



**Duke Energy Corporation**

McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-9340  
(704) 875-4800 OFFICE  
(704) 875-4809 FAX

H. B. Barron  
Vice President

June 13, 2000

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: Duke Energy Corporation  
McGuire Nuclear Station  
Docket Nos. 50-369, 50-370  
Proposed Amendment to Facility Operating Licenses  
Nos. NPF-9, NPF-17

Pursuant to 10CFR50.90, this letter submits a license amendment request (LAR) for McGuire Nuclear Station Units 1 and 2 Facility Operating Licenses (FOL). Duke Energy Corporation proposes that administrative changes be made to update the McGuire FOLs. This LAR will: 1) delete existing License Conditions which have been met by completed Duke actions or are imposed by other regulatory requirements, or 2) makes other miscellaneous changes to the FOLs. As a result of a recently completed Duke review, many of the existing McGuire License Conditions and other provisions of the FOLs were determined to be outdated or otherwise no longer applicable to the plant. It should be beneficial to both Duke and the NRC to revise the McGuire FOLs such that they reflect greater consistency with current conditions and should also facilitate license renewal. A similar license amendment (164/156) was approved by the NRC on April 23, 1998 for Duke's Catawba Nuclear Station (TAC NOS. MA0359 and MA0360).

The contents of this amendment package are as follows:

Attachments 1a and 1b provide markup copies of the current FOLs for McGuire Units 1 and 2 respectively. These markup copies show the proposed changes and are based on the most current versions of the FOLs as known by Duke. Attachments 2a and 2b contain proposed new FOL pages for McGuire Units 1 and 2 respectively. Attachment 3 provides a description of the proposed changes and technical justification. Each of the affected License Conditions or other FOL sections are stated in Attachment 3 and a justification is provided for each requested

4RR-057

A001

U. S. Nuclear Regulatory Commission  
Page 2  
June 13, 2000

deletion or other change. Attachment 4 documents the determination that this LAR contains No Significant Hazards Considerations, pursuant to the criteria of 10 CFR 50.92. Attachment 5 provides the Environmental Assessment, pursuant to 10 CFR 51.22 (b). For this LAR there is a regulatory basis for categorical exclusion from the requirement of performing an environmental assessment/impact statement.

Implementation of this LAR will not impact the McGuire Technical Specifications (Appendix A of the Facility Operating License) or the McGuire UFSAR. In accordance with Duke administrative procedures and the Quality Assurance Program Topical Report, this LAR has been previously reviewed and approved by the McGuire Site Plant Operations Review Committee and the Duke Corporate Nuclear Safety Review Board. Pursuant to 10CFR50.91, a copy of this LAR is being sent to the State of North Carolina.

Questions regarding this LAR should be directed to Kay Crane, McGuire Regulatory Compliance at 704-875-4306 or Mike Cash, McGuire Regulatory Compliance Manager at 704-875-4117.

Very truly yours,



H. B. Barron, Vice President  
McGuire Nuclear Station

Attachments

U. S. Nuclear Regulatory Commission  
June 13, 2000  
Page 3

L. A. Reyes  
Administrator, Region II  
U. S. Nuclear Regulatory Commission  
Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA. 30303

F. Rinaldi  
NRC Senior Project Manager (MNS)  
Office of Nuclear Reactor Regulation  
One White Flint North, Mail Stop 0-14H25  
Washington, D.C. 20555

S. M. Shaeffer  
NRC Senior Resident Inspector  
McGuire Nuclear Station

R. M. Frye, Director  
Division of Radiation Protection  
State of North Carolina  
3825 Barrett Drive  
Raleigh, N.C. 27609-7221

U. S. Nuclear Regulatory Commission  
June 13, 2000  
Page 4

H. B. Barron, being duly sworn, states that he is Vice President of McGuire Nuclear Station; that he is authorized on the part of Duke Energy Corporation to sign and file with the U. S. Nuclear Regulatory Commission these revisions to the McGuire Nuclear Station Facility Operating Licenses Nos. NPF-9 and NPF-17; and, that all statements and matters set forth therein are true and correct to the best of his knowledge.

