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10 CFR 50.90

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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

CATAWBA NUCLEAR STATION, UNITS 1 AND 2
DOCKET NOS. 50-413 AND 50-414 / RENEWED LICENSE NOS. NPF-35 AND NPF-52

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2
DOCKET NOS. 50-369 AND 50-370 / RENEWED LICENSE NOS. NPF-9 AND NPF-17

OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3
DOCKET NOS. 50-269, 50-270 AND 50-287 / RENEWED LICENSE NOS. DPR-38,
DPR-47 AND DPR-55

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

SUBJECT: Supplement to the Application to Revise Technical Specifications to Adopt TSTF-439, "Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO"

References:

1. Duke Energy letter, *Application to Revise Technical Specifications to Adopt TSTF-439, "Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO,"* dated June 9, 2021 (ADAMS Accession No. ML21160A008).

Ladies and Gentlemen:

By letter dated June 9, 2021 (Reference 1), Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC, collectively referred to henceforth as "Duke Energy," submitted a license amendment request (LAR) for the Catawba Nuclear Station (CNS), Units 1 and 2; McGuire Nuclear Station (MNS), Units 1 and 2; Oconee Nuclear Station (ONS), Units 1, 2 and 3; and H. B. Robinson Steam Electric Plant (RNP), Unit 2. Consistent with Technical Specification Task Force Traveler 439 (TSTF-439), the proposed amendment deletes second Completion times from the affected Required Actions contained in Technical Specifications (TS), along with removing the example contained in TS Section 1.3 and adding a discussion about alternating between Conditions.

The purpose of this submittal is to supplement the Duke Energy's June 9, 2021 application for CNS, MNS and ONS. There are no regulatory commitments contained in this letter. The conclusions of the original Significant Hazards Consideration Determination and Environmental Considerations contained in the June 9, 2021 LAR (Reference 1) are unaffected as a result of this LAR supplement.

If you should have any questions regarding this submittal, or require additional information, please contact Art Zaremba, Manager – Nuclear Fleet Licensing, at 980-373-2062.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 16, 2021.

Sincerely,

A handwritten signature in black ink that reads "Tanya M. Hamilton". The signature is written in a cursive style with a large initial "T".

Tanya Hamilton
Senior Vice President – Nuclear Corporate

NDE

Enclosure: Supplement to Application to Adopt TSTF-439

U.S. Nuclear Regulatory Commission

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cc (with Attachments):

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Supplement to the Application to Revise Technical Specifications to Adopt TSTF-439 “Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO”

By letter dated June 9, 2021, Duke Energy submitted a license amendment request (LAR) for Catawba Nuclear Station (CNS), Units 1 and 2; McGuire Nuclear Station (MNS), Units 1 and 2; Oconee Nuclear Station (ONS), Units 1, 2 and 3; and H. B. Robinson Steam Electric Plant (RNP), Unit 2. Consistent with Technical Specifications Task Force Traveler 439 (TSTF-439), Revision 2, “Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO”, the proposed amendment deletes second Completion Times from the affected Required Actions contained in Technical Specifications (TSs), along with removing the example contained in TS Section 1.3 and adding a discussion about alternating between Conditions.

The purpose of this submittal is to supplement the Duke Energy’s June 9, 2021 application for CNS, MNS and ONS only. The following information provides additional detail for system descriptions and historical amendments approved by the Nuclear Regulatory Commission (NRC) in support of CNS, MNS, and ONS TSs 3.8.1.

Catawba Nuclear Station

Catawba AC Sources System Description

The unit Essential Auxiliary Power Distribution System AC sources consist of the offsite power sources (preferred power sources, normal and alternate(s)), and the onsite standby power sources (Train A and Train B diesel generators (DGs)). The design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the Engineered Safety Feature (ESF) systems. The onsite Class 1E AC Distribution System is divided into redundant load groups (trains) so that the loss of any one group does not prevent the minimum safety functions from being performed. Each train has connections to two preferred offsite power sources and a single DG.

