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April 14, 2003

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, Sections 5.1.2, 5.2.2,
5.3.1, and 5.7.2
Responsibility, Unit Staff, Unit Staff
Qualifications, and High Radiation Area

On December 2, 2002 Duke Energy Corporation (Duke) submitted a license amendment request (LAR) for the McGuire Nuclear Station Facility Operating Licenses and Technical Specifications (TS). This LAR proposed changes to the Administrative Controls portion of the McGuire TS, Sections 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.

On March 21, 2003, Duke received a Request for Additional Information (RAI) from the NRC Staff regarding the December 2, 2002 McGuire LAR.

This letter contains Duke's response to the March 21, 2003 RAI and provides revisions to the December 2, 2002 LAR resulting from the response to that RAI.

The contents of this submittal are as follows:

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U.S. Nuclear Regulatory Commission
Page 2
April 14, 2003

Attachment 1 provides Duke's response to the March 21, 2003 NRC RAI. Each NRC question is stated and the Duke response follows.

Attachment 2 contains a revised marked copy of the affected McGuire TS page showing the proposed change which resulted from Duke's response to the Staff's RAI. This is a complete replacement of that same page contained in Duke's original December 2, 2002 submittal. The other marked pages contained in the December 2, 2002 LAR remain valid for this submittal.

Attachment 3 contains a reprinted copy of the affected McGuire TS page.

The No Significant Hazards Consideration determination contained in Duke's December 2, 2002 remains valid for this submittal. Additionally, the original basis for excluding this LAR from the requirements to perform an environmental assessment/impact statement remains unchanged.

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.

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

Very truly yours,



D. M. Jamil

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.

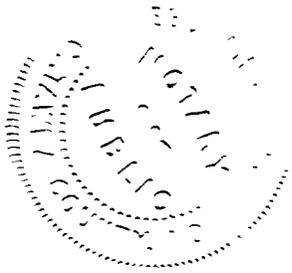


D. M. Jamil, Vice President

Subscribed and sworn to me: April 14, 2003
Date

Deborah S. Rome, Notary Public
Deborah S. Rome

My commission expires: December 19, 2004



SEAL

U.S. Nuclear Regulatory Commission
Page 4
April 14, 2003

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U.S. Nuclear Regulatory Commission
Page 5
April 14, 2003

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McGuire Master File (MG01DM)
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ATTACHMENT 1

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION⁵

REQUEST FOR ADDITIONAL INFORMATION

ON ADMINISTRATIVE CONTROLS

DUKE POWER COMPANY

WILLIAM B. MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS 50-369 AND 50-370

1. The Technical Justification for Proposed Change 1, indicates that the reference to the Shift Supervisor in paragraph 5.7.2 is being changed to "Operations Shift Supervisor (OSM)" [sic]. However, the marked up Technical Specification (TS) indicate the title of the position is "Operations Shift Manager." Verify the correct title of the position being referenced in TS 5.7.2. In other paragraphs of the TS, the title of Shift Supervisor is being changed to the "Control Room Senior Reactor Operator (CRSRO)." Is the OSM the same as the CRSRO?

Response: The correct title is "Operations Shift Manager (OSM)," as is stated in the marked-up Technical Specifications. The OSM is responsible for the operation of the station on his/her shift and is required to hold an active Senior Reactor Operator's license. The Control Room Senior Reactor Operator (CRSRO) assists the OSM in the operation of the station on his or her assigned shift.

2. The Technical Justification for Proposed Change 1 also indicates that the basis for the change to TS 5.7.2 is to bring the TS "in alignment with the requirements of NUREG-1431..." However, the current Westinghouse Standard TS (Paragraph 5.7.2 to NUREG-1431, Rev. 2, dated 04/30/01) states that the keys to locked High Radiation Areas "be maintained under the administrative control of the shift supervisor, radiation protection manager, or his or her designee." Describe how the requirements in the proposed TS 5.7.2 (e.g., "the keys shall be maintained under the administrative control of the Operations Shift Manager or radiation protection personnel.") are consistent with the Standard TS.

