March 16, 2004

Mr. G. R. Peterson
Vice President
McGuire Nuclear Station
Duke Energy Corporation
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 RE: ISSUANCE OF AMENDMENTS (TAC NOS. MB6734 AND MB6735)

Dear Mr. Peterson:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 220 to Renewed Facility Operating License NPF-9 and Amendment No. 202 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 (TS) in response to your application dated November 14, 2002, as supplemented by letters dated September 11, 2003, and March 10, 2004.

The requested changes would revise TS 3.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation."

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.

Sincerely,

/RA/

Leonard N. Olshan, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosures:
1. Amendment No. 220 to NPF-9
2. Amendment No. 202 to NPF-17
3. Safety Evaluation

cc w/encls: See next page

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MCGUIRE NUCLEAR STATION, UNITS 1AND 2 RE: ISSUANCE OF AMENDMENTS (TAC NOS. MB6734 AND MB6735)

Dated: March 16, 2004

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DUKE ENERGY CORPORATION

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 220
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 Corporation (licensee) dated November 14, 2002, as supplemented by letters dated September 11, 2003, and March 10, 2004, 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. 220, 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

/RA/

John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: March 16, 2004

DUKE ENERGY CORPORATION

DOCKET NO. 50-370

MCGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 202
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 Corporation (licensee) dated November 14, 2002, as supplemented by letters dated September 11, 2003, and March 10, 2004, 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. 202, 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

/RA/

John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Technical Specification Changes

Date of Issuance: March 16, 2004

ATTACHMENT TO LICENSE AMENDMENT NO. 220

RENEWED FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

ATTACHMENT TO LICENSE AMENDMENT NO. 202

RENEWED FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

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

Remove	Insert
3.3.2-10	3.3.2-10
3.3.2-11	3.3.2-11
3.3.2-12	3.3.2-12
3.3.2-13	3.3.2-13
3.3.2-14	3.3.2-14
B 3.3.2-18 through 43	B 3.3.2-18 through 43

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 220 TO FACILITY OPERATING LICENSE NPF-9

AND AMENDMENT NO. 202 TO RENEWED FACILITY OPERATING LICENSE NPF-17

DUKE ENERGY CORPORATION

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-369 AND 50-370

1.0 INTRODUCTION

By letter dated November 14, 2002, as supplemented by letters dated September 11, 2003, and March 10, 2004, Duke Power Company, et al. (the licensee), submitted a request for changes to the MCGUIRE Nuclear Station, Units 1 and 2, Technical Specifications (TS). The proposed changes would revise the TS 3.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation." Associated changes to the TS Bases are also included.

In the licensee's letter dated September 11, 2003, the licensee withdrew its request to delete the TS requirements for the Dog House Water Level-High High Function.

The supplements dated September 11, 2003, and March 10, 2004, provided clarifying information that did not change the scope of the November 14, 2002, application nor the initial proposed no significant hazards consideration determination.

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36 requires all operating licenses for nuclear power reactors to include TSs for the subject plant. The limiting conditions for operation (LCO) along with required completion time are required for each system included in the TS. MCGUIRE, Units 1 and 2, have implemented the Improved Technical Specifications (ITS).

The Nuclear Regulatory Commission (NRC) staff evaluated the licensee's proposed changes using 10 CFR 50.36; 10 CFR 50.55a(h), "Codes and Standards;" the MCGUIRE Updated Final Safety Analysis Report (UFSAR); NUREG 0800, "Standard Review Plan;" and NUREG 1431, "Standard Technical Specifications for Westinghouse Plants" (STS).

3.0 EVALUATION

The licensee proposed seven categories of changes to TS 3.3.2 and to TS Table 3.3.2-1, "Engineered Safety Features Actuation System Instrumentation" in its application dated November 14, 2002. All TS "Functions" in the following discussions are from TS Table 3.3.2.-1.

Changes 1 and 6

Changes 1 and 6 are related to the licensee's proposal to delete TS Table Function 5.e, "Doghouse Water Level-High High." This proposal was withdrawn by the licensee's letter dated September 11, 2003. The withdrawal of these proposed changes is acceptable to the NRC staff.

Change 2, Function 5, Turbine Trip and Feedwater Isolation

Change 2, applicable to Function 5, Turbine Trip and Feedwater Isolation, proposes dividing Function 5 into two functional categories: Function 5.a, Turbine Trip; and Function 5.b, Feedwater Isolation. The existing Function 5 contains six functions (Functions 5.a through 5.f). The licensee proposed dividing these six functions because some of these functions apply only to the Turbine Trip Function, some of the functions apply only to the Feedwater Isolation Function, and some of the functions apply to both the Turbine Trip and the Feedwater Isolation functions.