There are also provisions to accommodate the connecting of the Emergency Supplemental Power Source (ESPS) to one train of either unit’s Class 1E AC Distribution System. The ESPS consists of two 50% capacity non-safety related commercial grade DGs. Manual actions are required to align the ESPS to the station and only one of the station’s four onsite Class 1E Distribution System trains can be supplied by the ESPS at any given time. The ESPS is made available to support extended Completion Times in the event of an inoperable DG as well as a defense- in-depth source of AC power to mitigate a station blackout event. The ESPS would remain disconnected from the Class 1E AC Distribution System unless required for supplemental power to one of the four 4.16kV ESF buses. From the transmission network, two electrically and physically separated circuits provide AC power, through step down station auxiliary transformers, to the 4.16 kV ESF buses.

The onsite standby power source for each 4.16 kV ESF bus is a dedicated DG. DGs A and B are dedicated to ESF buses ETA and ETB, respectively.

Applicability of Catawba Amendments 304/300 (TS 3.8.1) to Adoption of TSTF-439

By letter dated August 27, 2019 (ADAMS Accession No. ML19212A655), the NRC issued Amendment Numbers 304 and 300 to the Renewed Facility Operating Licenses for CNS, Units 1 and 2, respectively. The amendments revised CNS TS 3.8.1, “AC Sources – Operating,” to extend the Completion Time of Condition B for an inoperable emergency diesel generator from

72 hours to 14 days. This request was supported by the addition of a supplemental power source, referred to as the Emergency Supplemental Power Supply (ESPS) (i.e., two supplemental DGs). The amendments also approved two new LCO 3.8.1 requirements for operability of opposite unit AC sources. LCO 3.8.1.c was added for a qualified circuit between the offsite transmission network and the opposite unit's Onsite Essential Auxiliary Power System that is necessary to supply power to shared systems. LCO 3.8.1.d was added for a DG from the opposite unit that is necessary to supply power to the shared systems. Along with these additional LCO requirements, the NRC staff approved new Conditions and Required Actions that clarify which unit's AC sources the TS Action statement applies to. For example, "LCO 3.8.1.a" was added to Condition A to clarify that the condition pertains to a qualified circuit between the offsite transmission network and the affected unit's onsite essential auxiliary power system, and not the opposite unit's onsite essential auxiliary power system. Similarly, "LCO 3.8.1.b" was added to Condition B to clarify that the condition pertains to a unit-specific emergency DG rather than the new LCO 3.8.1.d DG from the opposite unit. The NRC staff noted that this correctly specified the unit-specific nature of the condition.

Required Action A.3

With respect to "second Completion Times" and TSTF-439, the maximum CT for Required Action (RA) A.3 ("Restore offsite circuit to OPERABLE status.") was "6 days from discovery of failure to meet LCO" prior to approval of Amendment Nos. 304 and 300. With the issuance of Amendment Nos. 304 and 300, the CT is now "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." The NRC staff acknowledged that changing "LCO" to "LCO 3.8.1.a or LCO 3.8.1.b" clarifies that the 17-day CT pertains to the unit-specific AC power sources. The NRC staff also acknowledged that the new maximum 17-day CT for RA A.3 is the sum of the existing 72-hour CT for RA A.3 and the new 14-day CT for an inoperable LCO 3.8.1.b DG. The NRC found the "maximum 17-day CT for RA A.3 acceptable since it will limit the time for restoring the inoperable unit-specific AC power sources to meet the LCO 3.8.1 or take other remedial actions for the safe operation of the plant." Thus, the starting point for the subject license amendment request that was submitted on June 9, 2021 (ADAMS Accession No. ML21160A008) is a 17-day CT that aligns with Section 1.0, "Description" of TSTF-439. That is, consistent with NUREG-1431 for Westinghouse plants, a second CT is included for CNS TS 3.8.1, RA A.3 "to establish a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO." The maximum 17-day CT for RA A.3 is joined by an "AND" logical connector to the Condition-specific Completion Time, consistent with TSTF-439. Instead of the TSTF-439 description of "X days from discovery of failure to meet the LCO" (where "X" varies by specification), the CT for CNS RA A.3 states "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." As mentioned above, the "LCO 3.8.1.a" and "LCO 3.8.1.b" were added for clarification by Amendment Nos. 304 and 300. The intent of the 17-day CT is identical to the intent that is described in TSTF-439, which is to "preclude entry into and out of the ACTIONS for an indefinite period of time without meeting the LCO by providing a limit on the amount of time that the LCO could not be met for various combinations of Conditions." This variation from TSTF-439 to delete a maximum CT (i.e., "second CT") that has the clarifiers of LCO "3.8.1.a" and "3.8.1.b" instead of "LCO" is therefore administrative and does not affect the applicability of TSTF-439 to the 17-day CT of CNS TS 3.8.1, Condition A, Required Action A.3.

