



1101 Market Street, Chattanooga, Tennessee 37402

CNL-22-007

April 6, 2022

10 CFR 50.90

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

Browns Ferry Nuclear Plant, Units 1, 2, and 3  
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68  
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **Browns Ferry Nuclear Plant, Units 1, 2, and 3 - Supplement to Application Requesting NRC Prior Approval of a Proposed Chilled-Water Cross-tie Modification to Support System Operability (BFN-TS-518) (EPID L-2021-LLA-0203)**

- References:
1. TVA Letter to NRC, CNL-21-020, "Browns Ferry Nuclear Plant, Units 1, 2, and 3 - Application Requesting NRC Prior Approval of a Proposed Chilled Water Crosstie Modification to Support System Operability," dated November 5, 2021 (ML21309A038)
  2. NRC Electronic Mail to TVA, "Acceptance Review Results for Browns Ferry Nuclear Plant, Units 1, 2, and 3, License Amendment Request to Revise TS 3.8.7 for Installation of the Control Bay Chiller Cross-Tie," dated December 9, 2021 (ML21349A226)

In Reference 1, Tennessee Valley Authority (TVA) submitted a request for an amendment to Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68 for Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, respectively. The amendment proposes the use of a cross-tie between the BFN Unit 3 chilled water system and the BFN Units 1 and 2 chilled water system supplying the electrical board room (EBR) air handling units. The use of the cross-tie will support operability of the BFN Units 1 and 2 EBR air conditioning systems and their supported electrical equipment.

In Reference 2, the Nuclear Regulatory Commission (NRC) issued the results of its decision accepting the requested amendment for review. Accompanying its decision, the NRC provided comments that require TVA response during the NRC's more detailed review of the application. The enclosure to this letter provides TVA's responses to those comments.

Attachment 1 to the enclosure has been provided in response to NRC Comment 1 of Reference 2. In response to NRC Comments 3 and 4 of Reference 2, TVA has provided updated proposed TS markups in Attachment 2 of the enclosure and retyped TS pages in Attachment 3. Attachments 2 and 3 of this submittal replace Attachments 2 and 3 of Reference 1 in their entirety.

This letter does not change the no significant hazards consideration, 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 Alabama Department of Public Health.

There are no new regulatory commitments contained in this letter. If you have any questions regarding this submittal, please contact Stuart L. Rymer, Senior Manager, Fleet Licensing at [slymer@nrc.gov](mailto:slymer@nrc.gov).

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 6th day of April 2022.

Respectfully,



Digitally signed by Rearden, Pamela  
S  
Date: 2022.04.06 16:08:03 -04'00'

James Barstow  
Vice President, Nuclear Regulatory Affairs & Support Services

Enclosure:

Response to NRC Acceptance Review Comments

cc:

NRC Regional Administrator – Region II  
NRC Senior Resident Inspector – Browns Ferry Nuclear Plant  
NRC Project Manager – Browns Ferry Nuclear Plant  
State Health Officer, Alabama Department of Public Health

## Enclosure

### Response to NRC Acceptance Review Comments

On December 9, 2021, the Nuclear Regulatory Commission (NRC) provided its acceptance for review for Tennessee Valley Authority's (TVA) license amendment request submitted in Reference 1. In the NRC's email communicating its acceptance, the following comments were provided:

*...during the staff's acceptance review, it identified the need for the following additional information, which are not considered sufficiency items:*

- *TS Bases (mark-up) pages were not provided (Note that in the Table of Contents for the Enclosure, Attachment 3's title indicates that Bases pages are included; however, Attachment 3 contains clean TS pages). The NRC staff notes that while 10 CFR 50.36(a)(1) does not explicitly describe the acceptable format of the required "bases or reasons for such specifications," submission of Bases pages is one way to satisfy 10 CFR 50.36(a)(1).*
- *Clarification on whether the compensatory actions listed in the LAR will only be taken during the cross-tie installation period (2 days) or also during the testing period (7 days)*
- *Explanation of why the proposed wording modifying the existing Conditions and for new Condition I (Unit 1) and Condition J (Units 2 and 3) does not include language accounting for testing of the cross-tie*
- *Addition of a time limit or refueling outage date for the proposed Note for new Conditions I and J*

Below is additional information TVA is providing to address the comments above. In response to NRC Comments 3 and 4 of Reference 2, TVA has provided updated proposed technical specifications (TS) markups in Attachment 2 of the enclosure and retyped TS pages in Attachment 3. Attachments 2 and 3 of this submittal replace Attachments 2 and 3 of Reference 1 in their entirety.

