



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

August 17, 2009

Mr. Bruce H. Hamilton
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 REQUEST TO REVISE TECHNICAL SPECIFICATION 5.5.8, "INSERVICE TESTING PROGRAM," TO ADOPT TECHNICAL SPECIFICATION CHANGE TRAVELERS TSTF-479, REV. 0 AND TSTF-497, REV. 0 (TAC NOS. MD9581 AND MD9582)

Dear Mr. Hamilton:

The Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 252 to Renewed Facility Operating License NPF-9 and Amendment No. 232 to Renewed Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated August 21, 2008.

The amendments revise the TS Administrative Controls section pertaining to requirements for the Inservice Testing Program, consistent with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.55a(f)(4) for pumps and valves which are classified as American Society of Mechanical Engineers, *Boiler and Pressure Vessel Code*, Class 1, Class 2, and Class 3. The NRC issued letters on December 6, 2005, indicating the acceptability of Technical Specification Task Force (TSTF) Change Traveler TSTF-479, Rev. 0, and October 4, 2006, indicating the acceptability of TSTF-497, Rev. 0.

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.

B. Hamilton

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

Sincerely,

A handwritten signature in black ink that reads "Jon Thompson". The signature is written in a cursive, flowing style.

Jon Thompson, 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. 252 to NPF-9
2. Amendment No. 232 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. 252
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 the Duke Energy Carolinas, LLC (licensee), dated August 21, 2008, 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. 252 , are hereby incorporated into this 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



Undine Shoop, Acting 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: August 17, 2009



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. 232
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 August 21, 2008, 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. 232 , are hereby incorporated into this 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



Undine Shoop, Acting 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: August 17, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 252

RENEWED FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

LICENSE AMENDMENT NO. 232

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>
License Pages	License Pages
NPF-9, page 3 NPF-17, page 3	NPF-9, page 3 NPF-17, page 3
TS Pages	TS Pages
5.5-6	5.5-6

- (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 J 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 3411 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 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 3411 megawatts thermal (100%).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 232, 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.

5.5 Programs and Manuals (continued)

5.5.8 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components including applicable supports. The program shall include the following:

- a. Testing frequencies applicable to the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code) and applicable Addenda as follows:

ASME OM Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

- b. The provisions of SR 3.0.2 are applicable to the above required Frequencies and to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities;
- c. The provisions of SR 3.0.3 are applicable to inservice testing activities; and
- d. Nothing in the ASME OM Code shall be construed to supersede the requirements of any TS.

5.5.9 Steam Generator (SG) Program

A Steam Generator Program shall be established and implemented to ensure that SG tube integrity is maintained. In addition, the Steam Generator Program shall include the following provisions:

- a. Provisions for condition monitoring assessments. Condition monitoring assessment means an evaluation of the "as found" condition of the tubing with respect to the performance criteria for structural integrity and accident induced leakage. The "as found" condition refers to the condition of the tubing during an SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 252 TO RENEWED FACILITY OPERATING LICENSE NPF-9

AND

AMENDMENT NO. 232 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 application dated August 21, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082470530), Duke Energy Carolinas, LLC (Duke, the licensee), requested changes to the Technical Specifications (TSs) for the McGuire Nuclear Station, Units 1 and 2 (McGuire 1 and 2).

The proposed changes would adopt TS Task Force (TSTF) Change Travelers TSTF-479, Revision 0, and TSTF-497, Revision 0, to revise the TS Administrative Controls, "Inservice Testing Program," for consistency with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(f)(4). The amendments would replace the Inservice Testing (IST) Program reference from the American Society of Mechanical Engineers, *Boiler and Pressure Vessel Code* (ASME Code), Section XI to reference the ASME Code for Operation and Maintenance of Nuclear Power Plants (ASME OM Code). This change would eliminate the inconsistency in the ASME Code between the revised IST program and the current TS, as required by 10 CFR 50.55a(f)(5)(ii). Additionally, the amendment would extend the applicability of Surveillance Requirement (SR) 3.0.2 provisions to other normal and accelerated frequencies specified as 2 years or less in the IST program.

2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include Technical Specifications as part of the license. These TSs are derived from the plant safety analysis.

Section 50.55a(f)(4) of 10 CFR Part 50 requires, in part, that ASME Code Class 1, 2, and 3 components must meet the IST requirements of the ASME OM Code. Section 50.55a(f)(4)(ii) requires that IST programs be revised every 10 years (120 months) to comply with the

requirements of the latest edition and addenda of the ASME OM Code that is incorporated by reference in 10 CFR 50.55a(b)(3). Section 50.55a(f)(5)(ii) requires that, if a revised IST program for a facility conflicts with the TSs for that facility, the licensee shall apply to the NRC for amendment of the TSs to conform the TSs to the revised program. The licensee is required to submit the application at least 6 months before the start of the period during which the provisions become applicable, in accordance with 50.55a(f)(4).

The McGuire 1 and 2 third 10-year interval IST program was developed to meet the requirements of the 1998 Edition through 2000 Addenda of the ASME OM Code pursuant to 10 CFR 50.55a(f)(4)(ii). The third 10-year IST interval for McGuire 1 and 2 began March 1, 2004.