Response: The intent of the proposed change to Technical Specification 5.7.2 was only to revise the title of "Shift Supervisor" to "Operations Shift

Manager." However, upon further consideration, Duke has elected to amend its December 2, 2002 license amendment request by revising Section 5.7.2, "High Radiation Area," of the McGuire Technical Specifications to more fully reflect the wording contained in NUREG-1431, Rev 2, by stating that the subject keys will be maintained under the administrative control of the Operations Shift Manager, Radiation Protection Manager, or his or her designee. Accordingly, Attachment 2 to this letter provides a revised marked copy of the affected Technical Specification (TS) page for McGuire showing the proposed change. Attachment 3 contains the reprinted copy of the affected TS page.

3. Verify that those responsible (per TS 5.7.2) for controlling the keys to locked High Radiation Areas have the scope of job responsibilities to understand the radiologic implications of changing plant configurations, and the authority to stop those plant evolutions that could result in unwarranted radiation exposure to plant personnel.

Response: The response to this question is contained in Duke's response to questions 1 and 2, above.

4. Using the licensed operator titles proposed in the amendment, provide a description of the combined control room shift organization for all licensed positions.

Response: The Operations Shift Manager (OSM) is responsible for the operation of the station on his/her shift. During accident or emergency conditions, the OSM is responsible for maintaining "oversight" of control room activities. The OSM acts in the position of the Station Manager in matters concerning the safe and efficient operation of the station outside of the normal working hours of the station staff. The OSM has both the authority and the obligation to order shut down of a unit, manual reactor trip, or safety injection if, in his or her opinion, conditions warrant this action.

The Control Room Senior Reactor Operator (CRSRO) assists the OSM in the operation of the station on his or her assigned shift. The CRSRO's primary duty is to maintain oversight and command and control of control room activities. The CRSRO directs the activities of

Nuclear Control Operators (NCOs) during normal and transient conditions. The CRSRO has both the authority and the obligation to order shut down of a unit, manual reactor trip, or safety injection if, in his or her opinion, conditions warrant this action.

NCOs are responsible for the manipulation of controls which directly or indirectly affect core reactivity under the direction of the CRSRO.

During emergency and abnormal conditions, the Shift Technical Advisor (STA) monitors critical safety functions and advises the OSM if those safety functions are in jeopardy. The STA assesses the severity of critical safety function challenges and recommends appropriate procedural actions to the OSM. The STA maintains an "independent view" of abnormal or emergency situations, supporting the CRSRO and the OSM in diagnosing and mitigating plant abnormal conditions to ensure a safe overall plant status.

5. The Commission's regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55 describe requirements for obtaining and maintaining operator licenses. In the area of qualifications and eligibility requirements to be licensed by the NRC, 10 CFR Part 55 requires individuals to meet the qualification and eligibility requirements established for the facility. Where are the qualification and eligibility requirements for NRC license applicants at McGuire and what are they?

Response: The McGuire operator licensing program described in Employee Training and Qualification System (ETQS) Standard 3115.3, "License Preparatory Programs," and Nuclear System Directive (NSD) 510, "NRC License Preparatory RO/SRO Program Class Selection," is based on a systematic approach to training and is accredited by the National Academy for Nuclear Training (NANT). The McGuire simulation facility meets the NRC requirements for operating examinations and control manipulations contained in 10CFR55.46(c) and (d), and/or the requirements specified in NUREG-1021.

The following comprises current McGuire RO and SRO qualification and training requirements:

Reactor Operator Experience Requirement - At the beginning of licensing class, candidates must have:

- A. A minimum of three (3) years of power plant experience, at least one of which is spent at McGuire, and
- B. At least six (6) months performing plant operational duties as a nonlicensed operator at McGuire.