#### **NRC Comment 1**

*TS Bases (mark-up) pages were not provided (Note that in the Table of Contents for the Enclosure, Attachment 3's title indicates that Bases pages are included; however, Attachment 3 contains clean TS pages). The NRC staff notes that while 10 CFR 50.36(a)(1) does not explicitly describe the acceptable format of the required "bases or reasons for such specifications," submission of Bases pages is one way to satisfy 10 CFR 50.36(a)(1).*

#### **TVA Response**

Attachment 3 of the license amendment request in Reference 1 was mislabeled in the Table of Contents. A condition report has been added to the TVA Corrective Action Program to track this issue. TS Bases pages were not initially intended to be included because the permanent change to the licensing basis is related to the Updated Final Safety Analysis Report regarding sharing of systems among units, and the Technical Specifications (TS) are only affected regarding installation and testing of the modification. However, Attachment 1 to this enclosure, provided for information only, contains TS Bases pages for Unit 1 marked to indicate the proposed changes. The changes for Units 2 and 3 are similar except for the letter identifiers for the conditions.

**NRC Comment 2**

*Clarification on whether the compensatory actions listed in the LAR will only be taken during the cross-tie installation period (2 days) or also during the testing period (7 days)*

**TVA Response**

The compensatory actions listed in the license amendment request in Reference 1 will be taken during both the cross-tie installation period (2 days) and the testing period (7 days) for a total of 9 days.

**NRC Comment 3**

*Explanation of why the proposed wording modifying the existing Conditions and for new Condition I (Unit 1) and Condition J (Units 2 and 3) does not include language accounting for testing of the cross-tie.*

**TVA Response**

Attachment 2 to this enclosure provides updated proposed TS pages marked up to show that the one-time use TS change applies to both installation and testing. Other changes were also made to improve readability without changing the operation or intent of the TS change.

**NRC Comment 4**

*Addition of a time limit or refueling outage date for the proposed Note for new Conditions I and J*

**TVA Response**

As shown in the attachments to this enclosure, an expiration date of October 1, 2025, was added for the one-time use TS change. This allows two full fiscal years after approval of the proposed license amendment to implement the design modification.

**References**

1. TVA Letter to NRC, CNL-21-020, "Browns Ferry Nuclear Plant, Units 1, 2, and 3 - Application Requesting NRC Prior Approval of a Proposed Chilled Water Crosstie Modification to Support System Operability," dated November 5, 2021 (ML21309A038)
2. NRC Electronic Mail to TVA, "Acceptance Review Results for Browns Ferry Nuclear Plant, Units 1, 2, and 3, License Amendment Request to Revise TS 3.8.7 for Installation of the Control Bay Chiller Cross-Tie," dated December 9, 2021 (ML21349A226)

Attachment 1

Proposed Technical Specification Bases Changes for Unit 1

(Markups)

BASES (continued)

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ACTIONS

A.1

for reasons other  
than Condition I,



With one Unit 1 and 2 4.16 kV shutdown board inoperable, the remaining Unit 1 and 2 4.16 kV shutdown boards are capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition. The overall reliability is reduced, however, because another single failure in the remaining three 4.16 kV shutdown boards could result in the minimum required ESF functions not being supported. Therefore, the 4.16 kV shutdown board must be restored to OPERABLE status within 5 days.

The 5 day time limit before requiring a unit shutdown in this Condition is acceptable because the remaining 4.16 kV shutdown boards have AC power available, and the probability of an event in conjunction with a single failure of a redundant component in the 4.16 kV shutdown board with AC power is low. (The redundant component is verified OPERABLE in accordance with Specification 5.5.11, "Safety Function Determination Program (SFDP).")

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(continued)

BASES

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ACTIONS  
(continued)

A.2

for reasons other than Condition I,



With a shutdown board inoperable, the associated DG would have no power distribution mechanism and would hence also be inoperable. Required actions for an inoperable DG are included in LCO 3.8.1.