Require Action B.6

The maximum CT for RA B.6 (formerly RA B.4 - "Restore DG to OPERABLE status.") was "6 days from discovery of failure to meet LCO" prior to approval of Amendment Nos. 304 and 300. With the issuance of Amendment Nos. 304 and 300, the CT is now "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." The NRC staff acknowledged that the new maximum 17-day CT for RA B.6 is the sum of the 72-hour CT for restoring an LCO 3.8.1.a offsite circuit and the 14-day CT for restoring an inoperable LCO 3.8.1.b DG. The NRC found the "maximum 17-day CT for the renumbered RA B.6 acceptable since it limits the allowable total time that any combination or [sic] required AC power sources will be inoperable at the same time." Thus, the starting point for the subject license amendment request that was submitted on June 9, 2021 (ADAMS Accession No. ML21160A008) is a 17-day CT that aligns with Section 1.0, "Description" of TSTF-439. That is, consistent with NUREG-1431 for Westinghouse plants, a maximum CT is included for CNS TS 3.8.1, RA B.6 "to establish a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO." The maximum 17-day CT for RA B.6 is joined by an "AND" logical connector to the Condition-specific Completion Time of 14 days for an inoperable LCO 3.8.1.b DG, consistent with TSTF-439. Instead of the TSTF-439 description of "X days from discovery of failure to meet the LCO" (where "X" varies by specification), the CT for CNS RA B.6 states "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." As mentioned above, the "LCO 3.8.1.a" and "LCO 3.8.1.b" were added for clarification by Amendment Nos. 304 and 300. The intent of the 17-day CT is identical to the intent that was described in TSTF-439, which is to "preclude entry into and out of the ACTIONS for an indefinite period of time without meeting the LCO by providing a limit on the amount of time that the LCO could not be met for various combinations of Conditions." This variation from TSTF-439 to delete a maximum CT (i.e., "second CT") that has the clarifiers of LCO "3.8.1.a" and "3.8.1.b" instead of "LCO" is therefore administrative and does not affect the applicability of TSTF-439 to the 17-day CT of CNS TS 3.8.1, Condition B, Required Action B.6.

Required Action D.6

With the issuance of Amendment Nos. 304 and 300, a new 14-day CT was inserted as part of a new Condition D to restore an inoperable opposite unit DG (i.e., LCO 3.8.1.d DG) provided that the ESPS is available. There was not a "second CT" or "maximum CT" associated with RA D.6 prior to the issuance of Amendment Nos. 304 and 300 as the new Condition D ("One LCO 3.8.1.d DG inoperable.") did not exist in CNS TS 3.8.1. Thus, the existing maximum CT for RA D.6 is "17 days from discovery of failure to meet LCO 3.8.1.c or LCO 3.8.1.d." The NRC staff acknowledged that the maximum 17-day CT for RA D.6 "would limit the maximum time that LCO 3.8.1.c or LCO 3.8.1.d DG is not met while concurrently or sequentially in the TS 3.8.1 new Condition C (inoperable LCO 3.8.1.c offsite circuit) and new Condition D (inoperable LCO 3.8.1.d DG)." The NRC staff also acknowledged that the maximum CT of 17 days "would be the sum of the 72-hour CT for restoring an inoperable offsite circuit and the 14-day CT for restoring an inoperable DG" and found "the maximum 17-day CT for the new RA D.6 acceptable since it limits the allowable total time that any combination of required opposite unit's AC power sources will be inoperable at the same time." Thus, the starting point for the subject license amendment request that was submitted on June 9, 2021 (ADAMS Accession No. ML21160A008) is a 17-day CT that aligns with Section 1.0, "Description" of TSTF-439. That is, a maximum CT is included for CNS TS 3.8.1, RA D.6 "to establish

