



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

July 25, 2012

Mr. J. R. Morris  
Site Vice President  
Catawba Nuclear Station  
Duke Energy Carolinas, LLC  
4800 Concord Road  
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS REGARDING DELETION OF SUPERSEDED TECHNICAL SPECIFICATION (TS) REQUIREMENTS FOLLOWING IMPLEMENTATION OF THE EMERGENCY CORE COOLING SYSTEM (ECCS) WATER MANAGEMENT INITIATIVE (TAC NOS. ME6893 AND ME6894)

Dear Mr. Morris:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 269 to Renewed Facility Operating License NPF-35 and Amendment No. 265 to Renewed Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2, respectively. The amendments consist of changes to the TSs in response to your application dated July 21, 2011.

The amendments revise TSs 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," 3.5.4, "Refueling Water Storage Tank (RWST)," and 3.6.6, "Containment Spray System."

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

If you have any questions, please call me at 301-415-1119.

Sincerely,

A handwritten signature in black ink that reads "Jon Thompson".

Jon Thompson, 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. 269 to NPF-35
2. Amendment No. 265 to NPF-52
3. Safety Evaluation

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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. 269  
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 the Duke Energy Carolinas, LLC, acting for itself, and North Carolina Electric Membership Corporation (licensees), dated July 21, 2011, 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.

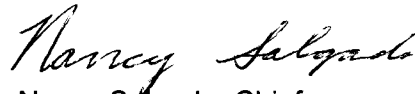
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-35 is hereby amended to read as follows:

- (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 269, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Nancy Salgado, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to License No. NPF-35  
and the Technical Specifications

Date of Issuance: July 25, 2012



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. 265  
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 the Duke Energy Carolinas, LLC, acting for itself, North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency (licensees), dated July 21, 2011, 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.

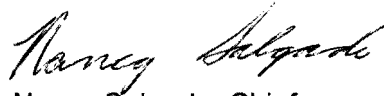
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-52 is hereby amended to read as follows:

- (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 265, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Nancy Salgado, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to License No. NPF-52  
and the Technical Specifications

Date of Issuance: July 25, 2012

ATTACHMENT TO  
LICENSE AMENDMENT NO. 269  
RENEWED FACILITY OPERATING LICENSE NO. NPF-35  
DOCKET NO. 50-413  
AND LICENSE AMENDMENT NO. 265  
RENEWED FACILITY OPERATING LICENSE NO. NPF-52  
DOCKET NO. 50-414

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

Remove

Licenses  
NPF-35, page 4  
NPF-52, page 4

TSs  
3.3.2-13  
3.3.2-17  
3.5.4-2  
3.6.6-1  
3.6.6-2

Insert

Licenses  
NPF-35, page 4  
NPF-52, page 4

TSs  
3.3.2-13  
3.3.2-17  
3.5.4-2  
3.6.6-1  
3.6.6-2

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No.269 , 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 (Section 9.5.1, SER, SSER #2, SSER #3, SSER #4, SSER #5)\*

Duke Energy Carolinas, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report, as amended, for the facility and as approved in the SER through Supplement 5, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

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\*The parenthetical notation following the title of this renewed operating license condition denotes the section of the Safety Evaluation Report and/or its supplement wherein this renewed license condition is discussed.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 265, 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 February 24, 2026, 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.

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

(5) Fire Protection Program (Section 9.5.1, SER, SSER #2, SSER #3, SSER #4, SSER #5)\*

Duke Energy Carolinas, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report, as amended, for the facility and as approved in the SER through Supplement 5, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

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\*The parenthetical notation following the title of this renewed operating license condition denotes the section of the Safety Evaluation Report and/or its supplements wherein this renewed license condition is discussed.



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

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
1. Safety Injection <sup>(b)</sup>						
a. Manual initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure - High	1,2,3	3	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 1.4 psig	1.2 psig
d. Pressurizer Pressure - Low	1,2,3(a)	4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 1839 psig	1845 psig
2. Deleted.						
3. Containment Isolation <sup>(b)</sup>						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					

(continued)

(a) Above the P-11 (Pressurizer Pressure) interlock.