B.1

for reasons other than Condition I,



With one Unit 1 480 V shutdown board inoperable, the remaining 480 V shutdown board is capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition assuming no single failure. The overall reliability is reduced because a single failure in the remaining 480 V shutdown board could result in the minimum required ESF functions not being supported. Therefore, the inoperable 480 V shutdown board must be restored to OPERABLE status within 8 hours. This condition also bounds the inoperability of 480 V RMOV boards 1A or 1B.

The Condition B postulated worst case scenario is one division (480 V shutdown board) without AC power (i.e., no offsite power to the division and the associated DG inoperable). In this condition, the unit is more vulnerable to a complete loss of AC power. It is, therefore, imperative that the unit operators' attention be focused on minimizing the potential for loss of power to the remaining division by stabilizing the unit, and on restoring power to the affected division. The 8 hour time period before requiring a unit shutdown is acceptable because:

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(continued)

BASES

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ACTIONS

C.1 (continued)

The second Completion Time (12 days) for Required Action C.1 establishes a limit on the maximum time allowed for any combination of required distribution subsystems to be inoperable in any single contiguous occurrence of failing to meet the LCO. If Condition C is entered while, for instance, a 4.16 kV shutdown board is inoperable and subsequently restored OPERABLE, the LCO may already have been not met for up to 5 days. This situation could lead to a total duration of 10 days, since initial failure of the LCO, to restore the 480 V DG auxiliary board. At this time, a 4.16 kV shutdown board could again become inoperable, and the 480 V DG auxiliary board could be restored OPERABLE. This could continue indefinitely.

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This allowance results in establishing the "time zero" at the time the LCO was initially not met, instead of at the time Condition C was entered. The 12 day Completion Time is an acceptable limitation on this potential of failing to meet the LCO indefinitely.

D.1

for reasons other than Condition I,

With one Unit DC board or one Unit 1 and 2 Shutdown Board DC Distribution Panel inoperable, the remaining boards are capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition, assuming no single failure. The overall reliability is reduced, however, because a single failure in the remaining boards could result in the minimum required ESF functions not being supported. Therefore, the required Unit DC board or Unit 1 and 2 Shutdown Board DC Distribution Panel must be restored to OPERABLE status within 7 days by powering it from the associated battery or charger. This condition also bounds the inoperability of 250 V RMOV boards 1A, 1B, or 1C.

(continued)



BASES

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ACTIONS

D.1 (continued)

This Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This allowance results in establishing the "time zero" at the time the LCO was initially not met, instead of at the time Condition D was entered. The 12 day Completion Time is an acceptable limitation on this potential of failing to meet the LCO indefinitely.

E.1

for reasons other than Condition I,



With one division of 4.16 kV shutdown boards inoperable, the remaining division of shutdown boards is capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition assuming no single failure. The overall reliability is reduced because a single failure in the remaining 4.16 kV shutdown boards could result in the minimum required ESF functions not being supported.

Therefore, one of the inoperable 4.16 kV shutdown boards must be restored to OPERABLE status within 8 hours.

The Condition E postulated worst case scenario is one division of 4.16 kV shutdown board without AC power (i.e., no offsite power to the division and the associated DGs inoperable). In this condition, the unit is more vulnerable to a complete loss of AC power. It is, therefore, imperative that the unit operators' attention be focused on minimizing the potential for loss of power to the remaining division by stabilizing the unit, and on restoring power to the affected division. The 8 hour time period before requiring a unit shutdown is acceptable because:

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(continued)

BASES

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ACTIONS

E.1 (continued)

Pursuant to LCO 3.0.6, the Distribution System Actions B, C, or F would not be entered even if the 4.16 kV shutdown boards were inoperable, resulting in de-energization of a 480 V board. Therefore, the Required Actions of Condition E are modified by a Note to indicate that when Condition E is entered with no AC source to the 4.16 kV shutdown boards, Actions B, C, or F must be immediately entered. This allows Condition E to provide requirement for the loss of the 4.16 kV shutdown boards without regard to whether 480 V board is de-energized. Actions B, C, or F provide the appropriate restrictions for a de-energized 480 V board.

