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

September 18, 2017

Mr. Steven D. Capps
Vice President
McGuire Nuclear Station
Duke Energy Carolinas, LLC
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 – ISSUANCE OF AMENDMENTS ADOPTING TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER TSTF-269-A, REVISION 2 (CAC NOS. MF9114 AND MF9115)

Dear Mr. Capps:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No. 298 to Renewed Facility Operating License No. NPF-9 and Amendment No. 277 to Renewed Facility Operating License No. NPF-17 for the McGuire Nuclear Station, Units 1 and 2, respectively. The amendments are in response to your application dated January 11, 2017. The January 11, 2017, application included a request to adopt multiple Technical Specifications Task Force (TSTF) Travelers. This letter only applies to the request related to TSTF-269-A, Revision 2, "Allow administrative means of position verification for locked or sealed valves."

The amendments modify Technical Specification (TS) 3.6.3, "Containment Isolation Valves," to add a Note to Required Actions A.2, C.2, and E.2 to allow isolation devices that are locked, sealed, or otherwise secured to be verified by use of administrative means. The changes are consistent with NRC-approved TSTF-269-A, Revision 2.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

Michael Mahoney, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosures:
1. Amendment No. 298 to NPF-9
2. Amendment No. 277 to NPF-17
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv

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

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 298
Renewed License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the McGuire Nuclear Station, Unit 1 (the facility), Renewed Facility Operating License No. NPF-9, filed by Duke Energy Carolinas, LLC (the licensee), dated January 11, 2017, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-9 is hereby amended to read as follows:

   (2) TECHNICAL SPECIFICATIONS

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 298, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 120 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Shawn Williams for

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed License No. NPF-9
and Technical Specifications

Date of Issuance: September 18, 2017

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

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-370

MCGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 277
Renewed License No. NPF-17

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the McGuire Nuclear Station, Unit 2 (the facility), Renewed Facility Operating License No. NPF-17, filed by the Duke Energy Carolinas, LLC (the licensee), dated January 11, 2017, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-17 is hereby amended to read as follows:

   (2) TECHNICAL SPECIFICATIONS

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 277, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 120 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Shawn Williams for

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed License No. NPF-17
and Technical Specifications

Date of Issuance: September 18, 2017

ATTACHMENT TO

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

LICENSE AMENDMENT NO. 298

RENEWED FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

LICENSE AMENDMENT NO. 277

RENEWED FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

Replace the following pages of the Renewed Facility Operating Licenses with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
NPF-9, page 3	NPF-9, page 3
NPF-17, page 3	NPF-17, page 3

Replace the following pages of the Appendix A Technical Specifications (TS) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
TS 3.6.3-2	TS 3.6.3-2
TS 3.6.3-3	TS 3.6.3-3
TS 3.6.3-4	TS 3.6.3-4

(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 instrument calibration or associated with radioactive apparatus or components;

(5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproducts and special nuclear materials as may be produced by the operation of McGuire Nuclear Station, Units 1 and 2, and;

(6) Pursuant to the Act and 10 CFR Parts 30 and 40, to receive, possess and process for release or transfer such byproduct material as may be produced by the Duke Training and Technology Center.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and 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 a reactor core full steady state power level of 3469 megawatts thermal (100%).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 298, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than June 12, 2021, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

(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 instrument calibration or associated with radioactive apparatus or components;

(5) Pursuant to the Act and 10 CFR Parts, 30, 40 and 70, to possess, but not separate, such byproducts and special nuclear materials as my be produced by the operation of McGuire Nuclear Station, Units 1 and 2; and,

(6) Pursuant to the Act and 10 CFR Parts 30 and 40, to receive, possess and process for release or transfer such by product material as may be produced by the Duke Training and Technology Center.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or thereafter 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 a reactor core full steady state power level of 3469 megawatts thermal (100%).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 277, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than March 3, 2023, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59, and otherwise complies with the requirements in that section.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2 ----------NOTES---------- 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means. ---------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
B. ----------NOTE---------- Only applicable to penetration flow paths with two containment isolation valves. ---------- One or more penetration flow paths with two containment isolation valves inoperable except for purge valve or reactor building bypass leakage not within limit.	B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	1 hour

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Only applicable to penetration flow paths with only one containment isolation valve and a closed system. ---------- One or more penetration flow paths with one containment isolation valve inoperable.	C.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. AND C.2 ----------NOTES---------- 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means. ---------- Verify the affected penetration flow path is isolated.	72 hours Once per 31 days
D. Reactor building bypass leakage not within limit.	D.1 Restore leakage within limit.	4 hours
E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.	E.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. AND	24 hours

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued)	E.2 ----------NOTES---------- 1. Isolation devices in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means. ---------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
	AND	
	E.3 Perform SR 3.6.3.6 for the resilient seal purge valves closed to comply with Required Action E.1.	Once per 92 days
F. Required Action and associated Completion Time not met.	F.1 Be in MODE 3.	6 hours
	AND	
	F.2 Be in MODE 5.	36 hours

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 298 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-9

AND

AMENDMENT NO. 277 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-17

DUKE ENERGY CAROLINAS, LLC

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-369 AND 50-370

1.0 INTRODUCTION

By letter to the United States Nuclear Regulatory Commision (NRC) dated January 11, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17025A069), Duke Energy Carolinas, LLC (Duke Energy) submitted an application to seek approval to change the Technical Specification (TSs) for McGuire Nuclear Station, Units 1 and 2 (McGuire).

