



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

March 8, 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 REGARDING CHANGE TO TECHNICAL SPECIFICATIONS  
(TS), REMOVAL OF SUPERSEDED TS REQUIREMENTS (CAC NOS. MF7682  
AND MF7683)

Dear Mr. Capps:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 293 to Renewed Facility Operating License No. NPF-9 and Amendment No. 272 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 May 5, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16134A068), as supplemented by letter dated June 16, 2016 (ADAMS Accession No. ML16180A179).

The amendments modify the Technical Specifications (TS) by removing a footnote from TS Table 3.3.2-1, which is no longer applicable, and by removing an expired footnote from TS 3.8.1.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Mahoney", written over a horizontal line.

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. 293 to NPF-9
2. Amendment No. 272 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. 293  
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 (licensee), dated May 5, 2016, as supplemented by letter dated June 16, 2016, 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.

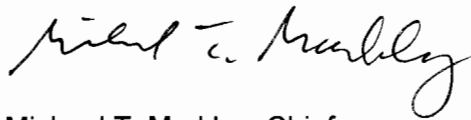
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-9 is hereby amended to read as follows:

- (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 293, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

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

Date of Issuance: March 8, 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. 272  
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 May 5, 2016, as supplemented by letter dated June 16, 2016, 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.

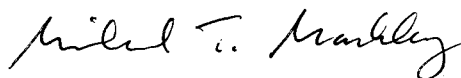
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-17 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 272, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

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

Date of Issuance: March 8, 2017

ATTACHMENT

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

LICENSE AMENDMENT NO. 293

RENEWED FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

LICENSE AMENDMENT NO. 272

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  
NPF-9, page 3  
NPF-17, page 3

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

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

Remove  
3.3.2-14  
3.8.1-3

Insert  
3.3.2-14  
3.8.1-3

- (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 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. 293 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.

- (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 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. 272 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.



Table 3.3.2-1 (page 5 of 6)  
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
6. Auxiliary Feedwater (continued)						
e. Trip of all Main Feedwater Pumps	1,2	1 per MFW pump	K	SR 3.3.2.7 SR 3.3.2.9	NA	NA
f. Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low	1,2,3	2 per MDP, 4 per TDP	N,O	SR 3.3.2.7(a)(b) SR 3.3.2.8(a)(b) SR 3.3.2.9	≥ 6.5 psig ≥ 7.5 psig (2A MDP only)	7.0 psig 8.0 psig (2A MDP only)
7. Automatic Switchover to Containment Sump						
a. Refueling Water Storage Tank (RWST) Level - Low	1,2,3	3	P,S	SR 3.3.2.1 SR 3.3.2.3(a)(b) SR 3.3.2.8(a)(b) SR 3.3.2.9	≥ 92.3 inches	95 inches
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
(continued)						

(a) If the as-found channel setpoint is outside its predefined as-found tolerance, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service.

(b) The instrument channel setpoint shall be reset to a value that is within the as-left tolerance around the Nominal Trip Setpoint (NTSP) at the completion of the surveillance; otherwise, the channel shall be declared inoperable. Setpoints more conservative than the NTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the Surveillance procedures (field setting) to confirm channel performance. The methodologies used to determine the as-found and the as-left tolerances are specified in the UFSAR.

NOTE 1: The Trip Setpoint for the Containment Pressure Control System start permissive/termination (SP/T) shall be ≥ 0.3 psig and ≤ 0.4 psig. The allowable value for the SP/T shall be ≥ 0.25 psig and ≤ 0.45 psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.4 Restore DG to OPERABLE status.	72 hours **  <u>AND</u>  6 days from discovery of failure to meet LCO
C. Two offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	<u>AND</u> C.2 Restore one offsite circuit to OPERABLE status.	24 hours

(continued)

\*\* 'A' Train EDGs are allowed to be inoperable for a total of 14 days for the correction of a degraded condition on the 'A' Train supply piping from the Standby Nuclear Service Water Pond (SNSWP). The 14 days may be taken consecutively or in parts until completion of the activity, or by March 1, 2017 whichever occurs first. During the period in which the 'A' Train NSWS supply piping from the SNSWP is not available, the 'A' Train NSWS will remain aligned to Lake Norman until the system is ready for post maintenance testing. Any maintenance that is performed on the remaining portions of 'A' Train NSWS during the period in which the 'A' NSWS from the SNSWP supply piping is not available will be limited to a 72 hour completion time. The latter will not count against the 14 day completion time. Allowance of the extended Completion Time is contingent on meeting the Compensatory Measures and Commitments as described in MNS LAR submittal correspondence letter MNS-16-005.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 293 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-9  
AND  
AMENDMENT NO. 272 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 U.S. Nuclear Regulatory Commission (NRC, the Commission) dated May 5, 2016, as supplemented by letter dated June 16, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML16134A068 and ML16180A179, respectively), Duke Energy Carolinas, LLC (Duke Energy) submitted an application seeking approval to change the Technical Specifications (TS) for McGuire Nuclear Station, Units 1 and 2 (MNS). The supplement dated June 16, 2016, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 5, 2016 (81 FR 43649).

The amendments would modify the MNS TS by removing footnote (c) from TS Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation," which is no longer applicable, and by removing an expired footnote from TS 3.8.1, "AC Sources – Operating."