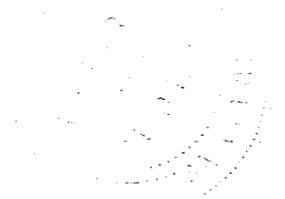
*H B Barron*

H. B. Barron, Vice President  
McGuire Nuclear Station  
Duke Energy Corporation

Subscribed and sworn to before me this 13th day of June, 2000

*Deborah S. Rome* Deborah S. Rome  
Notary Public

My Commission Expires: December 19, 2004



U. S. Nuclear Regulatory Commission  
June 13, 2000  
Page 5

bxc: Master File  
RGC File  
ECO50-ELL  
NSRB

Attachment 1a

McGuire Unit 1 Facility Operating License Marked Copy



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

DUKE ENERGY CORPORATION

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

FACILITY OPERATING LICENSE

LICENSE NO. NPF-9

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for license filed by the Duke Energy Corporation (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the McGuire Nuclear Station, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-83 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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;
  - E. The licensee is technically and financially qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
  - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-9 (~~subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B~~) is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied;
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on June 9, 1981, the License for Fuel-Loading and Zero Power Testing issued on January 23, 1981, as amended, is superseded by Facility Operating License No. NPF-9 which is hereby issued to the Duke Energy Corporation (the licensee) to read as follows:
- A. This license applies to the McGuire Nuclear Station, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by the Duke Energy Corporation (licensee). The facility is located on the licensee's site in Mecklenburg County, North Carolina on the shore of Lake Norman approximately 17 miles northwest of Charlotte, North Carolina and is described in Duke Energy Corporation's "Final Safety Analysis Report," as supplemented and amended, and in its Environmental Report, as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Corporation:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, possess, use, and operate the facility at the designated location in Mecklenburg County, North Carolina, in accordance with the limitations set forth in the license;
    - (2) Pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material a sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (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; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of McGuire Nuclear Station, Units 1 and 2.
- (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 Energy Corporation Training and Technology Center.

C. This 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 <sup>a</sup> reactor core ~~power levels not in excess~~ of 3411 megawatts thermal (100% power).

Full Steady State Power level

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 176, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Initial Test Program

The licensee shall conduct the initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended) without making any modifications to this program unless such modifications are in accordance with the provisions of 10 CFR Section 50.59. In addition, the licensee shall not make any major modifications to this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended;
- b. Modification of test objectives, methods or acceptance criteria for any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended;
- c. Performance of any test at a power level different from that described in the program, as limited by this license authorization; and
- d. Failure to complete any tests included in the described program (planned or scheduled) for power levels up to the authorized power level.

(4) Fire Protection Program

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility ~~through the 1989 annual FSAR update~~ and as approved in the SER dated March 1978 and Supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- a. ~~Duke shall implement a Standby Shutdown Facility System to assure shutdown capability during certain postulated fire events as indicated in Duke's letter, dated January 31, 1979. All required changes shall be completed three months after~~

the first refueling of Unit 1, but not later than 24 months after initial fuel loading of Unit 1.

- b. Duke shall perform required modifications to the oil collection system and fire suppression system for the Reactor Coolant Pump (RCP) motor within three months after the first refueling of Unit 1, but not later than 24 months after initial fuel loading of Unit 1.

Prior to commercial operation the licensee shall complete to the satisfaction of the Office of Inspection and Enforcement all required fire protection items identified in Table 9.5-1 and Appendix B of Supplement 5 to the Safety Evaluation Report (NUREG-0422).

(5) Compliance With Regulatory Guide 1.97

In accordance with the schedule submitted by the licensee, or as directed by the Commission, the licensee shall implement modifications necessary to comply with Revision 2 of Regulatory Guide 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," dated December 1980 as modified by the licensee's commitments to NUREG-0588 and NUREG-0737.

(6) Steam Generator Inspection

Prior to start-up after the first refueling, the licensee shall install inspection ports in each steam generator or have an acceptable alternative for inspection. This condition references item 5.3.1 in SER Supplement 4, NUREG-0422.