The ASME OM Code was initially incorporated by reference in 10 CFR 50.55a(b)(3) in a final rule dated September 22, 1999 (64 FR 51370). Prior to the final rule, IST programs were required to meet the requirements of Section XI, Division 1, of the ASME Code. The rules for IST of pumps and valves were deleted from ASME Code, Section XI in the 2000 Addenda after the IST rules were placed in the ASME OM Code. The McGuire 1 and 2 third 10-year interval IST program for pumps and valves was developed to meet the requirements of the ASME OM Code. This TS amendment addresses Change Travelers TSTF-479, Revision 0, "Changes to Reflect Revision of 10 CFR 50.55a," and TSTF-497, Revision 0, "Limit Inservice Testing Program SR 3.0.2 Application to Frequencies of 2 Years or Less." The NRC staff approved TSTF-479 on December 6, 2009 and TSTF-497 on October 4, 2006, respectively. TSTF-479 addressed changes to Section 5.5.8, "Inservice Testing Program," to reflect the revisions to 10 CFR 50.55a referencing the ASME OM Code and the application of SR 3.0.2 to test frequencies specified in the IST program. TSTF-497 updated Section 5.5.8.b to specify that the provisions of SR 3.0.2 apply only to IST frequencies of 2 years or less.

The NRC staff reviewed the proposed changes for consistency with TSTF-479, Revision 0, and TSTF-497, Revision 0, and to ensure that the TSs continue to meet 10 CFR 50.36, "Technical specifications." In general, licensees cannot justify TS changes solely on the basis of adopting the model Standardized TSs. To ensure acceptability, the NRC staff makes a determination that proposed changes maintain adequate safety.

Licensees may revise the TSs to adopt improved Standard TS format and content provided that plant-specific review supports a finding of continued adequate safety because: (1) the change is editorial, administrative, or provides clarification (i.e., no requirements are materially altered); (2) the change is more restrictive than the licensee's current requirement; or (3) the change is less restrictive than the licensee's current requirement, but nonetheless still affords adequate assurance of safety when judged against current regulatory standards. The detailed application of this general framework, and additional specialized guidance, are discussed in Section 3.0 in the context of specific proposed changes.

3.0 TECHNICAL EVALUATION

3.1 Specific Changes Requested

Duke has proposed the following changes to the TSs for McGuire 1 and 2:

TS 5.5.8, "Inservice Testing Program," would be revised to delete references to Section XI of the ASME Code and incorporate references to the ASME OM Code.

TS 5.5.8.b would be revised to apply SR 3.0.2 to other normal and accelerated frequencies specified as 2 years or less in the Inservice Testing Program.

Associated TS Bases Sections would be revised to replace references to the ASME Code, Section XI, with references to the ASME OM Code for consistency with the TS changes.

Duke has not proposed any variation or deviation from the TS changes described in TSTF-479, Revision 0, and TSTF-497, Revision 0.

3.2 Evaluation

In 1990, ASME published the initial edition of the ASME OM Code, which provides rules for IST of pumps and valves. The ASME OM Code replaced ASME Code, Section XI, for IST of pumps and valves. The 1995 edition of the ASME OM Code was incorporated by reference into 10 CFR 50.55a on September 22, 1999. As a consequence, the TS 5.5.8 reference to Section XI of the ASME Code for IST requirements results in a reference to a deleted portion of the ASME Code. The TS changes do not eliminate any tests and do not relinquish the licensee of its responsibility to seek relief from Code test requirements when they are impractical. The changes will eliminate the ASME Code inconsistency between the IST program and the TSs as required by 10 CFR 50.55a(f)(5)(ii).

The licensee's proposed change to TS 5.5.8.b applies SR 3.0.2 to the frequencies specified in TS 5.5.8.a and other normal and accelerated frequencies specified as 2 years or less in the IST program. This change recognizes that the IST program may direct that additional tests be performed, in accordance with the ASME OM Code that are not at the standard intervals listed in TS 5.5.8.a. This is consistent with the intent of the 25 percent extension to the surveillance frequency as described in the Bases for SR 3.0.2, in that the extension would provide operational flexibility, but would not significantly degrade the reliability that results from performing the surveillance at the specified frequency. Further, the licensee's proposal to limit application of SR 3.0.2 to frequencies specified as 2 years or less limits the maximum incremental time period between surveillances that could be added by the 25-percent extension. Without this limitation, some components, such as safety and relief valves which may be tested at surveillance intervals significantly greater than 2 years, could have extensions applied which would be much greater than needed for operational flexibility. These aspects of the proposed change support ASME Code provisions which provide the basis for the IST program and are consistent with guidance contained in NUREG-1482, Revision 1, regarding maximum allowable extensions of test intervals.

The licensee's TS revision fully adopts TSTF-479, Revision 0, and TSTF-497, Revision 0, changes to Section 5.5.8 of the McGuire 1 and 2 TSs to reflect the latest approved version of the ASME OM Code, the applicability of the provisions of SR 3.0.2, and additional wording to clarify that the test interval extension in the IST program applies only to test intervals of 2 years or less. The NRC staff also reviewed the changes against the requirements of 10 CFR 50.36 and found them to be acceptable.

Therefore, the NRC staff concludes that the licensee's proposed changes to the McGuire 1 and 2 TSs requirements do not result in any substantive change in the operating requirements, are consistent with the Commission's regulation, and conform to the requirements of 10 CFR 50.55a. On this basis, the NRC staff concludes that the proposed TS changes are 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. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments relate to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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) 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: R. Wolfgang, NRR

Date: August 17, 2009

B. Hamilton

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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. 50-369 and 50-370

Enclosures:

1. Amendment No. 252 to NPF-9
2. Amendment No. 232 to NPF-17
3. Safety Evaluation

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