The licensee stated that, prior to converting to the STS, the MCGUIRE TS had separate listings for turbine trip and feedwater isolation. This proposed change reverts to the pre-STS format and clarifies the current TS requirements that apply to these two functions (the Turbine Trip and Feedwater Isolation functions). The licensee concluded that this proposed change will make it easier to clearly implement this part of the TS during plant operations and testing.

The existing Table 3.3.2-1, Function 5, Turbine Trip and Feedwater Isolation, lists the following five functions:

a. Automatic Actuation Logic and Actuation Relays
b. Steam Generator (SG) Water Level-High High (P-14)
c. Safety Injection
d. T_{avg}-Low coincident with Reactor Trip, P-4
e. Doghouse Water Level-High High

The licensee proposed to subdivide these functions as follows:

5.a. Turbine Trip
   1. Automatic Actuation Logic and Actuation Relays
   2. SG Water Level-High High (P-14)
   3. Safety Injection

5.b. Feedwater Isolation
   1. Automatic Actuation Logic and Actuation Relays
   2. SG Water Level-High High (P-14)

3. Safety Injection
4. T_{avg}-Low coincident with Reactor Trip, P-4
5. Doghouse Water Level-High High

The following sections describe the proposed changes and the NRC staff's safety evaluation of the changes.

Function 5.a.(1), Turbine Trip, Automatic Actuation Logic and Actuation Relays

The proposed applicable modes or other specified conditions, required channels, conditions, surveillance requirements, allowable value, and nominal trip setpoint for Function 5.a.(1) remain the same as in the existing TS. The licensee proposed deleting the reference to Footnote (e) for MODE 2 because this footnote applies only to the Feedwater Isolation functions and, therefore, is not applicable to Function 5.a.(1). This change is consistent with the revised format, and no technical changes are being made. Therefore, the NRC staff finds the proposed revised Function 5.a.(1) to be acceptable

Function 5.a.(2), Turbine Trip, SG Water Level-High High (P-14)

The proposed applicable modes or other specified conditions, required channels, conditions, surveillance requirements, allowable value, and nominal trip setpoint in Table 3.3.2-1 for Function 5.a.(2) remain the same as in the existing TS. The licensee proposed deleting the reference to Footnote (e) for MODE 2 because this footnote applies only to the Feedwater Isolation functions and, therefore, is not applicable to Function 5.a.(2). This change is consistent with the revised format, and no technical changes are being made. Therefore, the NRC staff finds the proposed revised Function 5.a.(2) to be acceptable.

Function 5.a.(3), Turbine Trip, Safety Injection

Function 5.c in the existing TS states, "Refer to Function 1 (Safety Injection) for all initiation functions and requirements." The corresponding applicable MODES for the existing Function 5.c are, by reference to Function 1, MODES 1, 2, 3, and 4. The licensee proposed modifying the corresponding Function 5.a.(3) reference to Function 1 (Safety Injection) to state, "Refer to Function 1 (Safety Injection) for all initiation functions and requirements. See Item 5.a.(1) for Applicable Modes." The applicable MODES for the proposed Function 5.a.(3) are MODE 1 and, except when steam admission to the Main Turbine is not prevented, MODE 2. Since the main turbine is tripped in MODES 3 and 4 and, therefore, satisfies the requirement for a turbine trip, the NRC staff finds the proposed applicable MODES 1 and 2 for the Turbine Trip, Safety Injection function to be acceptable. Also, the NRC staff finds this proposed renumbering of the Turbine Trip, Safety Injection function to be acceptable.

Change 3, Proposed Function 5.b.(1), Feedwater Isolation, Automatic Actuation Logic and Actuation Relays

Change 3 proposes expanding the Applicable Modes by adding Mode 3, modified by the current Footnote (e). Change 3 also proposes to change the applicable Condition for Function 5.b.(1) from Condition I to Condition H. The Required Action for an inoperable train specified in Condition I has an end state of MODE 3, and the corresponding Condition H has an end state of MODE 4. Since a MODE 3 operability requirement is being added to Function 5.b.(1), the

NRC staff concludes that the correct end state for Function 5.b.(1) should be MODE 4 and, therefore, finds this change to be acceptable.