(7) Environmental Qualification

The licensee shall take the following remedial actions, or alternative acceptable actions, with respect to the environmental qualification requirements for Class IE equipment (SSER #5\*7.8):

- (a) No later than June 30, 1982, all safety-related electrical equipment exposed to a harsh environment in the facility shall be qualified in accordance with the requirements of NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment".

\*Reference is to the appropriate sections of the Safety Evaluation Report, Supplement No. 5 (NUREG-0422, April 1981)

(b) Pursuant to SECY-80-370, dated August 6, 1980, complete and auditable records must be available and maintained at a central location which describes the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with NUREG-0588. Such records shall be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance no later than June 30, 1982.

(c) Provide the NRC with a description of the required equipment qualification corrective action no later than July 15, 1981.

(8) Radioactive Waste Treatment System

Prior to initial criticality, the licensee shall ensure the operability of radwaste systems to the satisfaction of the Office of Inspection and Enforcement including completion of testing of HEPA filters and charcoal adsorbers associated with all ventilation systems.

(9) Piping System Reanalysis

The licensee shall provide the NRC with the results of its seismic system piping reanalysis within 90 days of the issuance of this license. (SSER #5-3.7.2)

(10) Category I Masonry Walls

Prior to startup following the first refueling or as directed by the Commission, the licensee shall evaluate all Category I Masonry Walls to final staff criteria and implement required modifications that are indicated by the evaluation.

(11) NUREG-0737 Conditions

The licensee shall complete the following conditions to the satisfaction of the NRC. These conditions reference the appropriate items in Section 22.2, "Fuel-Loading and Low Power Testing Requirements", in SER Supplements 4 & 5, NUREG-0422.

(a) Shift Technical Advisor (I.A.1.1)

The licensee shall continue to provide a fully-trained on-shift technical advisor to the shift supervisor.

(b) Independent Safety Engineering Group (I.B.1.2)

The licensee shall continue to have an onsite Independent Safety Engineering Group.

(c) Operating Activities (I.C.6)

Prior to exceeding 1% power the licensee shall provide adequate procedures to verify the correct performance of the licensee's operating activities. These procedures shall be maintained by the licensee.

(d) Control Room Design (I.D.1)

The licensee shall complete the following conditions to the satisfaction of the Commission prior to resuming power operation after the first refueling:

- 1) Controllers with revised scales (0 at top and 100% at bottom) shall be replaced and signal reversing relays shall be incorporated where applicable.
- 2) All applicable meter scales shall be permanently marked.
- 3) The licensee shall rescale circular displays for clarity and eliminate double ranges on circular displays.
- 4) Strip chart selector switches which can be placed in an intermediate (no-selection) position shall be replaced.
- 5) Appropriate modifications to the normal and emergency lighting systems shall be made to ensure adequate illumination of the control room under all operating conditions.

As a reference, these conditions are further described in Supplement No. 4 to the SER (NUREG-0422), Appendix D, items 3b, 4a, 4f and 9b, respectively.

The licensee shall complete each of the following conditions to the satisfaction of the NRC by the times indicated. Each of the following conditions references the appropriate item in Section 22.3, "Full-Power Requirements", in SER Supplement 5, NUREG-0422.

a. NSSS Vendor Review Procedures (I.C.7)

Prior to exceeding 5% power, the licensee shall document that the Westinghouse review of the power ascension test procedures is complete.

b. Training During Low-Power Testing (I.G.1)

Prior to exceeding 5% power the licensee shall complete the required Special Tests and the low-power test training program. The results of the test program shall be provided to the NRC within 30 days.

c. Post Accident Sampling (II.B.3)

The licensee shall install a high radiation sampling system for obtaining reactor coolant and containment atmosphere sampling under degraded core accident conditions without excessive exposure by January 1, 1982.

d. Training for Mitigating Core Damage (II.B.4)

Prior to exceeding 5% power the licensee shall complete training for mitigating core damage.

e. Auxiliary Feedwater System Evaluation (II.E.1.1)

Prior to exceeding 5% power the licensee shall complete performance testing of the auxiliary feedwater system pumps and shall submit a report within 30 days after all tests are completed.

f. Inadequate Core Cooling Instruments (II.F.2)

- (1) The licensee shall install a reactor vessel water level instrumentation system prior to startup after the first refueling.
- (2) Prior to exceeding 5% power the licensee shall install a full range in-core thermocouple temperature (2300° F) backup display; and
- (3) The licensee shall upgrade the in-containment portion of the incore thermocouple system prior to startup following the first refueling outage, and shall provide a schedule for upgrade of the remainder of the system in the Regulatory Guide 1.97 Accident Monitoring Review Report submittal pursuant to NUREG 0737, Supplement 1.