(b) The requirements of this Function are not applicable to Containment Purge Ventilation System and Hydrogen Purge System components, since the system containment isolation valves are sealed closed in MODES 1, 2, 3, and 4.

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

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
<b>7. Automatic Switchover to Containment Sump</b>						
a. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
b. Refueling Water Storage Tank (RWST) Level – Low	1,2,3,4	4	N	SR 3.3.2.1 SR 3.3.2.7 <sup>(a)(b)</sup> SR 3.3.2.9 <sup>(a)(b)</sup> SR 3.3.2.10	≥ 91.9 inches	95 inches
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
<b>8. ESFAS Interlocks</b>						
a. Reactor Trip, P-4	1,2,3	1 per train, 2 trains	F	SR 3.3.2.8	NA	NA
b. Pressurizer Pressure, P-11	1,2,3	3	O	SR 3.3.2.5 SR 3.3.2.9	≥ 1944 and ≤ 1966 psig	1955 psig
c. T <sub>avg</sub> - Low Low, P-12	1,2,3	1 per loop	O	SR 3.3.2.5 SR 3.3.2.9	≥ 550°F	553°F
<b>9. Containment Pressure Control System</b>						
a. Start Permissive	1,2,3,4	4 per train	P	SR 3.3.2.1 SR 3.3.2.7 SR 3.3.2.9	≤ 1.0 psid	0.9 psid
b. Termination	1,2,3,4	4 per train	P	SR 3.3.2.1 SR 3.3.2.7 SR 3.3.2.9	≥ 0.25 psid	0.35 psid
<b>10. Nuclear Service Water Suction Transfer - Low Pit Level</b>						
	1,2,3,4	3 per pit	Q,R	SR 3.3.2.1 SR 3.3.2.9 SR 3.3.2.11 SR 3.3.2.12	≥ El. 555.4 ft	El. 557.5 ft

(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.

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
SR 3.5.4.1 Verify RWST borated water temperature is $\geq 70^{\circ}\text{F}$ and $\leq 100^{\circ}\text{F}$ .	In accordance with the Surveillance Frequency Control Program
SR 3.5.4.2 Verify RWST borated water volume is $\geq 377,537$ gallons.	In accordance with the Surveillance Frequency Control Program
SR 3.5.4.3 Verify RWST boron concentration is within the limits specified in the COLR.	In accordance with the Surveillance Frequency Control Program

3.6 CONTAINMENT SYSTEMS

3.6.6 Containment Spray System

LCO 3.6.6 Two containment spray trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

**ACTIONS**

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One containment spray train inoperable.	A.1 Restore containment spray train to OPERABLE status.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	84 hours

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
SR 3.6.6.1 Verify each containment spray manual and power operated valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	In accordance with the Surveillance Frequency Control Program

(continued)

**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE	FREQUENCY
SR 3.6.6.2 Verify each containment spray pump's developed head at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.6.6.3 Deleted.	
SR 3.6.6.4 Deleted.	
SR 3.6.6.5 Verify that each spray pump is de-energized and prevented from starting upon receipt of a terminate signal and is allowed to manually start upon receipt of a start permissive from the Containment Pressure Control System (CPCS).	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.6 Verify that each spray pump discharge valve closes or is prevented from opening upon receipt of a terminate signal and is allowed to manually open upon receipt of a start permissive from the Containment Pressure Control System (CPCS).	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.7 Verify each spray nozzle is unobstructed.	Following activities which could result in nozzle blockage