a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO.” The maximum 17-day CT for RA D.6 is joined by an “AND” logical connector to the Condition-specific Completion Time of 14 days for an inoperable LCO 3.8.1.d DG, consistent with TSTF-439. Instead of the TSTF-439 description of “X days from discovery of failure to meet the LCO” (where “X” varies by specification), the CT for CNS RA D.6 states “17 days from discovery of failure to meet LCO 3.8.1.c or LCO 3.8.1.d.” As mentioned above, the “LCO 3.8.1.c” and “LCO 3.8.1.d” were added to clarify opposite unit AC sources by Amendment Nos. 304 and 300. The intent of the 17-day CT is identical to the intent that was described in TSTF-439, which is to “preclude entry into and out of the ACTIONS for an indefinite period of time without meeting the LCO by providing a limit on the amount of time that the LCO could not be met for various combinations of Conditions.” This variation from TSTF-439 to delete a maximum CT (i.e., “second CT”) that has the clarifiers of LCO “3.8.1.c” and “3.8.1.d” instead of “LCO” is therefore administrative and does not affect the applicability of TSTF-439 to the 17-day CT of CNS TS 3.8.1, Condition D, Required Action D.6.

License Conditions and Safety Evaluation from CNS License Amendment Nos. 304/300 and TSTF-439 Applicability

Duke Energy confirms that for the proposed change to adopt TSTF-439 and delete the aforementioned CNS TS 3.8.1 “second Completion Times,” there would be no impact from the license conditions that were added to Appendix B of the Renewed Facility Operating Licenses for CNS Units 1 and 2 with the issuance of Amendment Nos. 304 and 300. Those license conditions would remain in place for the 14-day CT associated with an inoperable emergency DG and the adoption of TSTF-439 (i.e., deletion of TS 3.8.1 maximum 17-day CTs) would not impact Duke Energy’s capability to comply with the CNS license conditions.

Specifically with respect to Page 6 of the Safety Evaluation associated with Amendment Nos. 304 and 300 where the discussion regarding proposed license conditions is presented, it is factual that one of the license conditions was regarding “maintaining the risk estimates within the risk acceptance guidelines of Regulatory Guide (RG) 1.174 (Reference 10) and RG 1.177.” That discussion is referring to the following license condition that was added to Appendix B of the Facility Operating Licenses for CNS, Units 1 and 2:

The risk estimates associated with the 14-day EDG Completion Time LAR (including those results of associated sensitivity studies) will be updated, as necessary to incorporate the as-built, as-operated ESPS modification. Duke Energy will confirm that any updated risk estimates continue to meet the risk acceptance guidelines of RG 1.174 and RG 1.177.

This license condition was satisfied by Duke Energy for CNS Units 1 and 2 upon implementation of Amendment Nos. 300 and 304. The ESPS plant modification was not fully implemented at CNS at the time the amendments were issued. This license condition was imposed to provide assurance that the risk estimates were within the bounds of RG 1.174 and 1.177 upon full completion and incorporation of the as-built, as-operated CNS ESPS modification. The adoption of TSTF-439 for CNS to delete the maximum 17-day CTs from TS 3.8.1 would not invalidate any risk assessment results associated with the 14-day EDG CT of RAs B.6 and D.6 or any of the information in the “Technical Evaluation” of the associated Safety Evaluation. All conclusions of the Safety Evaluation remain valid and do not impact the proposed change to adopt TSTF-439.