-9-

g. Anticipatory Reactor Trip (II.K.3.10)

Prior to exceeding 50% power the licensee shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

The licensee shall complete the following conditions to the satisfaction of the staff by the times indicated. These conditions reference the appropriate item in Section 22.4, "NRC Actions" in SER Supplement 5, NUREG-0422:

h. Hydrogen Control Measures (II.B.7)

- (1) Prior to startup following the first refueling outage, the Commission must confirm that an adequate hydrogen control system for the plant is installed and will perform its intended function in a manner that provides adequate safety margins.
- (2) During the interim period of operation, the licensee shall continue a research program on hydrogen control measures and the effects of hydrogen burns on safety functions and shall submit to the NRC quarterly reports on that research program.
  - (a) The first quarterly report shall contain a detailed description of the Duke Power Company's program which shall generally conform to pertinent portions of the program outlined in "Research on Hydrogen Combustion and Control Quarterly Report", Tennessee Valley Authority, Sequoyah Nuclear Plant, December 15, 1981, but which shall also include, [but not be limited to] the following items:
    - 1) Improved calculational methods for containment temperature and ice condenser response to hydrogen combustion.

- 2) Research to address the potential for local detonation.
- 3) Confirmatory tests on selected equipment exposed to hydrogen burns.
- 4) New calculations to predict differences between expected equipment temperature environments and containment temperature.
- 5) Evaluate and resolve any anomalous results occurring during the course of its ongoing test program.

(b) The results of these investigations will be provided to the staff for review in October 1981. A schedule for confirmatory tests beyond this date will be provided consistent with the requirement to meet the January 31, 1982 deadline, Section (11)h(1) of the license.

Operation of the hydrogen mitigation igniter system shall be activated upon a safety injection signal with accompanying indications of a loss of coolant accident.

The licensee shall complete each of the following conditions to the satisfaction of the NRC by the times indicated. Each of the following conditions references the appropriate item in Section 22.5, "Dated Requirements" in SER Supplement 5, NUREG-0422:

i. Reactor Coolant System Vents (II.B.1)

Prior to exceeding 1% power the licensee shall provide information on procedures and testing including measures to preclude inadvertent operation;

j. Relief and Safety Valve Tests (II.D.1)

Prior to July 1, 1982, the licensee shall provide documentation for relief valves, safety valves and associated piping in accordance with the EPRI December 15, 1980 letter as approved by the NRC and shall qualify block valves by July 1, 1982, and shall submit a report demonstrating said qualification;

k. Commission Orders on Babcock & Wilcox Plants, Subsequently Applied to all PWR Plants (II.K.2)

Prior to January 1, 1982, the licensee as a participant in the Westinghouse Owners Group shall:

- (1) Submit a detailed analysis of the thermal mechanical conditions in the reactor vessel during recovery from small break LOCAs with an extended loss of all feedwater (II.K.2.13).
- (2) Provide an analysis of the potential for voiding in the reactor coolant system during anticipated transients (II.K.2.17).
- (3) Provide a bench mark analysis of sequential auxiliary feedwater flow to the steam generators following a loss of main feedwater (II.K.2.19).

l. Final Recommendations of B&O Task Force (II.K.3)

- (1) With respect to installation of the anticipatory reactor trip (II.K.3.12), prior to exceeding 5% rated power the licensee shall install a trip that meets the stated criteria.
- (2) With respect to a revised small break LOCA model (II.K.3.30), the licensee shall submit prior to May 1, 1982 to the NRC a revised model to account for recent experimental data including data from the LOFT Test Facility and the Semiscale Test Facility.

