



**Duke Power**  
McGuire Nuclear Station  
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**D.M. Jamil**  
Vice President, McGuire

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December 2, 2002

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Subject: Duke Energy Corporation  
McGuire Nuclear Station, Units 1 and 2  
Docket Numbers 50-369 and 50-370  
Proposed Technical Specifications Amendment  
Administrative Controls 5.1.2, 5.2.2, 5.3.1, and  
5.7.2  
Responsibility, Unit Staff, Unit Staff  
Qualifications, and High Radiation Area

Pursuant to 10CFR50.90, this letter submits a license amendment request (LAR) for the McGuire Nuclear Station Facility Operating Licenses and Technical Specifications (TS). This amendment applies to Administrative Controls 5.1.2, 5.2.2, 5.3.1, and 5.7.2 concerning Responsibility, Unit Staff, Unit Staff Qualifications, and controls of the High Radiation Area. The changes proposed by Duke Energy Corporation (Duke) in this amendment request will: 1) revise TS 5.1.2, 5.2.2, and 5.7.2 by accomplishing several administrative changes in order to reflect present McGuire operations shift responsibilities, and 2) modify TS 5.3.1 by deleting reference to the March 28, 1980 NRC letter to all licensees regarding the minimum qualifications of licensed Operators and Senior Reactor Operators. 10CFR55, "Operator's Licenses," specifies the minimum requirements for licensed Operators and Senior Reactor Operators.

The contents of this amendment package are as follows:

ADD 1

Attachment 1 provides marked copies of the affected TS pages for McGuire showing the proposed changes.

Attachment 2 contains reprinted pages of the affected TS pages for McGuire.

Attachment 3 provides a description of the proposed changes and technical justification.

Pursuant to 10CFR50.92, Attachment 4 contains the results of the No Significant Hazards determination.

Pursuant to 10CFR51.22(c)(9), Attachment 5 provides the basis for the categorical exclusion from the performance of an Environmental Assessment/Impact Review.

The proposed amendment to TS 5.3.1 is similar to that submitted by the Catawba Nuclear Station on August 4, 1999, and approved by the NRC in the Safety Evaluation Report (SER) dated November 2, 1999.

Implementation of this amendment will not impact the McGuire Updated Final Safety Analysis Report (UFSAR).

Duke is requesting NRC approval of this License Amendment Request at its earliest convenience so that the identified Technical Specifications may be corrected.

In accordance with Duke administrative procedures and Quality Assurance Program Topical Report requirements, this proposed amendment has previously been reviewed and approved by the McGuire Plant Operations Review Committee and the Duke Corporate Nuclear Safety Review Board.

Pursuant to 10CFR50.91, a copy of this proposed amendment is being sent to the appropriate state official.

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Inquiries on this matter should be directed to J. A.  
Effinger at (704) 382-8688.

Very truly yours,

A handwritten signature in black ink, appearing to read 'D. M. Jamil', with a large, stylized flourish at the end.

D. M. Jamil

December 2, 2002

D. M. Jamil, being duly sworn, affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.



\_\_\_\_\_  
D. M. Jamil, Vice President

Subscribed and sworn to me: December 2, 2002  
Date

Deborah S. Rome, Notary Public  
Deborah S. Rome

My commission expires: December 19, 2004

SEAL

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xc (w/attachments):

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C. J. Thomas  
M. T. Cash  
K. L. Crane  
R. L. Gill  
McGuire Master File (MG01DM)  
ELL

ATTACHMENT 1

McGUIRE UNITS 1 AND 2 TECHNICAL SPECIFICATIONS

MARKED COPY

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

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5.1.1 The Station Manager shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.

*CONTROL ROOM SENIOR REACTOR OPERATOR (CRSRO)* *CRSRO*

5.1.2 The ~~Shift Supervisor (SS)~~ shall be responsible for the control room command function. During any absence of the ~~SS~~ from the control room while the unit is in MODE 1, 2, 3, or 4, an individual (other than the ~~Shift Work Manager~~) with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the ~~SS~~ from the control room while the unit is in MODE 5 or 6, an individual with an active SRO or Reactor Operator license shall be designated to assume the control room command function.

