



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

CNL-19-092

October 9, 2019

10 CFR 50.90

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

Watts Bar Nuclear Plant, Units 1 and 2  
Facility Operating License Nos. NPF-90 and NPF-96  
Docket Nos. 50-390 and 50-391

Subject: **Supplement to Application to Revise Watts Bar Nuclear Plant, Units 1 and 2, Technical Specifications 3.8.1, 3.8.7, 3.8.8, and 3.8.9, Regarding Electrical Power Systems (WBN-TS-18-08) (L-2018-LLA-0492)**

- References:
1. TVA letter to NRC, CNL-18-119, "Application to Revise Watts Bar Nuclear Plant, Units 1 and 2, Technical Specifications 3.8.1, 3.8.7, 3.8.8, and 3.8.9, Regarding Electrical Power Systems (WBN-TS-18-08)," dated November 26, 2018 (ML18345A085)
  2. TVA letter to NRC, CNL-19-050, "Response to NRC Request for Additional Information Regarding Application to Revise Watts Bar Nuclear Plant, Units 1 and 2, Technical Specifications 3.8.1, 3.8.7, 3.8.8, and 3.8.9, Regarding Electrical Power Systems (WBN-TS-18-08) (EPID L-2018-LLA-0492)," dated May 13, 2019 (ML19134A233)
  3. NRC letter to TVA, "Watts Bar Nuclear Plant, Units 1 and 2- Issuance of Amendments Regarding Technical Specification Changes Pertaining to 120-Volt Alternating Current Vital Buses (EPID L-2018-LLA-0050)," dated June 7, 2019 (ML19098A774)

In Reference 1, Tennessee Valley Authority (TVA) submitted a request for an amendment to the Technical Specifications (TS) for the Watts Bar Nuclear Plant (WBN), Units 1 and 2. The proposed amendment revises the WBN Unit 1 and Unit 2 TS 3.8.1, "AC Sources-Operating," TS 3.8.7, "Inverters - Operating," TS 3.8.8, "Inverters - Shutdown," and TS 3.8.9, "Distribution Systems - Operating," to support performance of the 6.9 kiloVolt (kV) and 480 Volt (V) shutdown board (SDBD) maintenance. In Reference 2, TVA responded to a Nuclear Regulatory Commission (NRC) request for additional information (RAI).


Subsequent to Reference 1, the NRC issued license amendments 126/29 (Reference 3) for WBN Units 1 and 2, respectively, which in part revised WBN Units 1 and 2 TS 3.8.9. Because Reference 1 also revises WBN Units 1 and 2 TS 3.8.9, TVA is supplementing Reference 1 to provide revised mark-ups for WBN Units 1 and 2 TS 3.8.9 to reflect the changes approved by the NRC in Reference 3. The enclosure to this letter contains the revised TS 3.8.9 mark-ups. The remaining TS mark-ups in Reference 1 are unaffected by Reference 3.

The enclosure to this letter does not change the no significant hazard considerations or the environmental considerations contained in Reference 1. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and the enclosure to the Tennessee Department of Environment and Conservation.

There are no new regulatory commitments associated with this submittal. Please address any questions regarding this request to Kimberly D. Hulvey at (423) 751-3275.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 9th day of October 2019.

Respectfully,



James T. Polickoski  
Director, Nuclear Regulatory Affairs

Enclosure: Revised Markups of Technical Specification 3.8.9

cc (Enclosure)

NRC Regional Administrator – Region II  
NRC Project Manager – Watts Bar Nuclear Plant  
NRC Senior Resident Inspector – Watts Bar Nuclear Plant  
Director, Division of Radiological Health – Tennessee State Department of  
Environment and Conservation

**Enclosure**

**Revised Markups of Technical Specification 3.8.9**

### 3.8 ELECTRICAL POWER SYSTEMS

#### 3.8.9 Distribution Systems - Operating

LCO 3.8.9 Train A and Train B AC, four channels of vital DC, and four channels of AC vital bus electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more AC electrical power distribution subsystems inoperable, <u>due to one or more Unit 1 AC shutdown boards inoperable.</u>	A.1 Restore <u>Unit 1</u> AC electrical power distribution subsystem to OPERABLE status.	8 hours  <u>AND</u>  16 hours from discovery of failure to meet LCO
B. One or more AC vital buses in one channel inoperable for reasons other than Condition C.	B.1 Restore AC vital bus(es) to OPERABLE status.	2 hours  <u>AND</u>  16 hours from discovery of failure to meet LCO
<p>-----NOTES-----</p> <p>1. Only applicable during planned maintenance of AC vital bus 2-I, 2-II, 2-III, or 2-IV.</p> <p>2. Only applicable when Unit 2 is in MODE 5, MODE 6, or defueled.</p> <p>-----</p>		
C. AC vital bus 2-I, 2-II, 2-III, or 2-IV inoperable.	C.1 Restore AC vital bus to OPERABLE status.	8 hours