F.1

, for reasons other than Condition I,



Required Action F.1 is intended to provide assurance that a loss of one or more required Unit 2 or 3 AC or DC boards does not result in a complete loss of safety function of critical systems (i.e., SGT or CREVS). With one or more of the required boards inoperable, the SGT or CREVS train supported by each affected board is inoperable. Therefore, the associated SGT or CREVS subsystem must be declared inoperable immediately, and the ACTIONS in the appropriate system Specification taken.

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(continued)

BASES

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ACTIONS  
(continued)

G.1 and G.2

If the inoperable distribution subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

H.1

for reasons other than Condition I,

INSERT 1

Condition H corresponds to a level of degradation in the electrical distribution system that causes a required safety function to be lost. When more than one AC or DC electrical power distribution subsystem is lost, and this results in the loss of a required function, the plant is in a condition outside the accident analysis. Therefore, no additional time is justified for continued operation. LCO 3.0.3 must be entered immediately to commence a controlled shutdown.

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SURVEILLANCE  
REQUIREMENTS

SR 3.8.7.1

This Surveillance verifies that the AC and DC electrical power distribution subsystem is functioning properly, with the buses energized. The verification of proper voltage availability on the buses ensures that the required power is readily available for motive as well as control functions for critical system loads connected to these buses. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

(continued)

## INSERT 1

### I.1

Condition I is preceded by a note stating that the Condition is only applicable when the compensatory actions of Section 3 of the enclosure to Reference 5 are taken and on a one-time basis for installation and testing of the Unit 3 Control Bay Chiller Cross-tie before October 1, 2025. This Condition, where two or more electrical power distribution subsystems are inoperable due to installation and testing of the Unit 3 Control Bay Chiller Cross-tie, provides 9 days to restore the affected electrical power distribution subsystems to OPERABLE status. In this Condition the equipment in the Unit 1 and Unit 2 electrical board rooms are considered not OPERABLE because chilled water will be isolated from the air handling units in those rooms. Without chilled water to those air handling units during a design basis accident, the temperature in the Unit 1 and Unit 2 electrical board rooms would eventually increase above design limits.

While not OPERABLE, the electrical power distribution subsystems are able to perform their safety function until the temperature in the Unit 1 and Unit 2 electrical board rooms exceed the design limits. At that point, the expected service life of equipment in those rooms are shortened by the increased temperatures. Given the most limiting boardroom reaches the design-limit temperature in approximately 24 hours with no mitigating actions taken, there is sufficient time during installation to restore the chilled water to the Unit 1 and Unit 2 electrical board room air handling units to prevent the temperature in the Unit 1 and Unit 2 electrical board rooms from reaching the design limits. Likewise, during testing and flow balancing of Unit 3 Control Bay Chiller Cross-tie, there is ample time to restore Unit 1/2 chilled water to the Unit 1 and Unit 2 electrical board room air handling units to prevent temperatures in the Unit 1 and Unit 2 electrical board rooms from reaching design limits.

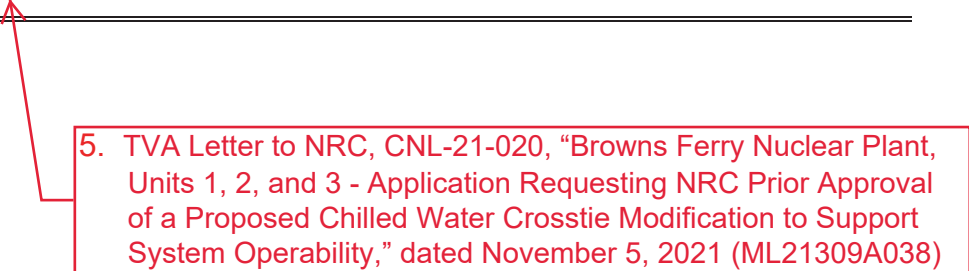
Compensatory measures listed in TVA letter CNL-21-020 will be taken during installation and testing to reduce the risk of plant transients and the loss of offsite power.