m. Upgrade Emergency Preparedness

The licensee shall submit by July 1, 1981 a description of how the augmented staffing guidance of Table B-1, NUREG-0654, Rev. 1, will be met by July 1, 1982. (III.A.1-1, and Appendix C, page C-13).

n. Upgrade Emergency Support Facilities

- (1) The licensee shall submit by June 15, 1981 the conceptual design description of emergency response facilities in sufficient detail to describe how the guidance of NUREG-0696 will be met (III.A.2, and Appendix C, Section H, page C-8)
- (2) The licensee shall provide meteorological and dose assessment capability to meet the guidance of Appendix 2, NUREG-0654, Rev. 1, as follows: (1) a functional description of upgraded capabilities by January 1, 1982, and (2) full operational capability by July 31, 1983. (III.A.2, and Appendix C, Section H, page C-8)

(3) The licensee shall revise, prior to exceeding 1% power, the emergency plan implementing procedures to incorporate the following in dose projections:

(a) actual source terms, rather than design basis accident source terms.

(b) realistic meteorological conditions over the dose time period.

(c) actual containment pressure. (III.A.2, Appendix C, and Section H, page C-8)

(12) Steam Generator Design Modification

The licensee shall conduct the inspection, testing and monitoring program as described in the attachment to Hal B. Tucker's letters of February 3 and April 28, (revised), 1983. The licensee shall not make any major modifications to this program unless prior NRC approval is received.

Major modifications are defined as:

a. Elimination of any identified testing, inspection or monitoring,

b. Changes in the frequency of performing the identified testing, inspection or monitoring, and

c. Reduction in the scope of any of the identified testing, inspection or monitoring.

(13) Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. ~~184~~, are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

revised amendment number

D. The facility requires an exemption from certain requirements of Appendix G to 10 CFR Part 50. This exemption is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 2 and in Supplement No. 4. This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption is, therefore, hereby granted. With the granting of this exemption, the facility will operate, to the extent authorized therein, in conformity with the application, as amended, the provisions of the Act; and the rules and regulations of the Commission;

2.E. Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved ~~physical Nuclear security, guard training and qualification, and safeguards contingency plans~~ <sup>plans</sup> including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain ~~safeguards information~~ protected under 10 CFR 73.21, ~~are~~ <sup>is</sup> entitled: "~~McGuire Nuclear Station Physical Security Plan,~~" with revisions submitted through September 25, 1987; "~~McGuire Nuclear Station Training and Qualification Plan,~~" with revisions submitted through July 3, 1986; and "~~McGuire Nuclear Station Safeguards Contingency Plan,~~" with revisions submitted through March 21, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

and  
Contingency

"Nuclear Security and Contingency Plan," as revised per 10 CFR 50.54(p). The plan which does NOT contain safeguards information is entitled "Nuclear Security Training and Qualification Plan," as revised per 10 CFR 50.54(p).

2.F. (Deleted)

~~G. The licensee shall report any violations of the requirements contained in Section 2 Items C.(1), C.(3) through C.(11), E and F of this license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.~~

~~H. The licensee shall immediately notify the NRC of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.~~

I. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

J. Pursuant to an Order by the Atomic Safety and Licensing Board, dated April 23, 1975, the Nuclear Regulatory Commission incorporates herein the following antitrust conditions:

a. The licensee makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the

desirability of participating in the transaction. Accordingly, the licensee will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to the licensee. There are net benefits in a transaction if the licensee recovers the cost of the transaction (as defined in subparagraph (1)(d) hereof) and there is no demonstrable net detriment to the licensee arising from the transaction.

(1) As used herein:

- (a) "Bulk Power" means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.
- (b) "Neighboring Entity" means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of the following criteria: (1) its existing or proposed facilities are economically and technically feasible of interconnection with those of the licensee and (2) with the exception of municipalities, cooperatives, governmental agencies or authorities, and associations, it is, or upon commencement of operations will be, a public utility and subject to regulation with respect to rates and service under the laws of North Carolina or South Carolina or under the Federal Power Act; provided, however, that as to associations, each member of such association is either a public utility as discussed in this clause (2) or a municipality, a cooperative or a governmental agency or authority.
- (c) Where the phrase "neighboring entity" is intended to include entities engaging or proposing to engage only in the distribution of electricity, this is indicated by adding the phrase "including distribution systems."
- (d) "Cost means any appropriate operating and maintenance expenses, together with all other costs, including a reasonable return on the licensee's investment, which

are reasonably allocable to a transaction. However, no value shall be included for loss of revenues due to the loss of any wholesale or retail customer as a result of any transaction hereafter described.