*SHIFT TECHNICAL ADVISOR (STA)*

*CRSRO*

*CRSRO* *RELIEF*

On occasion when there is a need for both the ~~Shift Supervisor~~ and the SRO to be absent from the control room in MODE 1, 2, 3, or 4, the ~~Shift Work Manager~~ shall be allowed to assume the control room command function and serve as the SRO in the control room provided that:

*STA*

*CRSRO OR THE RELIEF SRO*

- a. the ~~Shift Supervisor~~ is available to return to the control room within 10 minutes,
- b. the assumption of SRO duties by the ~~Shift Work Manager~~ is limited to periods not in excess of 15 minutes duration and a total time not to exceed 1 hour during any shift, and
- c. the ~~Shift Work Manager~~ has a SRO license on the unit.

*STA*

*STA*

5.2 Organization

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5.2.2 Unit Staff (continued)

2. An individual should not be permitted to work more than 16 hours in any 24 hour period, nor more than 28 hours in any 48 hour period, nor more than 72 hours in any 7 day period, all excluding shift turnover time;
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time;
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized in advance by the Station Manager or his designee, in accordance with approved administrative procedures, or by higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation.

Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Station Manager or his designee to ensure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

- f. The Operations Manager shall hold or have held an SRO license.
- g. The ~~Shift Work Manager, whose functions include those of a~~ Shift Technical Advisor (STA) ~~shall provide advisory technical support to the~~ ~~Shift Supervisor~~ in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the Shift Work Manager shall meet the qualifications for STA specified by the Commission Policy Statement on Engineering Expertise on Shift.~~

CONTROL ROOM SENIOR REACTOR OPERATOR (CRSRO)



## 5.0 ADMINISTRATIVE CONTROLS

### 5.3 Unit Staff Qualifications

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- 5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI-N18.1-1971 for comparable positions, except the Radiation Protection Manager, who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. ~~The licensed Operators and Senior Reactor Operators shall also meet or exceed the minimum qualifications of the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees.~~
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5.0 ADMINISTRATIVE CONTROLS

5.7 High Radiation Area

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5.7.1 Pursuant to 10 CFR 20, paragraph 20.1601(c), in lieu of the requirements of 10 CFR 20.1601, each high radiation area, as defined in 10 CFR 20, in which the intensity of radiation is  $> 100$  mrem/hr but  $\leq 1000$  mrem/hr at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates, shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., Radiation Protection Technicians) or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates  $\leq 1000$  mrem/hr, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas.

Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device that continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel are aware of them.
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Protection Manager in the RWP.

5.7.2

OPERATIONS  
SHIFT  
MANAGER

In addition to the requirements of Specification 5.7.1, areas with radiation levels  $> 1000$  mrem/hr at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates shall be provided with locked or continuously guarded doors to prevent unauthorized entry and the keys shall be maintained under the administrative control of the ~~Shift Supervisor~~ <sup>Shift Supervisor</sup> on duty or radiation protection personnel. Doors shall remain locked except during periods of access by personnel under an approved RWP that shall specify the dose rate levels in the immediate work areas and the maximum allowable stay times for individuals in those areas. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

(continued)

ATTACHMENT 2

McGUIRE UNITS 1 AND 2 TECHNICAL SPECIFICATIONS

REPRINTED VERSION

Remove Page

5.1-1

5.2-3

5.3-1

5.7-1

Insert Page

5.1-1

5.2-3

5.3-1

5.7-1

## 5.0 ADMINISTRATIVE CONTROLS

### 5.1 Responsibility

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- 5.1.1 The Station Manager shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.
- 5.1.2 The Control Room Senior Reactor Operator (CRSRO) shall be responsible for the control room command function. During any absence of the CRSRO from the control room while the unit is in MODE 1, 2, 3, or 4, an individual (other than the Shift Technical Advisor (STA) with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the CRSRO from the control room while the unit is in MODE 5 or 6, an individual with an active SRO license or Reactor Operator license shall be designated to assume the control room command function.
- On occasion when there is a need for both the CRSRO and the relief SRO to be absent from the control room in MODE 1, 2, 3, or 4, the STA shall be allowed to assume the control room command function and serve as the SRO in the control room provided that:
- a. the CRSRO or the relief SRO is available to return to the control room within 10 minutes,
  - b. the assumption of SRO duties by the STA is limited to periods not in excess of 15 minutes duration and a total time not to exceed 1 hour during any shift, and
  - c. the STA has a SRO license on the unit.
-

5.2 Organization

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5.2.2 Unit Staff (continued)

2. An individual should not be permitted to work more than 16 hours in any 24 hour period, nor more than 28 hours in any 48 hour period, nor more than 72 hours in any 7 day period, all excluding shift turnover time;
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time;
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized in advance by the Station Manager or his designee, in accordance with approved administrative procedures, or by higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation.

Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Station Manager or his designee to ensure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

- f. The Operations Manager shall hold or have held an SRO license.
- g. The Shift Technical Advisor (STA) shall provide advisory technical support to the Control Room Senior Reactor Operator (CRSRO) in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit.

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(continued)

## 5.0 ADMINISTRATIVE CONTROLS

### 5.3 Unit Staff Qualifications

---

- 5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI-N18.1-1971 for comparable positions, except the Radiation Protection Manager, who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

## 5.0 ADMINISTRATIVE CONTROLS

### 5.7 High Radiation Area

---

5.7.1 Pursuant to 10 CFR 20, paragraph 20.1601(c), in lieu of the requirements of 10 CFR 20.1601, each high radiation area, as defined in 10 CFR 20, in which the intensity of radiation is  $> 100$  mrem/hr but  $\leq 1000$  mrem/hr at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates, shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures (e.g., Radiation Protection Technicians) or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates  $\leq 1000$  mrem/hr, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas.

Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device that continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel are aware of them.
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Protection Manager in the RWP.

5.7.2 In addition to the requirements of Specification 5.7.1, areas with radiation levels  $> 1000$  mrem/hr at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates shall be provided with locked or continuously guarded doors to prevent unauthorized entry and the keys shall be maintained under the administrative control of the Operations Shift Manager on duty or radiation protection personnel. Doors shall remain locked except during periods of access by personnel under an approved RWP that shall specify the dose rate levels in the immediate work areas and the maximum allowable stay times for individuals in those areas. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

(continued)

ATTACHMENT 3

DESCRIPTION OF PROPOSED CHANGES AND TECHNICAL JUSTIFICATION

## DESCRIPTION OF PROPOSED CHANGES AND TECHNICAL JUSTIFICATION

### Proposed Change 1

Currently, Sections 5.1, "Responsibility," and 5.2, "Unit Staff," of the Administrative Controls section of the McGuire Technical Specifications (TS) refer to a *Shift Supervisor (SS)* position in paragraphs 5.1.2 and 5.2.2. McGuire proposes to replace references to this position with the "Control Room Senior Reactor Operator (CRSRO)."

Additionally, paragraphs 5.1.2 and 5.2.2 of the Administrative Controls section of the McGuire TS refer to a *Shift Work Manager* position. McGuire proposes to replace references to this position with the "Shift Technical Advisor (STA)." The phrase "*In addition, the Shift Work Manager shall meet the qualifications for STA specified by the Commission Policy Statement on Engineering Expertise on Shift*" appearing in paragraph 5.2.2 (g) of the McGuire TS is deleted as unnecessary.

Paragraph 5.1.2 of the TS currently states that the Shift Work Manager shall be allowed to assume the control room command function and serve as the SRO in the control room on occasion when there is a need for both the Shift Supervisor and the SRO to be absent from the control room in MODE 1, 2, 3, or 4 provided, among other things, that the Shift Supervisor is available to return to the control room within 10 minutes. McGuire proposes to modify this paragraph by inserting the term "relief" immediately prior to the phrase *SRO* so as to make it clear that this person is temporarily relieving the Control Room SRO. McGuire also proposes to replace the *Shift Supervisor* position in paragraph 5.1.2(a) with the phrase "CRSRO or the relief SRO."

Section 5.7, "High Radiation Area," of the McGuire TS currently refers to a Shift Supervisor position in paragraph 5.7.2. McGuire proposes to replace the reference to this position with the "Operations Shift Supervisor (OSM)."

The above listed changes are proposed so as to reflect current McGuire operations shift nomenclature and responsibilities.

Justification for the proposed changes is as follows:

The proposed changes are in alignment with the requirements of NUREG-1431, Revision 1, "Standard Technical Specifications, Westinghouse Plants."

The proposed changes do not adversely affect the minimum staffing levels required by the Technical Specifications. McGuire will continue to meet the requirements of Technical Specification 5.2.2, "Unit Staff."

The proposed changes continue to ensure that no individual is assigned functions which will result in conflicting roles during design basis, fire, security, or other events.