With respect to Page 5 of the Safety Evaluation associated with Amendment Nos. 304 and 300 that refers to the primary reason for the request to extend the CT for an inoperable DG (“The licensee stated that the primary reason...”), those statements are still valid in that CNS will continue to utilize the 14-day extended DG CT to allow sufficient time to perform planned reliability improvement modifications and adequate preventative maintenance to ensure DG reliability and availability. Additionally, CNS also intends to continue using the 14-day CT to resolve emergent DG deficiencies and avoid potential unplanned shutdowns. There is no change to the intent for usage of the 14-day CT with the proposal to adopt TSTF-439 and eliminate the 17-day maximum CT from discovery of failure to meet the LCO. For the proposed change that would eliminate the 17-day CTs of RAs A.3, B.6, and D.6, the Reactor Oversight Process and the Maintenance Rule would directly apply as discussed in the original application dated June 9, 2021 and as discussed in TSTF-439.

McGuire Nuclear Station

McGuire AC Sources System Description

The unit Essential Auxiliary Power Distribution System AC sources consist of the offsite power sources (preferred power sources, normal and alternate(s)), and the onsite standby power sources (Train A and Train B diesel generators (DGs)). The design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the Engineered Safety Feature (ESF) systems. The onsite Class 1E AC Distribution System is divided into redundant load groups (trains) so that the loss of any one group does not prevent the minimum safety functions from being performed. Each train has connections to two preferred offsite power sources and a single DG.

There are also provisions to accommodate the connecting of the Emergency Supplemental Power Source (ESPS) to one train of either unit’s Class 1E AC Distribution System. The ESPS consists of two 50% capacity non-safety related commercial grade DGs. Manual actions are required to align the ESPS to the station and only one of the station’s four onsite Class 1E Distribution System trains can be supplied by the ESPS at any given time. The ESPS is made available to support extended Completion Times in the event of an inoperable DG as well as a defense- in-depth source of AC power to mitigate a station blackout event. The ESPS would remain disconnected from the Class 1E AC Distribution System unless required for supplemental power to one of the four 4.16 kV ESF buses.

The onsite standby power source for each 4.16 kV ESF bus is a dedicated DG. DGs A and B are dedicated to ESF buses ETA and ETB, respectively.

Applicability of McGuire Amendments 314/293 (TS 3.8.1) to Adoption of TSTF-439

By letter dated June 28, 2019 (ADAMS Accession No. ML19126A030), the NRC issued Amendment Numbers 314 and 293 to the Renewed Facility Operating Licenses for MNS, Units 1 and 2, respectively. The amendments revised MNS TS 3.8.1, “AC Sources – Operating,” to extend the Completion Time of Condition B for an inoperable emergency diesel generator from 72 hours to 14 days. This request was supported by the addition of a supplemental power source, referred to as the Emergency Supplemental Power Supply (ESPS) (i.e., two supplemental DGs). The amendments also approved two new LCO 3.8.1 requirements for operability of opposite unit AC sources. LCO 3.8.1.c was added for a qualified circuit between the offsite transmission network and the opposite unit’s Onsite Essential Auxiliary Power System that is necessary to supply power to shared systems. LCO 3.8.1.d was added for a DG

from the opposite unit that is necessary to supply power to the shared systems. Along with these additional LCO requirements, the NRC staff approved new Conditions and Required Actions that clarify which unit's AC sources the TS Action statement applies to. For example, "LCO 3.8.1.a" was added to Condition A to clarify that the condition pertains to a qualified circuit between the offsite transmission network and the affected unit's onsite essential auxiliary power system, and not the opposite unit's onsite essential auxiliary power system. The NRC staff noted that the change reflects the addition of the new LCO 3.8.1.c offsite circuit to TS 3.8.1 and that there was no change in intent for the existing requirements. Similarly, "LCO 3.8.1.b" was added to Condition B to clarify that the condition pertains to a unit-specific emergency DG rather than a DG from the opposite unit. The NRC staff noted that this clarifies that the condition pertains to a unit-specific emergency DG rather than the new LCO 3.8.1.d DG from the opposite unit and that the clarifier correctly specifies the unit-specific nature of the condition.

