTION OF TSTF-276-A, REVISION 2 TO CLARIFY REQUIREMENTS FOR DIESEL GENERATOR TESTING (EPID L-2024-LRM-0068)

On May 20, 2024, the U.S. Nuclear Regulatory Commission (NRC) staff held a preliminary public meeting via teleconference with representatives of the Tennessee Valley Authority (TVA, the licensee) to discuss a proposed license amendment request (LAR) for Watts Bar Nuclear Plant, Units 1 and 2 (Watts Bar). The meeting notice and agenda for this meeting, dated April 24, 2024, are available at Agencywide Documents Access and Management System (ADAMS) Accession No. ML24137A230. The licensee's slides for the meeting are available at ADAMS Accession No. ML24137A287. A list of the meeting attendees is enclosed.

TVA stated that it plans to submit an LAR that would adopt Technical Specification Task Force (TSTF) Traveler TSTF-276-A, Revision 2, "Revise DG [diesel generator] full load rejection test." The proposed LAR would revised Watts Bar TS 3.8.1, "AC [alternating current] Sources – Operating," Surveillance Requirements (SRs) 3.8.1.9, 3.8.1.10, and 3.8.1.14 to eliminate the specification of kVAR [kilo-Volt-Amperes Reactive power] and to specify a power factor of ≤ 0.9 during emergency diesel generator surveillance testing, and revise SR 3.8.1.18 to allow for the surveillance to be performed in Modes 1, 2, 3, or 4 to reestablish operability provided an assessment of plant safety is performed.

The NRC staff noted that TSTF-276-A does not include language regarding kVAR. The staff asked if TVA will note any differences as variations and provide appropriate justification. TVA stated that it will check the TSTF and, if appropriate, will refer to differences as variations. TVA noted that SR 3.8.1.18 is not in TSTF-276-A. The NRC staff also asked if TVA plans to justify why the kVAR value does not need to be in the TS. TVA stated that it would likely include that justification.

TVA described the design and operation of the Watts Bar AC electrical power distribution system. The onsite Class 1E AC distribution system comprises four trains that are shared between the two units, with each train powered by an independent 6.9 kilovolt shutdown board. Each shutdown board has a dedicated onsite DG. TVA noted that each DG must be demonstrated to meet SRs 3.8.1.9 and 3.8.1.18. TVA pointed out that SRs 3.8.1.9, 3.8.1.10, and 3.8.1.14 state that when a DG is synchronized with offsite power for load rejection or endurance and margin testing, the SR shall be performed at a power factor of ≥ 0.8 and ≤ 0.9 . TVA also noted that SR 3.8.1.10 and SR 3.8.1.14 each have a required DG kVAR operating band during performance of the surveillance test. TVA stated that the kVAR requirements in SR

3.8.1.10 and 3.8.1.14 were added during the development of the initial Unit 1 TSs and have never been included in the Standard TSs, and that there are no requirements pertaining to kVAR in Regulatory Guide 1.9, "Application and Testing of Safety-Related Diesel Generators in Nuclear Power Plants."

TVA explained that when a DG is synchronized with offsite power, a power factor of ≤ 0.9 is representative of the inductive loading the DG would experience under design-basis accident conditions; however, when the DG is not synchronized with offsite power, power factor is determined by plant load and cannot be adjusted. TVA noted that under certain grid conditions, the specified power factor may not be achievable. The proposed change would allow the surveillances to be performed at a power factor as close as practicable to 0.9. The NRC staff suggested that TVA include the power factor with engineered safety feature loads in the LAR.

To confirm that the proposed power factor of ≤ 0.9 represents a worst-case power factor for Watts Bar, TVA performed a review of the calculated power factors for each DG during the limiting event of a loss of offsite power coincident with a loss-of-coolant accident. The review confirmed that the application of a ≤ 0.9 power factor is appropriate for Watt Bar.

Regarding SR 3.8.1.18, the current Note states that this surveillance shall not be performed in Mode 1, 2, 3, or 4 and that credit may be taken for unplanned events that satisfy this SR. TVA stated that the proposed change would allow performance of the surveillance in Mode 1, 2, 3, or 4 to reestablish operability provided an assessment of plant safety is performed. Plant safety will be measured against the avoided risk of a plant shutdown and startup. The NRC staff asked TVA to clarify the term "plant safety assessment." TVA confirmed that the term means "risk assessment."

The NRC staff pointed that the Note in SR 3.8.1.8 uses the term "normally"; the SR Note states, in part, "...this Surveillance shall not normally be performed in MODE 1 or 2." The staff suggested that TVA may want to consider the use of the term "normally" in the proposed Note for SR 3.8.1.18.

TVA plans to submit the LAR by June 28, 2024.

No regulatory decisions were made at this meeting.

No comments or public meeting feedback forms were received.

Please direct any inquiries to me at 301-415-1627 or Kimberly.Green@nrc.gov.

/RA/

Kimberly J. Green, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-390 and 50-391

Enclosure: List of Attendees

cc: Listserv

LIST OF ATTENDEES

MAY 20, 2024, TELECONFERENCE WITH TENNESSEE VALLEY AUTHORITY
PROPOSED LICENSE AMENDMENT REQUEST REGARDING ADOPTION OF TSTF-276-A,
REVISION 2, TO CLARIFY REQUIREMENTS FOR DIESEL GENERATOR TESTING
FOR WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2

Name	Organization
Kim Green	U.S. Nuclear Regulatory Commission (NRC)
Vijay Goel	NRC
Adakou Foli	NRC
Clint Ashley	NRC
Wendell Morton	NRC
Robert Wehrmann	NRC
Shawna Hughes	Tennessee Valley Authority (TVA)
Russ Wells	TVA
Jesse Baron	TVA
Joyce Artis	TVA
James Edmonds	TVA
Travis Purser	TVA

SUBJECT: SUMMARY OF MAY 20, 2024, PUBLIC MEETING WITH TENNESSEE VALLEY AUTHORITY TO DISCUSS A PROPOSED LICENSE AMENDMENT REQUEST REGARDING ADOPTION OF TSTF-276-A, REVISION 2 TO CLARIFY REQUIREMENTS FOR DIESEL GENERATOR TESTING (EPID L-2024-LRM-0068) DATED JUNE 27, 2024

DISTRIBUTION:

PUBLIC	VGoel, NRR
RidsACRS_MailCTR Resource	AFoli, NRR
RidsNrrDorlLpl2-2 Resource	CAshley, NRR
RidsNrrPMWatts Bar Resource	ARamirez, NRR
RidsNrrLAABaxter Resource	JHoellman, NRR
RidsRgn2MailCenter Resource	JHernandez Munoz, NRR
RidsNrrDorl Resource	FGaskins, OEDO
RidsNrrDssStsb Resource	TKeene, OEDO
RidsNrrDexEeeb Resource	DGasperson, RII

ADAMS Accession Nos.:
ML24173A214 (Package)
ML24173A212 (Meeting Summary)
ML24130A230 (Meeting Notice)
ML24137A287 (Slides)

OFFICE	NRR/DORL/LPL2-2/PM	NRR/DORL/LPL2-2/LA	NRR/DORL/LPL2-2/BC	NRR/DORL/LPL2-2/PM
NAME	KGreen	ABaxter	DWrona	KGreen
DATE	06/21/24	06/26/24	06/27/24	06/27/24

OFFICIAL RECORD COPY