BASES (continued)

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REFERENCES

1. FSAR, Chapter 6.
  2. FSAR, Chapter 14.
  3. Regulatory Guide 1.93, December 1974.
  4. NRC No. 93-102, "Final Policy Statement on Technical Specification Improvements," July 23, 1993.
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5. TVA Letter to NRC, CNL-21-020, "Browns Ferry Nuclear Plant, Units 1, 2, and 3 - Application Requesting NRC Prior Approval of a Proposed Chilled Water Crosstie Modification to Support System Operability," dated November 5, 2021 (ML21309A038)

Attachment 2  
Proposed Technical Specification Pages  
(Markups)

**ACTIONS**

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One Unit 1 and 2 4.16 kV Shutdown Board inoperable.</p> <div data-bbox="198 697 483 1045" style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross-tie when the compensatory actions of TVA letter CNL-21-020 are taken.</p> </div> <p>Condition I.</p>	<p>-----NOTE----- Enter applicable Conditions and Required Actions of Condition B, C, and F when Condition A results in no power source to a required 480 volt board. -----</p> <p>A.1 Restore the Unit 1 and 2 4.16 kV Shutdown Board to OPERABLE status.</p> <p>AND</p> <p>A.2 Declare associated diesel generator inoperable.</p>	<p>5 days AND 12 days from discovery of failure to meet LCO  Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One Unit 1 480 V Shutdown Board inoperable.</p> <p>OR</p> <p>480 V RMOV Board 1A inoperable.</p> <p>OR</p> <p>480 V RMOV Board 1B inoperable.</p>	<p>B.1 Restore Board to OPERABLE status.</p> <div data-bbox="743 646 1159 884" style="border: 1px solid red; padding: 5px; margin: 10px 0;"> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross-tie when the compensatory actions of TVA letter CNL 21-020 are taken.</p> </div> <p>Condition I.</p>	<p>8 hours</p> <p>AND</p> <p>12 days from discovery of failure to meet LCO</p>
<p>C. One Unit 1 and 2 DG Auxiliary Board inoperable.</p>	<p>C.1 Restore Unit 1 and 2 DG Auxiliary Board to OPERABLE status.</p>	<p>5 days</p> <p>AND</p> <p>12 days from discovery of failure to meet LCO</p>

(continued)



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. One Unit DC Board inoperable.</p> <p>OR</p> <p>One Unit 1 and 2 Shutdown Board DC Distribution Panel inoperable.</p> <p>OR</p> <p>250 V DC RMOV Board 1A inoperable.</p> <p>OR</p> <p>250 V DC RMOV Board 1B inoperable.</p> <p>OR</p> <p>250 V DC RMOV Board 1C inoperable.</p>	<p>D.1 Restore required Board or Shutdown Board DC Distribution Panel to OPERABLE status.</p>          <p>Condition I.</p>	<p>7 days</p> <p>AND</p> <p>12 days from discovery of failure to meet LCO</p>

for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21-020 are taken.

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. Unit 1 and 2 4.16kV Shutdown Board A and B inoperable.</p> <p>OR</p> <p>Unit 1 and 2 4.16 kV Shutdown Board C and D inoperable.</p>	<p>-----NOTE-----</p> <p>Enter applicable conditions and required actions of Condition B, C, and F when Condition E results in no power source to a required 480 volt board.</p> <p>-----</p> <p>E.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p>AND</p> <p>12 days from discovery of failure to meet LCO</p>
<p>F. One or more required Unit 2 or 3 AC or DC Boards inoperable.</p>	<p>F.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>G. Required Action and associated Completion Time of Condition A, B, C, D, or E not met.</p>	<p>G.1 Be in MODE 3.</p> <p>AND</p> <p>G.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>H. Two or more electrical power distribution subsystems inoperable that result in a loss of function.</p>	<p>H.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.

, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.

Condition I.

Condition I.

Insert 1

Condition I.

INSERT 1

<p>-----NOTE----- Only applicable on a one-time basis for installation and testing the Unit 3 Control Bay Chiller Cross-tie. -----</p> <p>I. Two or more electrical power distribution subsystems inoperable due to installation of the Unit 3 Control Bay Chiller Cross-tie when the compensatory actions of TVA letter CNL 21-020 are taken.</p>	<p>I.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p> <p>when the compensatory actions for TVA letter CNL-21-020 are taken and</p> <p>before October 1, 2025.</p> <p>and testing</p>	<p>9 days</p>
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**ACTIONS**

