



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

February 28, 2014

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

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENTS REGARDING THE REMOVAL OF SUPERSEDED TECHNICAL
SPECIFICATIONS REQUIREMENTS (TAC NOS. MF1732 AND MF1733)

Dear Mr. Capps:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No.272 to Renewed Facility Operating License NPF-9 and Amendment No.252 to Renewed Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2, respectively. The amendments consist of changes to remove superseded Technical Specifications (TS) and Bases Requirements. The amendments delete or modify previous TS requirements, which were accomplished via the use of temporary footnotes.

By letter dated May 28, 2010, Duke Energy Carolinas, LLC (Duke Energy, the licensee), submitted a license amendment request (LAR) to allow manual operation of the containment spray system for McGuire Nuclear Station (MNS) Units 1 and 2, and to revise the minimum volume and low level setpoint on the Refueling Water Storage Tank (RWST). By letter dated September 12, 2011, the NRC issued a safety evaluation granting the TS changes requested in the May 28, 2010, LAR. The licensee made a commitment to follow-up after the installation of the associated modifications by submitting an administrative LAR with non-technical editorial corrections for these temporary TS requirements. Installation of the associated modifications on the final MNS unit was completed on October 18, 2012.

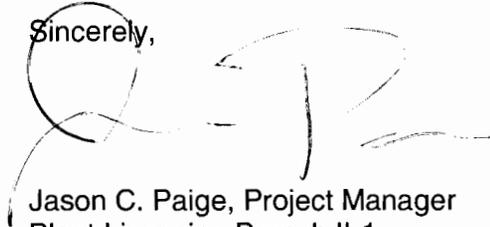
A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

S. Capps

- 2 -

If you have any questions, please call me at 301-415-5888.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Paige", written over a circular stamp or mark.

Jason C. Paige, 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. 272 to NPF-9
2. Amendment No. 252 to NPF-17
3. Safety Evaluation

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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. 272
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 April 16, 2013, 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. 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: February 28, 2014



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. 252
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 Duke Energy Carolinas, LLC (the licensee), dated April 16, 2013, 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. 252, 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 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: February 28, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 272
RENEWED FACILITY OPERATING LICENSE NO. NPF-9
DOCKET NO. 50-369
AND
LICENSE AMENDMENT NO. 252
RENEWED FACILITY OPERATING LICENSE NO. NPF-17
DOCKET NO. 50-370

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.

<u>Remove</u>	<u>Insert</u>
Licenses	Licenses
NPF-9, page 3	NPF-9, page 3
NPF-17, page 3	NPF-17, page 3
TSs	TSs
3.3.2-10	3.3.2-10
3.3.2-14	3.3.2-14
3.3.2-15	3.3.2-15
3.5.4-2	3.5.4-2
3.6.6-1	3.6.6-1
3.6.6-2	3.6.6-2

- (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. 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 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 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. 252 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 1 of 6)
Engineered Safety Feature Actuation System Instrumentation

<i>FUNCTION</i>	<i>APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS</i>	<i>REQUIRED CHANNELS</i>	<i>CONDITIONS</i>	<i>SURVEILLANCE REQUIREMENTS</i>	<i>ALLOWABLE VALUE</i>	<i>NOMINAL TRIP SETPOINT</i>
1. Safety Injection						
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.7	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 3.3.2.8 SR 3.3.2.9	≤ 1.2 psig	1.1 psig
d. Pressurizer Pressure - Low Low	1,2,3(a)	4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.8 SR 3.3.2.9	≥ 1835 psig	1845 psig
2. Not Used						
3. Containment Isolation						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.7	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

(continued)

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

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 SR 3.3.2.8 SR 3.3.2.9	≥ 3 psig	3.5 psig
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.