Required Action A.3

With respect to "second Completion Times" and TSTF-439, the maximum CT for RA A.3 ("Restore offsite circuit to OPERABLE status.") was "6 days from discovery of failure to meet LCO" prior to approval of Amendment Nos. 314 and 293. With the issuance of Amendment Nos. 314 and 293, the CT is now "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." The NRC staff acknowledged that changing "LCO" to "LCO 3.8.1.a or LCO 3.8.1.b" clarifies that the 17-day CT pertains to the unit-specific AC power sources. The NRC staff also acknowledged that the new maximum 17-day CT for RA A.3 is the sum of the existing 72-hour CT for RA A.3 and the new 14-day CT for an inoperable LCO 3.8.1.b DG. The NRC found the "maximum 17-day CT for RA A.3 acceptable since it will limit the time for restoring the inoperable unit-specific AC power sources to meet the LCO 3.8.1 or take other remedial actions for the safe operation of the plant." Thus, the starting point for the subject license amendment request that was submitted on June 9, 2021 (ADAMS Accession No. ML21160A008) is a 17-day CT that aligns with Section 1.0, "Description" of TSTF-439. That is, consistent with NUREG-1431 for Westinghouse plants, a second CT is included for MNS TS 3.8.1, RA A.3 "to establish a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO." The maximum 17-day CT for RA A.3 is joined by an "AND" logical connector to the Condition-specific Completion Time, consistent with TSTF-439. Instead of the TSTF-439 description of "X days from discovery of failure to meet the LCO" (where "X" varies by specification), the CT for MNS RA A.3 states "17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b." As mentioned above, the "LCO 3.8.1.a" and "LCO 3.8.1.b" were added for clarification by Amendment Nos. 314 and 293. The intent of the 17-day CT is identical to the intent that was described in TSTF-439, which is to "preclude entry into and out of the ACTIONS for an indefinite period of time without meeting the LCO by providing a limit on the amount of time that the LCO could not be met for various combinations of Conditions." This variation from TSTF-439 to delete a maximum CT (i.e., "second CT") that has the clarifiers of LCO "3.8.1.a" and "3.8.1.b" instead of "LCO" is therefore administrative and does not affect the applicability of TSTF-439 to the 17-day CT of MNS TS 3.8.1, Condition A, Required Action A.3.

Required Action B.6

The maximum CT for RA B.6 (formerly RA B.4 - "Restore DG to OPERABLE status.") was "6 days from discovery of failure to meet LCO" prior to approval of Amendment Nos. 314 and 293. With the issuance of Amendment Nos. 314 and 293, the CT is now "17

days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b.” The NRC staff acknowledged that the new maximum 17-day CT for RA B.6 is the sum of the 72-hour CT for restoring an LCO 3.8.1.a offsite circuit and the 14-day CT for restoring an inoperable LCO 3.8.1.b DG. The NRC found the “maximum 17-day CT for the renumbered RA B.6 acceptable since it limits the allowable total time that any combination or [sic] required AC power sources will be inoperable at the same time.” Thus, the starting point for the subject license amendment request that was submitted on June 9, 2021 (ADAMS Accession No. ML21160A008) is a 17-day CT that aligns with Section 1.0, “Description” of TSTF-439. That is, consistent with NUREG-1431 for Westinghouse plants, a maximum CT is included for MNS TS 3.8.1, RA B.6 “to establish a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO.” The maximum 17-day CT for RA B.6 is joined by an “AND” logical connector to the Condition-specific Completion Time of 14 days for an inoperable LCO 3.8.1.b DG, consistent with TSTF-439. Instead of the TSTF-439 description of “X days from discovery of failure to meet the LCO” (where “X” varies by specification), the CT for MNS RA B.6 states “17 days from discovery of failure to meet LCO 3.8.1.a or LCO 3.8.1.b.” As mentioned above, the “LCO 3.8.1.a” and “LCO 3.8.1.b” were added for clarification by Amendment Nos. 314 and 293. The intent of the 17-day CT is identical to the intent that was described in TSTF-439, which is to “preclude entry into and out of the ACTIONS for an indefinite period of time without meeting the LCO by providing a limit on the amount of time that the LCO could not be met for various combinations of Conditions.” This variation from TSTF-439 to delete a maximum CT (i.e., “second CT”) that has the clarifiers of LCO “3.8.1.a” and “3.8.1.b” instead of “LCO” is therefore administrative and does not affect the applicability of TSTF-439 to the 17-day CT of MNS TS 3.8.1, Condition B, Required Action B.6.