- (2) (a) The licensee will interconnect and coordinate reserves by means of the sale and exchange of emergency and scheduled maintenance bulk power with any neighboring entity(ies), when there are net benefits to each party, on terms that will provide for all of the licensee's properly assignable costs as may be determined by the Federal Energy Regulatory Commission and consistent with such cost assignment will allow the other party the fullest possible benefits of such coordination.
- (b) Emergency service and/or scheduled maintenance service to be provided by each party will be furnished to the fullest extent available from the supplying party and desired by the party in need. The licensee and each party will provide to the other emergency service and/or scheduled maintenance service if and when available from its own generation and, in accordance with recognized industry practice, from generation of others to the extent it can do so without impairing service to its customers, including other electric systems to whom it has firm commitments.
- (c) Each party to a reserve coordination arrangement will establish its own reserve criteria, but in no event shall the minimum installed reserve on each system be less than 15%, calculated as a percentage of estimated peak load responsibility. Either party, if it has, or has firmly planned, installed reserves in excess of the amount called for by its own reserve criterion, will offer any such excess as may in fact be available at the time for which it is sought and for such period as the selling party shall determine for purchase in accordance with reasonable industry practice by the other party to meet such other party's own reserve requirements. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other part(ies) in meeting the normal contingencies of operating its (their) system(s). However, in no circumstances shall such spinning reserve requirement exceed the installed reserve requirement.

- (d) Interconnections will not be limited to low voltages when higher voltages are available from the licensee's installed facilities in the area where interconnection is desired and when the proposed arrangement is found to be technically and economically feasible.
  - (e) Interconnection and reserve coordination agreements will not embody provisions which impose limitations upon the use or resale of power and energy sold or exchanged pursuant to the agreement. Further, such arrangements will not prohibit the participants from entering into other interconnection and coordination arrangements, but may include appropriate provisions to assure that (i) the licensee receives adequate notice of such additional interconnection or coordination, (ii) the parties will jointly consider and agree upon such measures, if any, as are reasonably necessary to protect the reliability of the interconnected systems and to prevent undue burdens from being imposed on any system, and (iii) the licensee will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.
- (3) The licensee currently has on file, and may hereafter file, with the Federal Energy Regulatory Commission contracts with neighboring entity(ies) providing for the sale and exchange of short-term power and energy, limited term power and energy, economy energy, non-displacement energy, and emergency capacity and energy. The licensee will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable the licensee to recover the full costs allocable to such transaction.
- (4) The licensee currently sells capacity and energy in bulk on a full requirements basis to several entities engaging in the distribution of electric power at retail. In addition, the licensee supplies electricity directly to ultimate users in a number of municipalities. Should any such entity(ies) or municipality(ies) desire to become a neighboring entity as defined in subparagraph (1)(b) hereof (either alone or through combination with others), the licensee will assist in facilitating the necessary transition through the sale of partial requirements firm power and energy to the extent that, except for such transition, the licensee would otherwise be supplying firm power

and energy. The provision of such firm partial requirements service shall be under such rates, terms and conditions as shall be found by the Federal Energy Regulatory Commission to provide for the recovery of the licensee's cost. The licensee will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by the licensee when such municipality lawfully engages in the distribution of electric power at retail.