Table 3.3.2-1 (page 6 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
8. ESFAS Interlocks						
a. Reactor Trip, P-4	1,2,3	1 per train, 2 trains	F	SR 3.3.2.7	NA	NA
b. Pressurizer Pressure, P-11	1,2,3	3	Q	SR 3.3.2.5 SR 3.3.2.8	≤ 1965 psig	1955 psig
c. T _{avg} - Low Low, P-12	1,2,3	1 per loop	Q	SR 3.3.2.5 SR 3.3.2.8	≥ 551°F	553°F
9. Containment Pressure Control System	1,2,3,4	4 per train, 2 trains	R	SR 3.3.2.1 SR 3.3.2.3 SR 3.3.2.8	Refer to Note 1 on Page 3.3.2-14	Refer to Note 1 on page 3.3.2-14

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 $\geq 383,146$ 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)

Containment Spray System
3.6.6

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 Not Used	Not Used
SR 3.6.6.4 Not Used	Not Used
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
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 272 TO RENEWED FACILITY OPERATING LICENSE NPF-9

AND

AMENDMENT NO. 252 TO RENEWED FACILITY OPERATING LICENSE 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 dated April 16, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13116A302), Duke Energy Carolinas, LLC (Duke Energy, the licensee), requested to remove superseded Technical Specifications (TS) and Bases Requirements. This license amendment request (LAR) proposed the deletion or modification of previous TS requirements, which were accomplished via the use of temporary footnotes.

By letter dated May 28, 2010 (ADAMS Accession No. ML101600256), the licensee, submitted a LAR to allow manual operation of the containment spray system for McGuire Nuclear Station (MNS), Units 1 and 2, and to revise the minimum volume and low level setpoint on the Refueling Water Storage Tank (RWST). By letter dated September 12, 2011 (ADAMS Accession No. ML11131A133), the NRC issued a safety evaluation granting the TS changes requested in the May 28, 2010, LAR. The licensee made a commitment to follow-up after the installation of the associated modifications by submitting an administrative LAR with non-technical editorial corrections for these temporary TS requirements. Installation of the associated modifications on the final MNS unit was completed on October 18, 2012.

2.0 BACKGROUND

The purpose of the April 16, 2013, LAR is to implement a previous commitment by Duke Energy to submit a follow-up administrative LAR to delete the superseded TS and Bases Requirements within 180 days of the installation of the associated modifications to the final MNS unit. Accordingly, the LAR proposes the deletion or modification of these previous TS requirements, which were accomplished via the use of temporary footnotes.

The editorial changes along with the technical modifications were implemented on a staggered basis for each MNS unit resulting in one marked-up version applicable to the existing pre-LAR plant configuration and one marked-up version applicable to the post-LAR modified plan configuration. The associated technical modifications were completed on October 18, 2012, and the pre-LAR TS plant configurations were removed.

As a result, the final plant configuration now reflects the post-LAR modified plant configuration. This follow-up administrative LAR satisfies Duke Energy's commitment and demonstrates the removal of the temporary TS requirements. The original technical modifications proposed per the May 28, 2010, LAR can be found with the post-LAR editorial changes in the following TS sections:

3.3.2 Engineering Safety Features Actuation System (ESFAS) Instrumentation,
3.5.4 Refueling Water Storage Tank (RWST), and
3.6.6 Containment Spray System (CSS).

These sections outline the temporary TS footnotes and the associated technical modifications as part of the original LAR's technical work scope. The technical objective was to maximize available RWST water for an emergency core cooling scenario such as a loss-of-coolant accident (LOCA) or a large steamline break (SLB). In order to accomplish this, the licensee's calculations based on the Duke Energy containment response methodology determined that removing the CSS water usage from the RWST would add a minimum overall risk to the initial containment temperature and pressure response during an event. The calculations also determined that increasing the minimum RWST inventory, lowering the RWST low level setpoints, and removing the automated CSS start command from the ESFAS would increase the available volume of the RWST. By implementing these technical modifications, the operator's time to evaluate the scenario would increase and, more importantly, these modifications would decrease the probability of a core melt. The NRC staff concluded that the modifications were acceptable based on the SE included with the issuance of the license amendment dated September 12, 2011.