Change 4, Proposed Function 5.b.(2), Feedwater Isolation, SG Water Level-High High (P-14)

Change 4 proposes a change similar to that proposed to Function 5.b.(1) for Function 5.b.(2), Feedwater Isolation, SG Water Level-High High (P-14). Interlock P-14 provides feedwater isolation when the level in a SG exceeds the High-High SG level setpoint. The McGuire TS had separate TS requirements for turbine trip and feedwater isolation, and the P-14 interlock. Turbine trip and feedwater isolation on High-High SG level were required to be operable in MODES 1 and 2. The P-14 interlock, however, was required to be operable in MODES 1, 2, and 3.

The STS provides the option of using the MODE 3 footnote (e) requirement in regard to P-14 if the licensee's TS contained the requirement. During the licensee's conversion of the McGuire TS to the ITS format, the P-14 entry for the ESFAS Interlock Function was inadvertently deleted with the justification that it was captured under the Turbine Trip and Feedwater Isolation functions. Consequently, the associated MODE 3 requirement was inadvertently omitted. The licensee subsequently determined there should be a MODE 3 operability requirement in the TS for the P-14 function, since the feedwater system could be placed in service with full automatic control in MODE 3 that could lead to a potential for a SG overfill to occur in MODE 3. Since the automatic actuation logic and actuation relays addressed by Function 5.b.(1) are required to be operable for P-14, the same change is also proposed for Function 5.b.(2). This proposed change, therefore, applies to Functions 5.b.(1) and 5.b.(2). The NRC staff finds the licensee's reasons for proposing that the P-14 interlock be operable in the MODE 3 to be appropriate and finds this change to be acceptable.

Change 4 also proposes to change the applicable Condition for Function 5.b.(2) from Condition J to Condition D. The Required Action for an inoperable channel specified in Condition J has an end state of MODE 3, and the corresponding Condition D has an end state of MODE 4. Since a MODE 3 operability requirement is being added to this function, the NRC staff concludes that the correct end state for Function 5.b.(2) should be MODE 4 and, therefore, finds this change acceptable.

Change 5, Functions 5.a.(3) and 5.b.(3), Safety Injection

The current TS Function 5.c, Safety Injection, states, "Refer to Function 1 (Safety Injection) for all initiation functions and requirements." Therefore, the applicable modes for the current Function 5.c are, by reference to Function 1, MODES 1, 2, 3 and 4. The current Function 5.c becomes Functions 5.a.(3) and 5.b.(3) in the proposed TS. The applicable modes for the proposed Functions 5.a.(3) and 5.b.(3) are MODES 1 and 2, and MODE 3 for Function 5.b.(3) when the main feedwater system is not isolated in accordance with Footnote (e).

For the proposed new Function 5.a.(3), Turbine Trip, Safety Injection, the licensee proposed adding the statement, "See Item 5.a.(1) for Applicable Modes." The applicable modes for the proposed Function 5.a.(3) would, therefore, be MODES 1 and 2. Since the main turbine is tripped in MODES 3 and 4 and, therefore, satisfies the requirement for a turbine trip, the NRC staff finds that changing the applicable modes for this function to MODES 1 and 2 to be acceptable.

The proposed required channels, conditions, surveillance requirements, allowable value, and nominal trip setpoint remain the same as in the existing TS. The NRC staff, therefore, finds this proposed renumbering of the Turbine Trip, Safety Injection function to be acceptable.

For the proposed new Function 5.b.(3), Feedwater Isolation, Safety Injection, the licensee proposed adding the statement, "See Item 5.b.(1) for Applicable Modes." The applicable modes for the proposed Function 5.b.(3) would, therefore, be MODE 1, and MODES 2 and 3, as modified by Footnote (e). Since the main feedwater control valves are not placed into automatic operation until at least MODE 3, the NRC staff finds that changing the applicable MODES for this function to MODE 1, and MODES 2 and 3, as modified by Footnote (e), is acceptable.

Change 6

Withdrawn, as discussed in Change 1 above.

Change 7, Function 6.e, Auxiliary Feedwater, Trip of all Main Feedwater Pumps, Footnote (a)

For Function 6.e, the licensee proposed deletion of footnote (a) to the MODE 2 condition that states:

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

The licensee states that since the plant cannot be operated below the P-11 interlock in MODE 2, the footnote has no meaning for Function 6.e. Therefore, if the plant is in MODE 2 it will be above the P-11 interlock, the NRC staff finds that the Footnote has no meaning and that its deletion is acceptable.

4.0 SUMMARY

The NRC staff has reviewed the licensee's application with the supporting documentation. Based on its review, the NRC staff concludes that the proposed TS changes are acceptable.

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 requirements with respect to installation or use of a facility component 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 (68 FR 49815). 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 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 Contributors: M. Waterman
R. Martin

Date: March 16, 2004

McGuire Nuclear Station

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