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One Unit 1 and 2 4.16 kV Shutdown Board inoperable:</p> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21-020 are taken.</p> </div> <p>Condition J.</p>	<p style="text-align: center;"><u>NOTE</u></p> <p>Enter applicable Conditions and Required Actions of Condition B, C, D, and G when Condition A results in no power source to a required 480 volt board.</p> <hr/> <p>A.1 Restore the Unit 1 and 2 4.16 kV Shutdown Board to OPERABLE status.</p> <p style="text-align: center;"><u>AND</u></p> <p>A.2 Declare associated diesel generator inoperable.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p> <p><u>AND</u></p> <p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One Unit 2 480 V Shutdown Board inoperable.</p> <p><u>OR</u></p> <p>480 V RMOV Board 2A inoperable.</p> <p><u>OR</u></p> <p>480 V RMOV Board 2B inoperable.</p>	<p>-----NOTE-----</p> <p>Enter Condition C when Condition B results in no power source to 480 volt RMOV board 2D or 2E.</p> <hr/> <p>B.1 Restore Board to OPERABLE status.</p> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.</p> <p>Condition J.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>C. Unit 2 480 V RMOV Board 2D inoperable.</p> <p><u>OR</u></p> <p>Unit 2 480 V RMOV Board 2E inoperable.</p>	<p>C.1 Declare the affected RHR subsystem inoperable.</p> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.</p> <p>Condition J.</p>	<p>Immediately</p>
<p>D. One Unit 1 and 2 DG Auxiliary Board inoperable.</p>	<p>D.1 Restore Unit 1 and 2 DG Auxiliary Board to OPERABLE status.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. One Unit DC Board inoperable:</p> <p><u>OR</u></p> <p>One Unit 1 and 2 Shutdown Board DC Distribution Panel inoperable:</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2A inoperable:</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2B inoperable:</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2C inoperable:</p>	<p>E.1 Restore required Board or Shutdown Board DC Distribution Panel to OPERABLE status.</p> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross-tie when the compensatory actions of TVA letter CNL 21-020 are taken.</p> </div> <p>Condition J.</p>	<p>7 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Unit 1 and 2 4.16 kV Shutdown Board A and B inoperable.</p> <p><u>OR</u></p> <p>Unit 1 and 2 4.16 kV Shutdown Board C and D inoperable.</p>	<p>-----NOTE-----</p> <p>Enter applicable conditions and required actions of Condition B, C, D, and G when Condition F results in no power source to a required 480 volt board.</p> <hr/> <p>F.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>G. One or more required Unit 1 or 3 AC or DC Boards inoperable.</p>	<p>G.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>H. Required Action and associated Completion Time of Condition A, B, D, E, or F not met.</p> <p>F, or J not met.</p>	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>I. Two or more electrical power distribution subsystems inoperable that result in a loss of function.</p>	<p>I.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>
<p>Insert 2</p>	<p>Condition J.</p>	

, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.

Condition J.

, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.

Condition J.

INSERT 2

<p>-----NOTE----- Only applicable on a one-time basis for installation and testing the Unit 3 Control Bay Chiller Cross-tie</p> <p>J. Two or more electrical power distribution subsystems inoperable due to installation of the Unit 3 Control Bay Chiller Cross-tie. <del>when the compensatory actions of TVA letter CNL 21 020 are taken.</del></p>	<p>J.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p> <p>when the compensatory actions for TVA letter CNL-21-020 are taken and</p> <p>before October 1, 2025.</p> <p>and testing</p>	<p>9 days</p>
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ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Unit 3 4.16 kV Shutdown Board 3EA and 3EB inoperable.</p> <p><u>OR</u></p> <p>Unit 3 4.16 kV Shutdown Board 3EC and 3ED inoperable.</p> <div data-bbox="237 709 686 940" style="border: 1px solid red; padding: 2px; color: red;"> <p>, for reasons other than installation of the Unit 3 Control Bay Chiller Cross tie when the compensatory actions of TVA letter CNL 21 020 are taken.</p> </div> <p>Condition J.</p>	<p style="text-align: center;"><u>NOTE</u></p> <p>Enter applicable conditions and required actions of Condition B, C, D, and G when Condition F results in no power source to a required 480 volt board.</p> <hr/> <p>F.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>G. One or more required Unit 1 or 2 AC or DC Boards inoperable.</p>	<p>G.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>H. Required Action and associated Completion Time of Condition A, B, D, E, or F not met.</p> <div data-bbox="318 1346 605 1388" style="border: 1px solid red; padding: 2px; color: red;"> <p>F, or J not met.</p> </div>	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>I. Two or more electrical power distribution subsystems inoperable that result in a loss of function.</p>	<p>I.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