The final editorial changes proposed in the post-LAR modified plant configuration complete the required TS and surveillance configuration for the technical work scope.

3.0 REGULATORY EVALUATION

The original technical modifications were proposed on May 28, 2010, and were intended to improve safety. This follow-up administrative LAR consists of editorial changes to be made in accordance with licensee commitments following the completion of the technical modifications. The NRC staff evaluation of this follow-up administrative LAR is based on the following regulations and guidance documents:

- Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, General Design Criteria (GDC) 1, "Quality standards and records," which states, in part, that appropriate records of the design, fabrication erection, and testing of structures, systems, and components important to safety shall be maintained by or under the control of the nuclear power unit licensee through out the life of the unit.
- 10 CFR Part 50, Appendix A, GDC 13, "Instrumentation and control," which states, in part, that instrumentation shall be provided to monitor variables and systems over their

anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety, including those variables and systems that can affect the fission process, the integrity of the reactor core, the reactor coolant pressure boundary, and the containment and its associated systems.

- Regulatory Guide (RG) 1.105, Revision 3, "Setpoints for Safety-Related Instrumentation," which describes a method acceptable to the NRC staff for complying with the NRC's regulations for ensuring that setpoints for safety-related instrumentation are initially within, and remain within, the TS limits.

4.0 TECHNICAL EVALUATION

The purpose of this amendment request is to demonstrate that the post-LAR (or April 16, 2013, LAR) editorial changes are complete and that they satisfy the licensee's commitment to submit complete and accurate follow-up records within 180 days of the installation of the associated modifications for the final MNS unit. The licensee has a final version of the post-LAR containing ten detailed proposed descriptions of the editorial deletions or modifications of the TS and Bases Requirements, which were verified by the NRC staff for completeness and accuracy.

This non-technical safety evaluation of the ten proposed changes confirms that the licensee has made appropriate editorial changes to the post-LAR TS and has deleted the pre-LAR plant configuration. Each proposed change is summarized below. The NRC staff review verified that the appropriate technical modifications and TS and Basis Requirements edits described in the license amendment dated September 12, 2011, aligned with the final version of the post-LAR modified plan configuration records.

The following evaluation references the April 16, 2013, LAR changes.

Proposed Change 1:

The documentation changes to the TS 3.3.2 ESFAS instrumentation in Table 3.3.2-1 (page 3.3.2-10) involved the removal of the containment spray (CS) requirements in order to match the technical design modifications. The CS change from automatic control to manual actuation at the low-low tank level setpoint would directly reduce water drawn from the RWST. The CS would no longer operate under the control of the engineering safety feature actuation system and would require alignment with the containment sump.

There was some concern regarding the complete removal of a manual TS or surveillance reference for the CS; however, with further review of the safety evaluation, September 12, 2011, (ADAMS Accession No. ML11131A133), this concern was resolved and the solution was confirmed with MNS. The need for manual control initiation in Table 3.3.2-1 is not required as per the 2011 safety evaluation. The approved licensee changes to the MNS, Unit 1 and 2, TS by modifying automated control logic to a manual start was based on the Duke Energy containment response methodology calculations. The removal of automatic initiated CS during the Design-Basis Accident did not cause a substantial rise in the containment temperature or pressure above the licensed design. The manual initiation operation of the CS by the operator is still available, however only at the low-low RWST level and when containment pressure is greater than 3 pounds per square inch gauge (psig).

The notation of a manual action is not required under the ESFAS Table 3.3.2-1. Therefore, the proposed editorial changes to item "2. Not Used" on Table 3.3.2-1, along with modification of the temporary footnote, were correctly implemented.

