



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

July 21, 2017

Mr. Tom Simril
Site Vice President
Catawba Nuclear Station, Units 1 and 2
Duke Energy Carolinas, LLC
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 – ISSUANCE OF
AMENDMENTS ADOPTING TECHNICAL SPECIFICATIONS TASK FORCE
TRAVELER TSTF-269-A, REVISION 2 (CAC NOS. MF8983 AND MF8984)

Dear Mr. Simril:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 290 to Renewed Facility Operating License No. NPF-35 and Amendment No. 286 to Renewed Facility Operating License No. NPF-52 for the Catawba Nuclear Station, Units 1 and 2, respectively. The amendments are in response to your application dated December 15, 2016 (Agencywide Documents Access and Management System Accession No. ML16350A422).

The amendments modify Technical Specification (TS) 3.6.3, "Containment Isolation Valves," to add a Note to TS Limiting Condition for Operation 3.6.3 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 Technical Specifications Task Force (TSTF) Traveler TSTF-269-A, Revision 2, "Allow administrative means of position verification for locked or sealed valves."

T. Simril

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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,

A handwritten signature in black ink, appearing to read 'Michael Mahoney', with a long horizontal flourish extending to the right.

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

Docket Nos. 50-413 and 50-414

Enclosures:

1. Amendment No. 290 to NPF-35
2. Amendment No. 286 to NPF-52
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv



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

DUKE ENERGY CAROLINAS, LLC
NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION
DOCKET NO. 50-413
CATAWBA NUCLEAR STATION, UNIT 1
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 290
Renewed License No. NPF-35

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 1 (the facility), Renewed Facility Operating License No. NPF-35, filed by Duke Energy Carolinas, LLC (the licensee), dated December 15, 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.

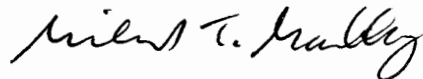
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-35 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 290 which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC 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



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-35
and Technical Specifications

Date of Issuance: July 21, 2017



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

DUKE ENERGY CAROLINAS, LLC
NORTH CAROLINA MUNICIPAL POWER AGENCY NO. 1
PIEDMONT MUNICIPAL POWER AGENCY
DOCKET NO. 50-414
CATAWBA NUCLEAR STATION, UNIT 2
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 286
Renewed License No. NPF-52

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 2 (the facility), Renewed Facility Operating License No. NPF-52, filed by Duke Energy Carolinas, LLC (the licensee), dated December 15, 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.

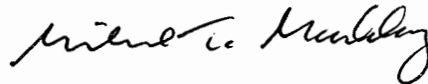
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-52 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 286, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC 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



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-52
and Technical Specifications

Date of Issuance: July 21, 2017

ATTACHMENT TO
CATAWBA NUCLEAR STATION, UNITS 1 AND 2
LICENSE AMENDMENT NO. 290
RENEWED FACILITY OPERATING LICENSE NO. NPF-35
DOCKET NO. 50-413
AND
LICENSE AMENDMENT NO. 286
RENEWED FACILITY OPERATING LICENSE NO. NPF-52
DOCKET NO. 50-414

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.

<u>Remove</u>	<u>Insert</u>
NPF-35, page 4	NPF-35, page 4
NPF-52, page 4	NPF-52, page 4

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.

<u>Remove</u>	<u>Insert</u>
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

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 290 which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC 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 December 6, 2024, 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) Antitrust Conditions

Duke Energy Carolinas, LLC shall comply with the antitrust conditions delineated in Appendix C to this renewed operating license.

(5) Fire Protection Program

Duke Energy Carolinas, LLC shall implement and maintain in effect all provisions of the approved fire protection program that complies with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated September 25, 2013; as supplemented by letters dated January 13, 2015; January 28, 2015; February 27, 2015; March 30, 2015; April 28, 2015; July 15, 2015; August 14, 2015; September 3, 2015; December 11, 2015; January 7, 2016; March 23, 2016; June 15, 2016; August 2, 2016; September 7, 2016; and, January 26, 2017, as approved in the SE dated February 8, 2017. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 286, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Carolinas, LLC 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 December 6, 2024, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

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Duke Energy Carolinas, LLC shall comply with the antitrust conditions delineated in Appendix C to this renewed operating license.