UNITED STATES  
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 269 TO RENEWED FACILITY OPERATING LICENSE NPF-35

AND

AMENDMENT NO. 265 TO RENEWED FACILITY OPERATING LICENSE NPF-52

DUKE ENERGY CAROLINAS, LLC

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

## 1.0 INTRODUCTION

By application dated July 21, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11208B449), Duke Energy Carolinas, LLC (Duke, the licensee), requested changes to the Technical Specifications (TSs) for the Catawba Nuclear Station, Units 1 and 2 (Catawba 1 and 2). The proposed changes would revise TSs 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," 3.5.4, "Refueling Water Storage Tank (RWST)," and 3.6.6, "Containment Spray System," in order to delete superseded TS requirements following implementation of the emergency core cooling system (ECCS) water management initiative license amendments for Catawba 1 and 2 which were approved by the NRC staff by letter dated June 28, 2010 (ADAMS Accession No. ML092530088).

## 2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. The NRC's regulatory requirements related to the content of the TSs are contained in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.36, "Technical specifications." The TS requirements in 10 CFR 50.36 include the following categories: (1) safety limits, limiting safety systems settings and control settings, (2) limiting conditions for operation, (3) surveillance requirements (SRs), (4) design features, (5) administrative controls, (6) decommissioning, (7) initial notification, and (8) written reports. The regulation at 10 CFR 50.36 also assures that the TS limiting conditions for operations are consistent with assumed values of the initial conditions in the licensee's safety analyses.

The ECCS must be designed so that its calculated cooling performance following postulated LOCAs conforms to 10 CFR 50.46(b)(5) requirements.

The regulation at 10 CFR 50.49, "Environmental qualification of electric equipment important to safety for nuclear power plants," requires that the safety-related electrical equipment which is relied upon to remain functional during and following design-basis events be qualified for accident (harsh) environment. This provides assurance that the equipment needed in the event of an accident will perform its intended function.

The regulation at 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires that preventative maintenance activities must not reduce the overall availability of the systems, structures, or components.

The regulation at 10 CFR 50.67, "Accident source term," applies to all licensees who seek to revise the current accident source term used in their design-basis radiological analyses.

The regulation at 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," provides requirements for training and qualification of personnel, including human factors considerations.

The regulation at 10 CFR, Part 50, Appendix A, "General Design Criteria [GDC] for Nuclear Power Plants," establishes minimum requirements for the principal design criteria for water-cooled nuclear power plants similar in design and location to plants for which construction permits have been issued by the NRC. The GDC are also considered to be generally applicable to other types of nuclear power units and are intended to provide guidance in establishing the principal design criteria for such other units. Chapter 3, Section 3.1, of the Catawba 1 and 2 Updated Final Safety Analysis Report describes the GDC applicable to Catawba 1 and 2.

The regulation at 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," was considered in the review.

The regulation at 10 CFR Part 55, "Operators Licenses," was considered in the review.

Regulatory guidance documents considered in this review included:

- NUREG-0800, "Standard Review Plan,"
- NUREG-0711, "Human Factors Engineering Program Review Model," Revision 2,
- NUREG-1764, "Guidance for the Review of Changes to Human Actions,"
- Generic Safety Issue 191, "Assessment of Debris Accumulation on [pressurized-water reactors] PWR Sump Performance,"
- RG 1.105, Revision 3, "Setpoints for Safety-Related Instrumentation," issued December 1999, describes a method acceptable to the NRC staff for complying with the U.S. Nuclear Regulatory Commission (NRC) regulations for ensuring that setpoints for safetyrelated instrumentation are initially within, and remain within the TS limits,
- Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors,"

- Regulatory Issue Summary 2006-17, "NRC Staff Position on the Requirements of 10 CFR 50.36, 'Technical Specifications,' Regarding Limiting Safety System Settings during Periodic Testing and Calibration of Instrument Channels," dated August 24, 2006, described an acceptable method to meet the requirements of 10 CFR 50.36,
- Information Notice 97-78, "Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times,"
- GL 82-33, "Supplement 1 to NUREG-0737 - Requirements for Emergency Response Capability."