License Conditions from MNS License Amendment Nos. 314/293 and TSTF-439 Applicability

Duke Energy confirms that for the proposed change to adopt TSTF-439 and delete the aforementioned MNS TS 3.8.1 “second Completion Times,” there would be no impact from the license conditions that were added to Appendix B of the Renewed Facility Operating Licenses for MNS Units 1 and 2 with the issuance of Amendment Nos. 314 and 293. Those license conditions would remain in place for the 14-day CT associated with an inoperable emergency DG and the adoption of TSTF-439 (i.e., deletion of TS 3.8.1 maximum 17-day CTs) would not impact Duke Energy’s capability to comply with the MNS license conditions.

Specifically with respect to Page 9 of the Safety Evaluation associated with Amendment Nos. 314 and 293 where the discussion regarding proposed license conditions is presented, it is factual that one of the license conditions was regarding “maintaining the risk estimates within the risk acceptance guidelines of Regulatory Guide (RG) 1.174 (Reference 12) and 1.177 (Reference 13).” That discussion is referring to the following license condition that was added to Appendix B of the Facility Operating Licenses for MNS, Units 1 and 2:

The risk estimates associated with the 14-day EDG Completion Time LAR (including those results of associated sensitivity studies) will be updated, as necessary to incorporate the as-built, as-operated ESPS modification. Duke Energy will confirm that any updated risk estimates continue to meet the risk acceptance guidelines of RG 1.174 and RG 1.177.

This license condition was satisfied by Duke Energy for MNS Units 1 and 2 upon implementation of Amendment Nos. 314 and 293. This license condition was imposed to

provide assurance that the risk estimates were within the bounds of RG 1.174 and 1.177 upon full completion and incorporation of the as-built, as-operated MNS ESPS modification. The adoption of TSTF-439 for MNS to delete the maximum 17-day CTs from TS 3.8.1 would not invalidate any risk assessment results associated with the 14-day EDG CT of RA B.6 or any of the information in the "Technical Evaluation" of the associated Safety Evaluation. All conclusions of the Safety Evaluation remain valid and do not impact the proposed change to adopt TSTF-439.

Also with respect to Page 9 of the Safety Evaluation associated with Amendment Nos. 314 and 293, there is a discussion that refers to the primary reason for the request to extend the CT for an inoperable DG ("The licensee stated that the primary reason..."). Those statements are still valid in that MNS will continue to utilize the 14-day extended DG CT to allow sufficient time to perform planned reliability improvement modifications and adequate preventative maintenance to ensure DG reliability and availability. Additionally, MNS also intends to continue using the 14-day CT to resolve emergent DG deficiencies and avoid potential unplanned shutdowns. There is no change to the intent for usage of the 14-day CT with the proposal to adopt TSTF-439 for MNS and eliminate the 17-day maximum CT from discovery of failure to meet the LCO. For the proposed change that would eliminate the 17-day CTs of RAs A.3 and B.6, the Reactor Oversight Process and the Maintenance Rule would directly apply as discussed in the original application dated June 9, 2021 and as discussed in TSTF-439.

Oconee Nuclear Station

Oconee AC Sources System Description

The AC Power System consists of the offsite power sources (preferred power) and the onsite standby power sources, Keowee Hydro Units (KHU). This system is designed to supply the required Engineered Safeguards (ES) loads of one unit and safe shutdown loads of the other two units and is so arranged that no single failure can disable enough loads to jeopardize plant safety. The design of the AC Power System provides independence and redundancy to ensure an available source of power to the ES systems. The KHU turbine generators are powered through a common penstock by water taken from Lake Keowee.