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ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. (continued)</p>	<p>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.</p>	<p>Once per 31 days for isolation devices outside containment <u>AND</u> Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p>
<p>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.</p>	<p>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.</p>	<p>1 hour</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. (continued)</p>	<p>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. <u>AND</u></p> <p>E.3 Perform SR 3.6.3.6 for the resilient seal purge valves closed to comply with Required Action E.1.</p>	<p>Once per 31 days for isolation devices outside containment</p> <p><u>AND</u></p> <p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p> <p>Once per 92 days</p>
<p>F. Required Action and associated Completion Time not met.</p>	<p>F.1 Be in MODE 3. <u>AND</u> F.2 Be in MODE 5.</p>	<p>6 hours</p> <p>36 hours</p>



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 290 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-35

AND

AMENDMENT NO. 286 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-52

DUKE ENERGY CAROLINAS, LLC

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By letter to the U.S. Nuclear Regulatory Commission (NRC, the Commission) dated December 15, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16350A422), Duke Energy Carolinas, LLC (Duke Energy, the licensee) submitted an application to amend the Technical Specifications (TSs) for Catawba Nuclear Station (CNS), Units 1 and 2.

This license amendment request (LAR) would modify TS 3.6.3, "Containment Isolation Valves," to add a Note to TS Limiting Condition for Operation (LCO) 3.6.3 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 NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-269-A, Revision 2, "Allow administrative means of position verification for locked or sealed valves."

The amendments would adopt previously NRC-approved TSTF-269-A, Revision 2 (ADAMS Legacy Accession No. 9907300113), in order to bring the CNS, Units 1 and 2 TSs, into closer alignment with NUREG-1431, "Standard Technical Specifications – Westinghouse Plants" (Westinghouse Owners Group (WOG) Standard Technical Specifications (STS) – hereafter "WOG STS" or "STS").

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.

On July 22, 1993, the Commission published in the *Federal Register* (FR) the "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" (58 FR 39132). This Final Policy Statement discussed criteria for determining which items should be included in the TSs as LCOs. These criteria were subsequently incorporated into 10 CFR 50.36 (60 FR 36953; July 19, 1995). Specifically, 10 CFR 50.36(c)(2)(ii) requires that an LCO be established for each item meeting one or more of the following criteria:

- Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The NRC staff used Revision 3 of the WOG STS (ADAMS Accession No. ML041830612) in its review of the TS changes proposed for CNS, Units 1 and 2. The NRC staff also referred to the TSTF Traveler associated with the STS changes proposed for CNS, Units 1 and 2.

3.0 TECHNICAL EVALUATION

3.1 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, hydrogen purge, or containment air release and addition valves not within 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. The current NOTE for Required Actions A.2, C.2, and E.2 would be renumbered to be NOTE 1.

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

3.2 NRC Staff's Technical Evaluation of Licensee's Proposed Changes

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.

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 provide adequate assurance to ensure that the valves are maintained in the positions required by the plant safety analyses when primary and secondary containment are required to be operable.

Additionally, the NRC staff concludes that the requirements of 10 CFR 50.36(c)(2) continue to be met. Based on the above, the NRC staff concludes that the proposed changes to TS LCO 3.6.3 are acceptable.

3.3 NRC Staff's Conclusion

The NRC staff concludes that the proposed TS changes, consistent with TSTF-269-A, Revision 2, are acceptable. The NRC concludes that the proposed administrative controls provide reasonable assurance of plant safety and the requirements of 10 CFR 50.36 continue to be met.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the South Carolina State official was notified of the proposed issuance of the amendments on June 12, 2017. On July 18, 2017, the State official confirmed that she 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 (82 FR 19098; April 25, 2017). 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: A. Smith, NRR

Date: July 21, 2017

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 – ISSUANCE OF AMENDMENTS ADOPTING TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER TSTF-269-A, REVISION 2 (CAC NOS. MF8983 and MF8984) DATED JULY 21, 2017

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ADAMS Accession No.: ML17165A441

*by memorandum

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