(continued)

ACTIONS (continued)

CONDITION		REQUIRED ACTION	COMPLETION TIME
D.	One or more vital DC electrical power distribution buses inoperable.	D.1 Restore DC electrical power distribution bus to OPERABLE status.	2 hours  AND  16 hours from discovery of failure to meet LCO
-----NOTES----- 1. Only applicable during planned maintenance of a Unit 2 AC electrical power distribution subsystem.  2. Only applicable when Unit 2 is defueled. -----			
E.	One or more AC electrical power distribution subsystems inoperable due to one or more Unit 2 AC shutdown boards inoperable.	E.1 Declare associated required feature(s) inoperable.	<u>Immediately</u>
F.	One or more AC electrical power distribution subsystems inoperable due to one or more Unit 2 AC shutdown boards inoperable for reasons other than Condition E.	F.1 Restore Unit 2 AC electrical power distribution subsystem(s) to OPERABLE status.	<u>24 hours</u>
EG.	Required Action and associated Completion Time not met.	EG.1 Be in MODE 3.  AND  EG.2 Be in MODE 5.	6 hours    36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<del>F</del> H. Two trains with one or more inoperable distribution subsystems that result in a loss of safety function.	<del>F</del> H.1 Enter LCO 3.0.3	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.9.1 Verify correct breaker alignments and voltage to required AC, vital DC, and AC vital bus electrical power distribution subsystems.	7 days

### 3.8 ELECTRICAL POWER SYSTEMS

#### 3.8.9 Distribution Systems - Operating

LCO 3.8.9 Train A and Train B AC, four channels of vital DC, and four channels of AC vital bus electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more AC electrical power distribution subsystems inoperable <u>due to one or more Unit 2 AC shutdown boards inoperable.</u>	A.1 Restore <u>Unit 2 AC</u> electrical power distribution subsystem to OPERABLE status.	8 hours  <u>AND</u> 16 hours from discovery of failure to meet LCO
B. One or more AC vital buses in one channel inoperable for reasons other than Condition C.	B.1 Restore AC vital bus(es) to OPERABLE status.	2 hours  <u>AND</u> 16 hours from discovery of failure to meet LCO
<p>-----NOTES-----</p> <p>1. Only applicable during planned maintenance of AC vital bus 1-I, 1-II, 1-III, or 1-IV.</p> <p>2. Only applicable when Unit 1 is in MODE 5, MODE 6, or defueled.</p> <p>-----</p> <p>C. AC vital bus 1-I, 1-II, 1-III, or 1-IV inoperable.</p>	C.1 Restore AC vital bus to OPERABLE status.	8 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more vital DC electrical power distribution buses inoperable.	D.1 Restore DC electrical power distribution bus to OPERABLE status.	2 hours  <u>AND</u>  16 hours from discovery of failure to meet LCO
<p>-----NOTES-----</p> <p>1. <u>Only applicable during planned maintenance of a Unit 1 AC electrical power distribution subsystem.</u></p> <p>2. <u>Only applicable when Unit 1 is defueled.</u></p> <p>-----</p> <p>E. <u>One or more AC electrical power distribution subsystems inoperable due to one or more Unit 1 AC shutdown boards inoperable.</u></p>	E.1 <u>Declare associated require feature(s) inoperable.</u>	<u>Immediately</u>
F. <u>One or more AC electrical power distribution subsystems inoperable due to one or more Unit 1 AC shutdown boards inoperable for reasons other than Condition E.</u>	F.1 <u>Restore Unit 1 AC electrical power distribution subsystem(s) to OPERABLE status.</u>	<u>24 hours</u>
<del>E.G.</del> Required Action and associated Completion Time not met.	<del>E.G.</del> 1 Be in MODE 3.  <del>E.G.</del> 2 Be in MODE 5.	6 hours  36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<del>F</del> H. Two trains with one or more inoperable distribution subsystems that result in a loss of safety function.	<del>F</del> H.1 Enter LCO 3.0.3	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.9.1      Verify correct breaker alignments and voltage to required AC, vital DC, and AC vital bus electrical power distribution subsystems.	7 days