- (5) (a) The licensee will facilitate the exchange of electric power in bulk in wholesale transactions over its transmission facilities (1) between or among two or more neighboring entities including distribution systems with which it is interconnected or may be interconnected in the future, and (2) between any such entity(ies) and any other electric system engaging in bulk power supply between whose facilities the licensee's transmission lines and other transmission lines would form a continuous electric path, provided that permission to utilize such other transmission lines has been obtained. Such transaction shall be undertaken provided that the particular transaction reasonably can be accommodated by the licensee's transmission system from a functional and technical standpoint and does not constitute the wheeling of power to a retail customer. Such transmission shall be on terms that fully compensate the licensee for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements.
- (b) The licensee will include in its planning and construction program sufficient transmission capacity as required for the transactions referred to in subparagraph (a) of this paragraph, provided that (1) the neighboring entity(ies) gives the licensee sufficient advance notice as may be necessary reasonably to accommodate its (their) requirements from a functional and technical standpoint and (2) that such entity(ies) fully compensate the licensee for its cost. In carrying out this subparagraph (b), however, the licensee shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to the licensee, or (b) which could be constructed by the requesting entity(ies)

without duplicating any portion of the licensee's existing transmission lines, or (c) which would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements. Where regulatory or environmental approvals are required for the construction or addition of transmission facilities needed for the transactions referred to in subparagraph (a) of this paragraph it shall be the responsibility of the entity(ies) seeking the transaction to participate in obtaining such approvals, including sharing in the cost thereof.

- (6) To increase the possibility of achieving greater reliability and economy of electric generation and transmission facilities, the licensee will discuss load projections and system development plans with any neighboring entity(ies).
- (7) When the licensee's plans for future nuclear generating units (for which application will hereafter be made to the Nuclear Regulatory Commission) have reached the stage of serious planning, but before firm decisions have been made as to the size and desired completion date of the proposed nuclear units, the licensee will notify all neighboring entities including distribution systems with peak loads smaller than the licensee's that the licensee plans to construct such nuclear units. Neither the timing nor the information provided need be such as to jeopardize obtaining the required site at the lowest possible cost.
- (8) The foregoing commitments shall be implemented in a manner consistent with the provisions of the Federal Power Act and all other lawful local, state and Federal regulation and authority. Nothing in these commitments is intended to determine in advance the resolution of issues which are properly raised at the Federal Energy Regulatory Commission concerning such commitments, including allocation of costs or the rates to be charged. The licensee will negotiate (including the execution of a contingent statement of intent) with respect to the foregoing commitments with any neighboring entity including distribution systems where applicable engaging in or proposing to engage in bulk power supply transactions, but

the licensee shall not be required to enter into any final arrangement prior to resolution of any substantial questions as to the lawful authority of an entity to engage in the transactions.

In addition, the licensee shall not be obligated to enter into a given bulk power supply transaction if: (1) to do so would violate, or incapacitate it from performing, any existing lawful contracts it has with a third party; (2) there is contemporaneously available to it a competing or alternative arrangement which affords it greater benefits which would be mutually exclusive of such arrangement; (3) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (4) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

- K. The licensee is authorized to receive from the Oconee Nuclear Station, Units 1, 2 and 3, possess, and store irradiated Oconee fuel assemblies containing special nuclear material, enriched to not more than 3.24% by weight U-235 subject to the following conditions:
- a. Oconee fuel assemblies may not be placed in the McGuire Nuclear Station, Unit 1 and 2, reactors.
  - b. Irradiated fuel shipped to McGuire Nuclear Station, Units 1 and 2, from Oconee shall have been removed from the Oconee reactor no less than 270 days prior to shipment.
  - c. No more than 300 Oconee irradiated fuel assemblies shall be received for storage at McGuire Nuclear Station.
  - d. Burnup of Oconee fuel shipped shall be no greater than 36,000 MW days per metric ton.
  - e. Receipt of irradiated Oconee fuel shall be limited by the use of the NFS-4 (NAC-1), NLI-1/2, TN-8, or TN-8L spent fuel casks.
  - f. The spent fuel pool crane travel shall be restricted by administrative controls to the paths required by ~~Technical Specification 3/4 9.7~~ whenever a spent fuel cask is being handled. Selected licensee Commitment 16.9.20
  - g. Oconee fuel assemblies may not be transferred from one McGuire spent fuel pool to the other.

- 2.L. This license is effective as of the date of issuance and shall expire at midnight on June 12, 2021.