#### Proposed Change 2

TS Administrative Controls, Section 5.3.1 "Unit Staff Qualifications" states, in part:

"The licensed Operators and Senior Reactor Operators shall also meet or exceed the minimum qualifications of the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees."

McGuire proposes to amend this requirement by deleting the above stated paragraph.

Justification for the proposed change is as follows:

By letter dated January 18, 2001, the NRC issued Regulatory Issue Summary (RIS) 2001-01, "Eligibility of Operator License Applicants." The NRC issued this RIS to familiarize addressees with the NRC's current guidelines for the qualification and training reactor operator (RO) and senior reactor operator (SRO) license applicants. As part of the RIS, the NRC staff encouraged all facility licensees to review their requirements and commitments related to RO and SRO education and experience and to update their documentation (e.g., UFSAR, TS, and training program descriptions) to enhance consistency and minimize confusion.

TS 5.3.1, which governs unit staff qualifications, is proposed to be modified to delete those references to additional requirements pertaining to licensed Operators and Senior Reactor Operators. These additional

requirements were included in the TS based on a March 28, 1980<sup>1</sup> NRC letter to all licensees. NUREG-1431, Revision 1, "Standard Technical Specification, Westinghouse Plants," formed the basis for the McGuire TS. NUREG-1431 recommends specifying minimum qualifications for members of the unit staff by use of an overall qualification statement. NUREG-1431 does not include reference to any supplemental qualification requirements for licensed Operators and Senior Reactor Operators.

Deletion of the reference to the stated requirements for licensed Operators and Senior Reactor Operators is acceptable because 10 CFR 55 specifies requirements pertaining to operator licenses. McGuire's operator licensing program meets all requirements of 10 CFR 55; therefore, it is not necessary to include additional requirements in the TS. This philosophy is identical to that employed in other sections of the Improved TS where requirements specified in regulations do not need to be duplicated in the TS. In addition, the NRC has previously reviewed and accepted McGuire's operator licensing program.

A similar change was approved for Duke Energy Corporation's Catawba Nuclear Station by letter dated November 2, 1999.<sup>2</sup>

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<sup>1</sup> March 28, 1980, Harold R. Denton to All Power Reactor Applicants and Licensees, Qualifications of Reactor Operators.

<sup>2</sup> November 2, 1999, Peter S. Tam to Mr. G. R. Peterson, Catawba Nuclear Station, Units 1 and 2, RE: Issuance of Amendments (TAC NOS. MA6257, MA6258, MA6265 and MA6266).

ATTACHMENT 4

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

## NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

As required by 10CFR50.91(a)(1), this analysis is provided to demonstrate that the proposed license amendment does not involve a significant hazard.

Conformance of the proposed amendment to the standards for a determination of no significant hazards, as defined in 10CFR50.92, is shown in the following:

- 1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

No. Implementation of this amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated. Approval of this amendment will have no effect on accident probabilities or consequences since the changes are purely administrative in nature.

- 2) Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. Implementation of this amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. No new accident causal mechanisms are created as a result of NRC approval of this amendment request. No physical changes are being made to the plant. Therefore, the introduction of any new accident scenarios does not exist. The amendment requires does not impact any plant systems that are accident initiators nor does it adversely impact any accident mitigating system. This amendment is purely administrative in nature.

- 3) Does the proposed change involve a significant reduction in margin of safety?

No. Implementation of this amendment will not involve a significant reduction in a margin of safety. Margin of safety is related to the confidence in the ability of the fission product barriers to perform their design functions during and following an accident situation. These barriers include the fuel cladding, the reactor coolant system, and the containment system. The performance of these fission product

barriers will not be impacted by implementation of this amendment. System and components are not affected and therefore are capable of performing as designed. This amendment is purely administrative nature, it will have no effect on any safety margins.

### Conclusion

Based on the preceding analysis, it is concluded that the proposed license amendment does not involve a Significant Hazards Consideration Finding as defined in 10CFR50.92.

ATTACHMENT 5

ENVIRONMENTAL ANALYSIS

## ENVIRONMENTAL ANALYSIS

The proposed amendment has been reviewed against the criteria of 10CFR51.22 for environmental considerations. The proposed amendment does not involve a significant hazards consideration, increase the types and amounts of effluents that may be released offsite, or result in the increase of individual or cumulative occupational radiation exposures. Therefore, the proposed amendment meets the criteria provided by 10CFR51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.