Reactor Operator Training Requirements

- A. Satisfactory completion of the NRC Generic Fundamentals Examination Section (GFES) (10CFR55.41, 55.43 and NUREG-1021, ES 205)
- B. Complete at least thirteen weeks (520 hrs.) on shift as an extra person in the Control Room. [NUREG-1021 ES 202 D.1.b (1)]
- C. Complete five (5) control manipulations (10CFR55.31(a)(5) and [NUREG-1021, ES 202 D.1.b(3)]
- D. Complete site-specific training
- E. Successful completion of an NRC-approved training program [10CFR55.31.a.4 and NUREG-1021 ES 202 D.1.b(2)]
- F. Complete simulator training during which the trainee will respond to normal, abnormal, and emergency conditions.

Upgrade Senior Reactor Operator Experience Requirement
- At the beginning of licensing class, candidates:

- A. Must have a minimum of four (4) years of power plant experience, at least two of which should be nuclear power plant experience. During these two years of nuclear power plant experience, the candidate should participate in reactor operator activities at power levels greater than 20 percent for at least six weeks. At least six (6) months of the candidate's nuclear power plant experience should be at McGuire, and
- B. Should have actively performed licensed RO duties for at least one year at McGuire.

Senior Reactor Operator Training Requirements

- A. Complete at least thirteen weeks (520 hours) on shift as an extra person in training for SRO, performing the duties of an SRO under the direction of a licensed SRO. [NUREG 1021 ES 202 D.2.b(1)] Any portion of the thirteen weeks that is spent at or above 20% power may be used to satisfy the experience guideline in ES 202 D.2.a(3)
- B. Complete site-specific training
- C. Successful completion of a SAT based, INPO accredited training program [10CFR55.31.a.4 and NUREG 1021 ES 202 D.2.b(3)]
- D. Complete simulator training during which the trainee will respond to normal, abnormal, and emergency conditions.

"Instant" Senior Reactor Operator Experience

Requirement - At the beginning of licensing class, candidates:

- A. Degree verified to meet criteria of Engineer or Applied Science, if degreed [NUREG 1021 ES 202 D.2.a(2)]
- B. Must have a minimum of four (4) years of power plant experience, at least two of which should be nuclear power plant experience. During these two years of nuclear power plant experience, the candidate should participate in reactor operator activities at power levels greater than 20 percent for at least six weeks. At least six (6) months of the candidate's nuclear power plant experience should be at McGuire, and
- C. Have a four-year degree in engineering or the equivalent, or
- D. Have at least one year as an actively licensed RO at a comparable facility, or
- E. Have at least 18 months as an RO at a noncomparable commercial power reactor, or
- F. Have at least two (2) years in a position equivalent to a licensed RO at a military reactor.

"Instant" Senior Reactor Operator Training Requirements

- A. Satisfactory completion of the NRC Generic Fundamentals Exam Section (GFES) (10CFR55.41, 10CFR55.43, and NUREG 1021-ES 205)
- B. Completed at least thirteen (13) weeks (520 hours) on shift as an extra person in training for SRO, performing the duties of an SRO under the direction of a licensed SRO. [NUREG 1021 ES 202 D.2.b(1)] Any portion of the thirteen weeks that is spent at or above 20% power may be used to satisfy the experience guideline in ES 202 D.2.a(3)
- C. Completed five (5) control manipulations [as described in 10CFR55.31(a)(5) (NUREG 1021 ES 202 D.1.b(3) and D.2.b(2))]
- D. Successful completion of a SAT based, INPO accredited training program [10CFR55.31.a.4 and NUREG 1021 ES 202 D.2.b(3)]
- E. Completed simulator training during which the trainee will respond to normal, abnormal, and emergency conditions.

ATTACHMENT 2

McGUIRE UNITS 1 AND 2 TECHNICAL SPECIFICATIONS

MARKED COPY

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 ≤ 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 ≤ 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,
RADIATION
PROTECTION
MANAGER, OR
HIS OR HER
DESIGNEE.

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 or duty of radiation protection personnel~~ ^{Shift Supervisor, or duty of 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.

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ATTACHMENT 3

McGUIRE UNITS 1 AND 2 TECHNICAL SPECIFICATIONS

REPRINTED VERSION

Remove Page

5.1-1
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5.7-1

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5.1-1 previously submitted
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5.3-1 previously submitted
5.7-1

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- 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, Radiation Protection Manager, or his or her designee. 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.

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