INSERT 3

INSERT 3

<p>-----NOTE----- Only applicable on a one-time basis for installation and testing the Unit 3 Control Bay Chiller Cross-tie -----</p> <p>J. Two or more electrical power distribution subsystems inoperable due to installation of the Unit 3 Control Bay Chiller Cross-tie. <del>when the compensatory actions of TVA letter CNL 21 020 are taken.</del></p>	<p>J.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p> <p>when the compensatory actions for TVA letter CNL-21-020 are taken and</p> <p>before October 1, 2025.</p> <p>and testing</p>	<p>9 days</p>
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Attachment 3  
Proposed Technical Specification Pages  
(Retyped)

- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. \_\_\_\_\_, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 234 to Facility Operating License DPR-33, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 234. For SRs that existed prior to Amendment 234, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 234.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One Unit 1 and 2 4.16 kV Shutdown Board inoperable, for reasons other than Condition I.</p>	<p>-----NOTE----- Enter applicable Conditions and Required Actions of Condition B, C, and F when Condition A results in no power source to a required 480 volt board. -----</p> <p>A.1 Restore the Unit 1 and 2 4.16 kV Shutdown Board to OPERABLE status.</p> <p><u>AND</u></p> <p>A.2 Declare associated diesel generator inoperable.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p> <p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One Unit 1 480 V Shutdown Board inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>480 V RMOV Board 1A inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>480 V RMOV Board 1B inoperable, for reasons other than Condition I.</p>	<p>B.1 Restore Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>C. One Unit 1 and 2 DG Auxiliary Board inoperable.</p>	<p>C.1 Restore Unit 1 and 2 DG Auxiliary Board to OPERABLE status.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. One Unit DC Board inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>One Unit 1 and 2 Shutdown Board DC Distribution Panel inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 1A inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 1B inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 1C inoperable, for reasons other than Condition I.</p>	<p>D.1 Restore required Board or Shutdown Board DC Distribution Panel to OPERABLE status.</p>	<p>7 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. Unit 1 and 2 4.16 kV Shutdown Board A and B inoperable, for reasons other than Condition I.</p> <p><u>OR</u></p> <p>Unit 1 and 2 4.16 kV Shutdown Board C and D inoperable, for reasons other than Condition I.</p>	<p>-----NOTE----- Enter applicable conditions and required actions of Condition B, C, and F when Condition E results in no power source to a required 480 volt board. -----</p> <p>E.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>F. One or more required Unit 2 or 3 AC or DC Boards inoperable, for reasons other than Condition I.</p>	<p>F.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>G. Required Action and associated Completion Time of Condition A, B, C, D, E, or I not met.</p>	<p>G.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>G.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>

(continued)



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>H. Two or more electrical power distribution subsystems inoperable that result in a loss of function, for reasons other than Condition I..</p>	<p>H.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>
<p>-----NOTE----- Only applicable when the compensatory actions for TVA letter CNL-21-020 are taken and on a one-time basis for installation and testing of the Unit 3 Control Bay Chiller Cross-tie before October 1, 2025. -----</p> <p>I. Two or more electrical power distribution subsystems inoperable due to installation and testing of the Unit 3 Control Bay Chiller Cross-tie.</p>	<p>I.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p>	<p>9 days</p>

sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. \_\_\_\_\_, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 253 to Facility Operating License DPR-52, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 253. For SRs that existed prior to Amendment 253, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 253.