By letter dated September 12, 2013 (ADAMS Accession No. ML13262A500), as supplemented by letters dated May 20 and July 22, 2014 (ADAMS Accession Nos. ML14161A231 and ML14205A440, respectively), Duke Energy submitted a license amendment request (LAR) related to MNS TS 3.3.2, which was needed for plant modifications to install new equipment in support of NRC Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (ADAMS Accession No. ML12056A045). The NRC issued a license amendment on August 27, 2014 (ADAMS

Accession No. ML14211A403) approving the changes requested in the LAR, which included modifying TS Table 3.3.2-1 by adding footnote (c). The final plant modifications in support of EA-12-049 were completed in the fall of 2015 (during the MNS Unit 2 refueling outage).

By letter dated June 7, 2007 (ADAMS Accession No. ML071590038), as supplemented by letter dated June 8, 2007 (ADAMS Accession No. ML071640098), Duke Energy submitted a one-time emergency LAR to add a footnote to TS 3.8.1. The LAR was need to support unanticipated repairs on the 1A Emergency Diesel Generator (EDG). The NRC issued a license amendment on June 8, 2007 (ADAMS Accession No. ML071570599) approving the changes. The 1A EDG repairs covered by the amendment have been completed, and the footnote expired on June 15, 2007, and is no longer applicable.

## 2.0 REGULATORY EVALUATION

In Title 10 of the *Code of Federal Regulations* (CFR) 50.36, the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs; (3) Surveillance Requirements (SRs); (4) design features; and (5) administrative controls.

## 3.0 TECHNICAL EVALUATION

The proposed changes to TS Table 3.3.2-1 and TS 3.8.1 are administrative, non-technical editorial changes only. The proposed change to TS Table 3.3.2-1 would remove a temporary footnote which was inserted as part of an NRC-approved license amendment to support the staggered implementation of plant modifications needed to comply with EA-12-049. The proposed change to TS 3.8.1 would delete a footnote, since expired, which allowed a one-time extension to the completion time for Required Action B.4 to support unanticipated 1A EDG repairs.

### 3.1 Licensee's Proposed Changes

Duke Energy requests to delete footnote (c) from TS Table 3.3.2-1 related to FUNCTION 6.f. for Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low. The footnote to be removed is the following:

(c) Prior to completion of the AC independent AFW pump suction transfer scheme modification on the respective Unit, the Allowable Value for this Function is  $\geq 3$  psig ( $\geq 4$  psig 2A MDP only) and the Nominal Trip Setpoint for this Function is 3.5 psig (4.5 psig 2A MDP only).

Duke Energy requests to delete a footnote in TS 3.8.1 related to the COMPLETION TIME of REQUIRED ACTION B.4 for the 1A EDG. The footnote to be removed is the following:

\* For Unit 1 only, the Completion Time that the 1A EDG can be inoperable as specified by Required Action B.4 may be extended beyond the "72 hours and 6 days from discovery of failure to meet the LCO" up to a total of 10 days as part of the 1A EDG Jacket/Intercooler Water Pump Motor repair. Upon completion of the repair and

restoration, this footnote is no longer applicable and will expire at 1741 hours on June 15, 2007.

### 3.2 NRC Staff Conclusion

The NRC staff finds that the proposed changes to TS Table 3.3.2-1 and TS 3.8.1 are administrative editorial changes which are non-technical in nature. The proposed change to TS Table 3.3.2-1 would remove a temporary footnote which was inserted as part of an NRC-approved license amendment to support the staggered implementation of plant modifications needed to comply with EA-12-049. The final plant modifications were completed during the fall 2015 MNS Unit 2 refueling outage. Therefore, the NRC staff concludes the removal of footnote (c) in TS Table 3.3.2-1 is acceptable.

The proposed change to TS 3.8.1 would delete a footnote which allowed a one-time extension to the completion time for Required Action B.4 to support unanticipated 1A EDG repairs. The repairs covered by the footnote have been completed and the footnote is no longer applicable, as the footnote expired on June 15, 2007. Therefore, the NRC staff concludes the removal of the TS 3.8.1 footnote is acceptable.

The NRC staff concludes that with the deletion of the footnotes, McGuire Nuclear Station, Units 1 and 2, continue to meet the regulatory requirements of 10 CFR 50.36 and is, therefore, acceptable.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the North Carolina State official was notified of the proposed issuance of the amendments on January 1, 2017. The State official had no comments.

### 5.0 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 (July 5, 2016, 81 FR 43649). 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.

## 6.0 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: M. Mahoney, NRR

Date: March 8, 2017

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 – ISSUANCE OF AMENDMENTS REGARDING CHANGE TO TECHNICAL SPECIFICATIONS (TS), REMOVAL OF SUPERSEDED TS REQUIREMENTS (CAC NOS. MF7682 AND MF7683)

DATE: March 8, 2017

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RecordsAmend

**ADAMS Accession No.: ML17003A019**

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DORL/LPL2-1/LA	OGC – NLO with edits
NAME	MMahoney	KGoldstein	JWachutka
DATE	1/12/2017	2/27/2017	1/17/2017
OFFICE	NRR/DORL/LPL2-1/BC	NRR/DORL/LPL2-1/PM	
NAME	MMarkley	MMahoney	
DATE	3/08/2017	3/08/2017	

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