### 3.0 TECHNICAL EVALUATION

The licensee by letter dated September 2, 2008, (ADAMS Accession No. ML082490094), as supplemented by letters dated June 18, 2009 (ADAMS Accession No. ML091750057), July 8, 2009 (ADAMS Accession No. ML091960176), August 13, 2009 (ADAMS Accession No. ML092260586), September 8, 2009 (ADAMS Accession No. ML092590042), November 10, 2009, (ADAMS Accession No. ML093170217), and March 8, 2010 (ADAMS Accession No. ML100700687), submitted a license amendment request (LAR) to revise the Catawba 1 and 2 TSs to approve ECCS water management initiative modifications, which included allowing manual operation of the containment spray system (CS) and to revision of the upper and lower limits on the refueling water storage tank (RWST). The NRC staff approved this LAR by letter dated June 28, 2010.

In its letter dated September 2, 2008, the licensee made the following regulatory commitment:

Within 180 days of the implementation of the associated modifications for the final unit, Catawba [1 and 2] will submit a follow-up administrative license amendment request to delete the superseded TS and Bases requirements.

The ECCS water management initiative modifications described in the licensee's letter dated September 2, 2008, have now been implemented for both Catawba 1 and 2. The Catawba 2 ECCS water management modifications were implemented during the End of Cycle (EOC) 17 Refueling Outage (RFO) in the Fall of 2010. The Catawba 1 ECCS water management modifications were implemented during the EOC 19 RFO in the Spring of 2011. Subsequently, in accordance with the commitment described above, the licensee submitted an LAR dated July 21, 2011, to delete the superseded TS requirements in TS Sections 3.3.2, 3.5.4 and 3.6.6 and revise the language of these TS sections to be consistent with the completed implementation of the ECCS water management modifications.

#### 3.1 Proposed Changes to TS 3.3.2, "ESFAS Instrumentation"

The LAR dated July 21, 2011, proposed changes to TS 3.3.2. First, Table 3.3.2-1 would be annotated to delete Function 2, "Containment Spray," in its entirety, along with the footnote at the bottom of page 3.3.2-13 of the TSs associated with Function 2 and marked with an asterisk. The CS is no longer an ESFAS actuated system following implementation of the ECCS water



management modifications described in the licensee's LAR dated September 2, 2008, as supplemented by letters dated June 18, 2009, July 8, 2009, August 13, 2009, September 8, 2009, November 10, 2009, and March 8, 2010

These changes are acceptable based on the fact that implementation of these modifications has already been reviewed and accepted by the NRC staff in its safety evaluation (SE) dated June 28, 2010, and based on the fact that implementation of these modifications is complete as stated in the LAR dated July 21, 2011. The changes proposed in the LAR dated July 21, 2011, only reflect the implementation of changes that have prior NRC staff approval and the removal of TS requirements which no longer apply to Catawba 1 and 2 after implementation of the ECCS water management modifications.

Second, the LAR dated July 21, 2011, also proposed to change Table 3.3.2-1 by revising Function 7b, "Refueling Water Storage Tank (RWST) Level – Low," to reflect the allowable value (AV) and nominal trip setpoint (NTSP) for the RWST level to be used after the ECCS water management modifications were complete and also to remove the associated footnote on page 3.3.2-17 of the TSs. The AV and NTSP currently listed on page 3.3.2-17, Function 7b, are no longer used following implementation of the ECCS water management modifications.

These changes are acceptable based on the fact that implementation of these changed values for the AV and NTSP for Function 7b of Table 3.3.2-1 have already been reviewed and accepted by the NRC staff in its SE dated June 28, 2010, and based on the fact that implementation of these modifications is complete as stated in the LAR dated July 21, 2011. The changes proposed in the LAR dated July 21, 2011, only reflect the implementation of changes that have prior NRC staff approval and the removal of TS requirements which no longer apply to Catawba 1 and 2 after implementation of the ECCS water management modifications.