- (3) The licensee is authorized to relocate certain requirements included in Appendix A and the former Appendix B to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One Unit 1 and 2 4.16 kV Shutdown Board inoperable, for reasons other than Condition J.</p>	<p>-----NOTE-----                      Enter applicable Conditions and Required Actions of Condition B, C, D, and G when Condition A results in no power source to a required 480 volt board.                      -----</p> <p>A.1 Restore the Unit 1 and 2 4.16 kV Shutdown Board to OPERABLE status.</p> <p><u>AND</u></p> <p>A.2 Declare associated diesel generator inoperable.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p> <p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One Unit 2 480 V Shutdown Board inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>480 V RMOV Board 2A inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>480 V RMOV Board 2B inoperable, for reasons other than Condition J.</p>	<p>-----NOTE----- Enter Condition C when Condition B results in no power source to 480 volt RMOV board 2D or 2E. -----</p> <p>B.1 Restore Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. Unit 2 480 V RMOV Board 2D inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>Unit 2 480 V RMOV Board 2E inoperable, for reasons other than Condition J.</p>	<p>C.1 Declare the affected RHR subsystem inoperable.</p>	<p>Immediately</p>
<p>D. One Unit 1 and 2 DG Auxiliary Board inoperable.</p>	<p>D.1 Restore Unit 1 and 2 DG Auxiliary Board to OPERABLE status.</p>	<p>5 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. One Unit DC Board inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>One Unit 1 and 2 Shutdown Board DC Distribution Panel inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2A inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2B inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>250 V DC RMOV Board 2C inoperable, for reasons other than Condition J.</p>	<p>E.1 Restore required Board or Shutdown Board DC Distribution Panel to OPERABLE status.</p>	<p>7 days</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Unit 1 and 2 4.16 kV Shutdown Board A and B inoperable, for reasons other than Condition J.</p> <p><u>OR</u></p> <p>Unit 1 and 2 4.16 kV Shutdown Board C and D inoperable, for reasons other than Condition J.</p>	<p>-----NOTE----- Enter applicable conditions and required actions of Condition B, C, D, and G when Condition F results in no power source to a required 480 volt board. -----</p> <p>F.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>G. One or more required Unit 1 or 3 AC or DC Boards inoperable, for reasons other than Condition J.</p>	<p>G.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>H. Required Action and associated Completion Time of Condition A, B, D, E, F or J not met.</p>	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>I. Two or more electrical power distribution subsystems inoperable that result in a loss of function, for reasons other than Condition J.</p>	<p>I.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

ACTIONS (continued)		
CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>-----NOTE-----                      Only applicable when the compensatory actions for TVA letter CNL-21-020 are taken and on a one-time basis for installation and testing the Unit 3 Control Bay Chiller Cross-tie before October 1, 2025.                      -----</p> <p>J. Two or more electrical power distribution subsystems inoperable due to installation and testing of the Unit 3 Control Bay Chiller Cross-tie.</p>	<p>J.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p>	<p>9 days</p>



- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. \_\_\_\_\_, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 212 to Facility Operating License DPR-68, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 212. For SRs that existed prior to Amendment 212, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 212.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>F. Unit 3 4.16 kV Shutdown Board 3EA and 3EB inoperable.</p> <p><u>OR</u></p> <p>Unit 3 4.16 kV Shutdown Board 3EC and 3ED inoperable.</p>	<p>-----NOTE----- Enter applicable conditions and required actions of Condition B, C, D, and G when Condition F results in no power source to a required 480 volt board. -----</p> <p>F.1 Restore one 4.16 kV Shutdown Board to OPERABLE status.</p>	<p>8 hours</p> <p><u>AND</u></p> <p>12 days from discovery of failure to meet LCO</p>
<p>G. One or more required Unit 1 or 2 AC or DC Boards inoperable, for reasons other than Condition J.</p>	<p>G.1 Declare the affected SGT or CREV subsystem inoperable.</p>	<p>Immediately</p>
<p>H. Required Action and associated Completion Time of Condition A, B, D, E, F, or J not met.</p>	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>I. Two or more electrical power distribution subsystems inoperable that result in a loss of function.</p>	<p>I.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>-----NOTE----- Only applicable when the compensatory actions for TVA letter CNL-21-020 are taken and on a one-time basis for installation and testing the Unit 3 Control Bay Chiller Cross-tie before October 1, 2025.</p> <p>-----</p> <p>J. Two or more electrical power distributions subsystems inoperable due to installation of the Unit 3 Control Bay Chiller Cross-tie.</p>	<p>J.1 Restore affected electrical power distribution subsystems to OPERABLE status.</p>	<p>9 days</p>