This license amendment request (LAR) modifies TS 3.6.3, "Containment Isolation Valves," to add a Note to Required Actions A.2, C.2, and E.2 to allow isolation devices that are locked, sealed, or otherwise secured to be verified by use of administrative means. The licensee stated that this change is consistent with Technical Specifications Task Force (TSTF) Traveler TSTF-269-A, Revision 2, "Allow administrative means of position verification for locked or sealed valves" (ADAMS Accession No. ML040620100). The NRC approved TSTF-269, Revision 2 in a letter dated July 26, 1999 (ADAMS Legacy Accession No. 9907300113).

2.0 REGULATORY EVALUATION

In Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in a plant's TSs.

The NRC staff used Revision 3 of the WOG STS (ADAMS Accession No. ML041830612) in its review of the TS changes proposed for McGuire.

2.1 Licensee's Proposed Changes

Current TS LCO 3.6.3, Condition A states, "One or more penetration flow paths with one containment isolation valve inoperable except for purge valve or reactor building bypass leakage not within limit." Required Action A.2 states,

> Verify the affected penetration flow path is isolated.

With a Completion Time of:

> Once per 31 days for isolation devices outside containment
>
> AND
>
> Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment.

Current TS LCO 3.6.3, Condition C states, "One or more penetration flow paths with one containment isolation valve inoperable." Required Action C.2 states,

> Verify the affected penetration flow path is isolated.

With a Completion Time of:

> Once per 31 days.

Current TS LCO 3.6.3, Condition E states, "One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits." Required Action E.2 states,

> Verify the affected penetration flow path is isolated.

With a Completion Time of:

> Once per 31 days for isolation devices outside containment
>
> AND
>
> Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment.

Revised TS LCO 3.6.3 would add the following NOTE (as NOTE 2) under Required Actions A.2, C.2, and E.2.

> Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.

The current NOTE for TS LCO 3.6.3 Required Actions A.2, C.2, and E.2 would be renumbered to be NOTE 1.

3.0 TECHNICAL EVALUATION

TSTF-269-A, Revision 2, revised WOG STS 3.6.3, "Containment Isolation Valves (Atmospheric, Subatmospheric, Ice Condenser, and Dual)," by adding a note under Required Actions A.2, C.2, and E.2 that isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.

Periodic verification is required for a penetration with an inoperable isolation valve in order to detect and correct inadvertent repositioning of the isolation device. Because the purpose of locking, sealing or securing components is to prevent inadvertent repositioning, the licensee proposed that periodic re-verification should be a verification of the administrative controls that ensure that the component remains in the required state. TS LCO 3.6.3 states, "Each containment isolation valve shall be OPERABLE." The OPERABILITY requirements for isolation valves ensure that components are capable of performing their safety functions within the time limits assumed in the safety analyses. Updated Final Safety Analysis Report Section 6.2.1.6.2 states that during plant operation certain tests and inspections are conducted to ensure the functional capability of containment and associated structures, systems, and components (including the containment isolation valves). It is reasonable to assume that the initial establishment of component status (i.e., closing of an isolation valve) was performed sufficiently, and subsequent, periodic re-verification of the administrative control is thus sufficient to demonstrate continued isolation. Additionally, it is undesirable to remove the lock, seal, or other means of securing the component solely to perform an active verification of the components required state, as it would increase the possibility of mis-positioning the component due to frequent manipulations.

The NRC staff has reviewed the proposed changes to TS LCO 3.6.3 and has determined that the licensee's proposed use of administrative controls provides adequate assurance that the valves are maintained in the positions required by the plant safety analyses when primary and secondary containment are required to be operable.

3.1 NRC Staff's Conclusion

Based on the above, the NRC staff concludes that the proposed TS changes, consistent with TSTF-269-A, Revision 2, would continue to meet the requirements of 10 CFR 50.36(c)(2)(i) and is, therefore, acceptable, since the proposed administrative controls provide reasonable assurance of plant safety.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC staff notified the South Carolina State official of the proposed issuance of the amendments on August 16, 2017. The State official confirmed on September 6, 2017, that the State of North Carolina had no comments.

5.0 PUBLIC COMMENTS

On May 23, 2017, the NRC staff published a "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing," in the *Federal Register* associated with the proposed amendment request (82 FR 23619). In accordance with the requirements in 10 CFR 50.91, the notice provided a 30-day period for public comment on the proposed no significant hazards consideration determination. One comment from a member of the public was received, however it was not related to the no significant hazards consideration

determination nor the LAR. The comment can be found at www.regulations.gov, reference NRC-2017-0120-0002.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on this finding (82 FR 23619). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Smith, NRR

Date: September 18, 2017

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 – ISSUANCE OF AMENDMENTS ADOPTING TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER TSTF-269-A, REVISION 2 (CAC NOS. MF9114 AND MF9115) DATED SEPTEMBER 18, 2017

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ADAMS Accession No.: ML17240A354 *by memorandum

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