### 3.2 Proposed Changes to TS 3.5.4, "Refueling Water Storage Tank (RWST)"

The LAR dated July 21, 2011, proposed changes to TS 3.5.4. The SR 3.5.4.2 would be revised to reflect a changed value for the RWST borated water volume. The associated footnote on the bottom of page 3.5.4-2 of the TSs would also be deleted. The older value for the RWST borated water volume is no longer used following implementation of the ECCS water management modifications.

These changes are acceptable based on the fact that implementation of this changed SR has already been reviewed and accepted by the NRC staff in its SE dated June 28, 2010, and based on the fact that implementation of the ECCS water management modifications is complete as stated in the LAR dated July 21, 2011. The changes proposed in the LAR dated July 21, 2011, only reflect the implementation of changes that have prior NRC staff approval and the removal of TS requirements which no longer apply to Catawba 1 and 2 after implementation of the ECCS Water Management modifications.

### 3.3 Proposed Changes to TS 3.6.6, "Containment Spray System"

The LAR dated July 21, 2011, proposed changes to three SRs in TS 3.6.6. First, SR 3.6.6.1 would be annotated to delete reference to automatic valves in the CS, along with the associated

footnote on the bottom of page 3.6.6-1 of the TSs. There are no automatic valves in the CS following implementation of the ECCS water management modifications.

These changes are acceptable based on the fact that implementation of this changed SR has already been reviewed and accepted by the NRC staff in its SE dated June 28, 2010, and based on the fact that implementation of the ECCS water management modifications is complete as stated in the LAR dated July 21, 2011. The changes proposed in the LAR dated July 21, 2011, only reflect the implementation of changes that have prior NRC staff approval and the removal of TS requirements which no longer apply to Catawba 1 and 2 after implementation of the ECCS water management modifications.

Second, the LAR dated July 21, 2011, also proposed the removal of SR 3.6.6.3 and SR 3.6.6.4, along with their associated footnotes at the bottom of page 3.6.6-2 of the TSs. The SRs 3.6.6.3 and 3.6.6.4 are longer applicable after the implementation of the ECCS water management modifications. After these modifications, there are no longer any automatic valves in the CS and the pumps no longer receive any automatic start signals.

These changes are acceptable based on the fact that implementation of these changed SRs has already been reviewed and accepted by the NRC staff in its SE dated June 28, 2010, and based on the fact that implementation of the ECCS water management modifications is complete as stated in the LAR dated July 21, 2011. The changes proposed in the LAR dated July 21, 2011, only reflect the implementation of changes that have prior NRC staff approval and the removal of TS requirements which no longer apply to Catawba 1 and 2 after implementation of the ECCS water management modifications.

#### 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. 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 and change surveillance requirements. 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 such finding (77 FR 16274). 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: J. Thompson, NRR

Date: July 25, 2012

July 25, 2012

Mr. J. R. Morris  
Site Vice President  
Catawba Nuclear Station  
Duke Energy Carolinas, LLC  
4800 Concord Road  
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS REGARDING DELETION OF SUPERSEDED TECHNICAL SPECIFICATION (TS) REQUIREMENTS FOLLOWING IMPLEMENTATION OF THE EMERGENCY CORE COOLING SYSTEM (ECCS) WATER MANAGEMENT INITIATIVE (TAC NOS. ME6893 AND ME6894)

Dear Mr. Morris:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 269 to Renewed Facility Operating License NPF-35 and Amendment No. 265 to Renewed Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2, respectively. The amendments consist of changes to the TSs in response to your application dated July 21, 2011.

The amendments revise TSs 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," 3.5.4, "Refueling Water Storage Tank (RWST)," and 3.6.6, "Containment Spray System."

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

If you have any questions, please call me at 301-415-1119.

Sincerely,

/RA/

Jon Thompson, 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. 269 to NPF-35
2. Amendment No. 265 to NPF-52
3. Safety Evaluation
3. Safety Evaluation

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