

July 30, 2001

Mr. H. B. Barron
Vice President, McGuire Site
Duke Energy Corporation
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - APPLICATION FOR
ADMINISTRATIVE AMENDMENTS TO FACILITY OPERATING LICENSES -
MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. MA9297 AND
MA9298)

Dear Mr. Barron:

The Nuclear Regulatory Commission is reviewing your application dated June 13, 2000, regarding the updating of the Facility Operating Licenses and has identified a need for additional information as identified in the enclosure. This request for additional information was discussed with Kay Crane of your staff on July 23, 2001. Please provide a response to this request within thirty (30) days of receipt of this letter so that we may expeditiously complete our review.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager, Section
Project Directorate
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosure: Request for Additional Information

cc w/encls: See next page

Mr. H. B. Barron
Vice President, McGuire Site
Duke Energy Corporation
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

July 30, 2001

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - APPLICATION FOR
ADMINISTRATIVE AMENDMENTS TO FACILITY OPERATING LICENSES -
MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. MA9297 AND
MA9298)

Dear Mr. Barron:

The Nuclear Regulatory Commission is reviewing your application dated June 13, 2000, regarding the updating of the Facility Operating Licenses and has identified a need for additional information as identified in the enclosure. This request for additional information was discussed with Kay Crane of your staff on July 23, 2001. Please provide a response to this request within thirty (30) days of receipt of this letter so that we may expeditiously complete our review.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager, Section
Project Directorate
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosure: Request for Additional Information

cc w/encls: See next page

DISTRIBUTION:

PUBLIC		RidsRegion2MailCenter	
PDII-1 Reading		ACRS or ACNW	RidsAcrsAcnwMailCenter
S. Black	RidsNrrDlpm	R. Martin	RidsNrrPMRMartin
R. Emch	RidsNrrDlpmLpdII-1	L. Berry	e-mail address
C. Hawes	RidsNrrLACHawes	OGC	RidsOgcRp

ACCESSION NO. ML011990578

OFFICE	PDII-1/PM	PDII-1/LA	PDII-1/SC
NAME	RMartin	REmch for CHawes	REmch
DATE	07 / 26 /01	07 / 30 /01	07 / 30 /01

OFFICIAL RECORD COPY

Request for Additional Information
Concerning Updating of the Facility Operating Licenses
McGuire Nuclear Power Plant

License Conditions 2.C(11)(h) and 2.C(10)(e), Hydrogen Control Measures for Units 1 and 2

The McGuire Facility Operating Licenses (FOL) each contain a License Condition (LC) on hydrogen control measures. The acceptability of the hydrogen mitigation system for the issuance of the FOL for McGuire Unit 2 is discussed in Supplement Number 7 (SSER-7) to the Safety Evaluation Report (NUREG-0422), issued in May 1983. SSER-7 evaluated a 66 igniter design. Section C.2.3, Igniter Coverage, discusses the need for two additional igniters in lower elevations of the lower compartment and four additional igniters in the lower portion of the upper compartment for a total of 72 igniters, and these requirements were included in LC 2.C.10(e)(1)(a). The staff's conclusions in SSER-7 were as follows:

Accordingly, subject to meeting the conditions discussed herein dealing with igniter number, locations, system status indication and subject to completing installation, the staff finds the McGuire Units 1 and 2 license conditions dealing with hydrogen control during postulated degraded core accidents to be satisfactorily resolved.

SSER-7 discussed the background and bases for the inclusion of the elements of the McGuire Unit 2 LC on hydrogen control measures. Following a discussion of these issues, the staff indicated in section C.9 of McGuire's SSER-7 that it had identified a number of technical concerns that it would continue to investigate as confirmatory items. These issues were discussed in Supplements 5 and 6 of the Safety Evaluation Report (NUREG-0954) for the Catawba Nuclear Station. By letter dated May 26, 1993, "Closure of the Hydrogen Control Issue Pursuant to 10 CFR 50.44 for Catawba and McGuire Nuclear Stations," the NRC staff reported on the closure of those issues.

The staff finds that reference by Duke Energy Corporation (DEC) in its June 13, 2000, submittal to resolution of these further confirmatory issues in the Catawba SSER is not sufficient to establish the basis for the satisfaction and deletion of the elements of the McGuire Unit 2 LC on hydrogen control measures. Therefore, DEC is requested to provide a detailed discussion of the measures taken to satisfy each of the elements of the McGuire Unit 2 LC on hydrogen control measures.

DEC's response should include information of a specificity comparable to that provided in DEC's report, "An Analysis of Hydrogen Control Measures at McGuire Nuclear Station," as submitted in October 30, 1981, and subsequently revised. This should include reference to the dates of modifications and the number and placement of added igniters.

Clarification should also be provided regarding the total number of igniters in the system. SSER-7 evaluated a 66-igniter system, and the LC required six additional igniters to be installed. However, the system currently described in the Updated Final Safety Analysis Report includes only 70 igniters.

LC 2.C(4), Thermal Sleeves for McGuire Unit 2

LC 2.C(4) required that DEC provide a report justifying operation with thermal sleeves removed from selected locations in the reactor coolant system. DEC responded by letter dated May 13, 1983, providing the results of evaluations to support continued operation without the subject thermal sleeves installed. NRC's letter and safety evaluation of December 30, 1986, concluded that continued operation was acceptable with the thermal sleeves permanently removed. The staff's acceptance recognized that the McGuire TS 3/4 3.5.2 required reporting of ECCS actuations and injections, and the usage factor of each nozzle whenever its value exceeds 0.70. DEC is requested to provide a discussion of how the nozzle usage factor is currently monitored and of DEC's planned actions in the event its value exceeds the 0.70 value.