Proposed Changes 2:

The proposed TS 3.3.2 ESFAS documentation was completed with new design setpoints on Table 3.3.2-1 (page 3.3.2-14). The new RWST setpoint values match the original license amendment dated September 12, 2011 (ADAMS Accession No. ML11131A133). The new RWST low and low-low setpoint alarm and controls have been lowered from 36% to 19% full level (95 inches) and 6.6% to 4% full level (92.3 inches), respectfully. The high and intermediate head injection safety pumps will remain aligned with the RWST intake below the low level setpoint and before the low-low setpoint. Given the lower flow rates, there is sufficient time for the operator to check the containment sump levels before transferring the high and intermediate head injection safety pumps to the residual heat removal pump discharge. This allows for a more controlled and slower depletion of the RWST inventory and satisfies the objective to increase the RWST tank volume. The editorial documentation changes are correct for this post-LAR modified plan configuration record.

Proposed Change 3:

The licensee submitted a new RWST full setpoint under Surveillance Requirement (SR) 3.5.4.2. The RWST borated volume was increased from 372,100 gallons to 383,146 gallons, while including a new approved tank level instrument for a more refined reading to correctly monitor the new volume. The editorial temporary footnote on page 3.5.4-2 was removed. This completes the proposed editorial changes to SR 3.5.4.2.

Proposed Change 4:

The proposed editorial changes to TS 3.6.6, "Containment Spray System," on page 3.6.6-1 involved updating SR 3.6.6.1 by deleting the term "automatic" and removing the associated temporary footnote. The CS valve flow path directions were verified with the understanding that there are no "automatic" valve alignments in the CSS, and that CS will be manually initiated and aligned to the containment sump. The automatic action term for SR 3.6.6.1 has been edited correctly along with the associated temporary footnote.

Proposed Changes 5 and 6:

On page 3.6.6-2 the CSS automated actions described under SRs 3.6.6.3 and 3.6.6.4 have been completely deleted as the automated actuation signals no longer exist from the ESFAS. With the hardware circuit changes the surveillance for verifying the automatic containment spray valve and pump for the proper flow path are no longer required. The surveillance, frequency records and the associated temporary footnote are no longer used and have been correctly edited.

Proposed Changes 7 and 8:

Continuing on page 3.6.6-2, the CSS actions described under SRs 3.6.6.5 and 3.6.6.6 include the new term “manually,” when the operator uses the CS. The Containment Pressure Control System’s spray pump and spray pump discharge valve are now manually started or opened upon receipt of a permissive. The term “manually” is now used to indicate that the operator is involved in the CS function. This completes the proposed editorial changes for the CSS actions described under SRs 3.6.6.5 and 3.6.6.6. The associated footnotes were also properly deleted.

Proposed Changes 9 and 10:

The proposed change 9 deletes the “NOTE 1” from page 3.3.2-15 and the proposed change 10 adds the same “NOTE 1” to page 3.3.2-14. The function “Containment Pressure Control System,” on page 3.3.2-15 under “Allowable Value” states to refer to Note 1 on page 3.3.2-14. The proposed editorial change provides the correction to this in-text citation error. The relocating of “NOTE 1” to TS page 3.3.2-14 is acceptable and consistent with the in-text referencing.

4.1 Conclusion

Based on the NRC staff’s review of the above information, the NRC staff concludes that the proposed changes satisfy the licensee’s commitment to submit an administrative LAR that contains non-technical editorial corrections for the temporary TS requirements associated with the modifications after their installation.

5.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the North Carolina State official was notified of the proposed issuance of the amendments. The State official had no comments.

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 such finding, which was published in the *Federal Register* on June 25, 2013 (78 FR 38081). 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 instrumentation alterations were approved by the NRC staff in the September 12, 2011, license amendment. Thus, this non-technical editorial review validates that the final proposed configuration plan documentation is consistent with the changes to the original technical

modifications, where the acceptance criteria employed the setpoint regulatory guide (RG 1.105) and the regulatory requirement of GDC 13. The completion of this license amendment also included GDC 1 for this final validation for the appropriate records of the instrument design.

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.

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