The preferred power source is provided from offsite power to the red or yellow bus in the 230 kV switchyard to the units startup transformer and the E breakers. The 230 kV switchyard is electrically connected to the 525 kV switchyard via the autobank transformer. Emergency power is provided using two emergency power paths, an overhead path and an underground path. The underground emergency power path is from one KHU through the underground feeder circuit, transformer CT-4, the CT-4 incoming breakers (SK breakers), standby bus and the standby breakers (S breakers). The standby buses may also receive offsite power from the 100 kV transmission system through transformer CT-5 and the CT-5 incoming breakers (SL breakers). The overhead emergency power path is from the other KHU through the startup transformer and the startup incoming breakers (E breakers).

Plant-Specific Justification for Applicability of TSTF-439 to Oconee TS 3.8.1

The second CTs for ONS TS 3.8.1, RAs C.2.1 ("Restore the KHU and its required overhead emergency power path to OPERABLE status.") and D.3 ("Restore KHU and its required underground emergency power path to OPERABLE status.") were added upon the issuance of Amendment Nos. 300, 300 and 300 to the Facility Operating Licenses for ONS Units 1, 2 and 3, respectively (ADAMS Accession No. ML15261A511) and require restoration of a KHU and its

required emergency power path (i.e., overhead path or underground path) within 72 hours from discovery of an inoperable Keowee Hydro Unit (KHU). Those amendments reflected full conversion to Improved Standard Technical Specifications (STS) based on NUREG-1430, "Standard Technical Specifications Babcock and Wilcox Plants," Revision 1. The second CTs of "72 hours from discovery of inoperable KHU" for RAs C.2.1 and D.3 have never been revised since the issuance of Amendment Nos. 300, 300 and 300. Prior to conversion to Improved STS, the ONS CTs for these RAs did not have a second CT and only required restoration of a KHU and its required emergency power path (i.e., overhead path or underground path) within 72 hours.

Supplement 4 to the ONS application to convert to Improved STS (ADAMS Accession No. ML15261A455) stated the following, in part, with respect to RAs C.2.1 and D.3:

ITS 3.8.1 Required Actions C.2.1 and D.3 require restoration within 72 hours AND within 72 hours from discovery of an inoperable KHU. The second Completion Time is added to preclude gaining any additional time for restoring an inoperable KHU by swapping power paths. Without this, theoretically one could enter Condition C for an inoperable KHU and its required overhead emergency power path, then switch the KHUs to the underground emergency power path and extend the Completion Time based on exiting Condition C and entering Condition D. The Completion Time would then start over again and 72 hours would be allowed to restore the KHU and the underground emergency power path. This could be done any number of times to extend the Completion Time indefinitely...The propose change is consistent with the method used by NUREG 3.8.1 to limit the time in a degraded condition.

This was identified as a "Technical Change – More Restrictive" change to the ONS TS during conversion to Improved STS. The above discussion and intent of RAs C.2.1 and D.3 aligns with the "Description" section of TSTF-439, which discusses that second CTs were included in the Improved STS NUREGs to establish a limit on the maximum time allowed for any combination of Conditions that result in a single continuous failure to meet the LCO. In these two instances for ONS, a second CT was added for that exact purpose. Consistent with TSTF-439, the ONS second CTs for both RAs C.2.1 and D.3 are joined by an "AND" logical connector to the Condition-specific Completion Time. Instead of stating "X days from discovery of failure to meet the LCO," as stated in TSTF-439, the ONS CTs state "72 hours from discovery of inoperable KHU." Discovery of an inoperable KHU is a failure to meet ONS LCO 3.8.1 because the LCO requires two KHUs to be OPERABLE. Therefore, stating "from discovery of inoperable KHU" instead of "from discovery of failure to meet the LCO" does not affect the applicability of TSTF-439 to the second CTs of ONS TS 3.8.1, RAs C.2.1 and D.1.

In conclusion, the second CTs of RAs C.2.1 and D.3 were added to ONS TS for the same reason other "second CTs" were added to the NUREG STS (i.e., to prevent the repeated entry and exit from alternating TS Conditions and RAs), and therefore TSTF-439 and its justification for removing the second CTs is directly applicable to these ONS TS 3.8.1 second CTs.