LC 2.C(7), Fire Protection for McGuire Unit 2

DEC stated that LC 2.C(7), item (c) had been met on the basis that its letter¹ of May 13, 1983, provided a schedule for installation of reactor coolant system cold-leg temperature (T-cold) monitors as part of the Standby Shutdown System and that a second letter² provided a schedule for installation of source-range neutron flux instrumentation. However, these letters provide only a provisional schedule for the installation of this instrumentation and fail to document that the instrumentation was actually installed. Further, Selected Licensee Commitments, section 16.9.7, Table 16.9.7-1, does not include this instrumentation. DEC is requested to provide further justification for the proposed deletion of this item.

LC 2.C(10)(c), Inadequate Core Cooling Instrumentation (ICCI) for McGuire Unit 2

LC 2.C(10)(c), part (2) required that prior to startup following the first refueling outage, the licensee shall upgrade the in-containment portion of the incore thermocouple system (ITS) and provide a schedule for update of the remainder of the system. The NRC staff issued a safety evaluation on the system in September 17, 1984, that concluded that McGuire's proposed final ICCI was in compliance with the Item II.F.2 requirements and would be acceptable for Unit 2 upon upgrading the existing ICCI, implementation of the revised emergency operating procedures, and installation and calibration of the reactor vessel level instrumentation system. DEC's letter of June 25, 1985, provided a status of the ICCI implementation of the installation, functional testing, and calibration of the ITS, as well as the implementation of the revised EOPs. DEC's June 25, 1985, letter stated that NRC approval of plant specific installation was "to be determined" for Unit 2. It also said a further DEC status report would be submitted. DEC is requested to provide further updating of the status of this information which demonstrates that the requirements of the LC have been met.

LC 2.C(10)(d), Anticipatory Reactor Trip for McGuire Unit 2

The McGuire Unit 2 FOL includes an LC on Anticipatory Reactor Trip. Please provide test information that confirms that this test was completed as required by the LC and that the test acceptance criteria were met.

¹ May 13, 1983, Hal B. Tucker to Harold R. Denton, MNS, Docket No. 50-370, License Condition 2.C.7.(c), schedule for installation of reactor coolant system cold-leg temperature (T-cold) monitors.

² May 13, 1983, Hal B. Tucker to Mr. Harold R. Denton, MNS, Docket No. 50-370, License Condition 2.C.7.(c), Provisional schedule for installation of source-range neutron flux instrumentation.

LC 2.C(11)(d), Control Room Design (I. D. 1)

DEC stated that LC 2.C(11)(d) had been met on the basis that SSER-6 reported the issue to be complete. The staff reviewed this issue as reported in the DEC letters dated February 18, 1983, and August 15, 1980, and in SSER-4, dated January 1981. The NRC's technical review of the issue was complete as reported in SSER-6. However, SSER-6 also noted that verification of implementation remained to be performed. DEC is requested to provide further information demonstrating that these issues have been resolved as required by the LC.

LC 2.D, Exemptions to Appendix G for Units 1 and 2

The McGuire FOLs each contain an LC on Appendix G exemptions. Multiple exemptions were discussed in SSER-2 and SSER-4. The licensee stated that the need for some of these exemptions was obviated by later revisions to the requirements of the Commission's regulations in Appendix G. However, DEC's proposed justification is not sufficiently detailed to permit a staff review of this issue. DEC is requested to submit specific information's identifying (a) each of the exemptions addressed by SSER-2 and 4, (b) those exemptions DEC proposes are no longer needed, and (c) the specific change in the regulations that obviates the continued need for the exemption.

McGuire Nuclear Station

cc:

Ms. Lisa F. Vaughn
Legal Department (PBO5E)
Duke Energy Corporation
422 South Church Street
Charlotte, North Carolina 28201-1006

County Manager of
Mecklenburg County
720 East Fourth Street
Charlotte, North Carolina 28202

Michael T. Cash
Regulatory Compliance Manager
Duke Energy Corporation
McGuire Nuclear Site
12700 Hagers Ferry Road
Huntersville, North Carolina 28078

Anne Cottingham, Esquire
Winston and Strawn
1400 L Street, NW.
Washington, DC 20005

Senior Resident Inspector
c/o U.S. Nuclear Regulatory Commission
12700 Hagers Ferry Road
Huntersville, North Carolina 28078

Dr. John M. Barry
Mecklenburg County
Department of Environmental
Protection
700 N. Tryon Street
Charlotte, North Carolina 28202

Mr. Peter R. Harden, IV
VP-Customer Relations and Sales
Westinshouse Electric Company
5929 Carnegie Blvd.
Suite 500
Charlotte, North Carolina 28209

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P. O. Box 629
Raleigh, North Carolina 27602

Mr. C. Jeffrey Thomas
Manager - Nuclear Regulatory
Licensing
Duke Energy Corporation
526 South Church Street
Charlotte, North Carolina 28201-1006

Elaine Wathen, Lead REP Planner
Division of Emergency Management
116 West Jones Street
Raleigh, North Carolina 27603-1335

Mr. Richard M. Fry, Director
Division of Radiation Protection
North Carolina Department of
Environment, Health and Natural
Resources
3825 Barrett Drive
Raleigh, North Carolina 27609-7721

Mr. T. Richard Puryear
Owners Group (NCEMC)
Duke Energy Corporation
4800 Concord Road
York, South Carolina 29745