FOR THE NUCLEAR REGULATORY COMMISSION

EDSON G. CASE for/

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Attachment:

1. Appendix A -  
    Technical Specifications
2. Appendix B -  
    DELETED (by Amendment No. 164)
3. Appendix C -  
    Additional Conditions

Date of Issuance: June 12, 1981

APPENDIX C

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-9

Duke Energy Corporation shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
<del>184</del>	<del>The licensee is authorized to relocate certain requirements included in Appendix A to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letters dated May 27, 1997, and amended by letters dated March 9, March 20, April 20, June 3, June 24, July 7, July 21, August 5, September 8, and September 15, 1998, and evaluated in the NRC staff's Safety Evaluation associated with this amendment.</del>	<del>All relocation shall be implemented within 90 days of the date of this amendment.</del>
184	The schedule for the performance of new and revised surveillance requirements shall be as follows:  For surveillance requirements (SRs) that are new in Amendment No. 184 the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment No. 184. For SRs that existed prior to Amendment No. 184, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment No. 184. For SRs that existed prior to Amendment No. 184, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of Amendment No. 184.	Within 90 days of the date of this amendment

APPENDIX C

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-9 (Continued)

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
	The maximum rod average burnup for any rod shall be limited to 60 GWd/mtU until the completion of an NRC environmental assessment supporting an increased limit.	Within 30 days of date of amendment

Attachment 1b

McGuire Unit 2 Facility Operating License Marked Copy



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

DUKE ENERGY CORPORATION

DOCKET NO. 50-370

MCGUIRE NUCLEAR STATION, UNIT 2

FACILITY OPERATING LICENSE

LICENSE NO. NPF-17

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for license filed by the Duke Energy Corporation (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the McGuire Nuclear Station, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-84 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 (except as exempted from compliance in Section 2.D. below);
  - E. The licensee is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
  - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-17, ~~subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B,~~ is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied;
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings and the Initial Decisions issued by the Atomic Safety and Licensing Board dated April 18, 1979, and May 26, 1981, and the Decision of the Atomic Safety and Licensing Appeal Board dated March 30, 1982, regarding this facility, Facility Operating License No. NPF-17 is hereby issued to the Duke Energy Corporation (the licensee) to read as follows:
- A. This license applies to the McGuire Nuclear Station, Unit 2, a pressurized water reactor and associated equipment (the facility) owned by the Duke Energy Corporation (licensee). The facility is located on the licensee's site in Mecklenburg County, North Carolina, on the shore of Lake Norman approximately 17 miles northwest of Charlotte, North Carolina, and is described in Duke Energy Corporation's "Final Safety Analysis Report," as supplemented and amended through Revision No. 45, and in its Environmental Report, as supplemented and amended through Revision No. 6;
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Corporation:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Mecklenburg County, North Carolina, in accordance with the procedures and limitations set forth in this license;
    - (2) Pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended through Revision No. 45;
    - (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (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 byproduct 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 Part 30 and 40, to receive, possess and process for release or transfer such byproduct material as may be produced by the Duke Energy Corporation Training and Technology Center.

C. This 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

full steady  
state power level

The licensee is authorized to operate the facility at <sup>a</sup> reactor core power levels not in excess of 3411 megawatts thermal (100% power). ~~in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.~~

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 158, are hereby incorporated into license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Antitrust Conditions

The licensee shall comply with the antitrust conditions delineated in Appendix C to this license;

(4) Thermal Sleeves (Section 3.9.2 of SSER #6)\*

By December 31, 1983, the licensee shall provide, for NRC staff review and approval, justification for continued operation with the seven thermal sleeves removed from selected locations in the reactor coolant system;

(5) Model D-3 Steam Generator (Section 5.3.1 of SSER #6)

Prior to operation in excess of 2,000 hours at power levels in excess of 5% power or operation at power levels in excess of 50% power, the licensee shall provide appropriate steam generator hardware modifications and implement appropriate surveillance measures with respect to the steam generator modification;

(6) Environmental Qualification (Section 7.8 of SER, SSER #4, #5, #6, #7)

The licensee shall environmentally qualify all electrical equipment within the scope of 10 CFR 50.49 in accordance with the implementation requirements of 10 CFR 50.49 (g).

(7) Fire Protection

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility ~~through the 1989 annual FSAR update~~ and as approved in the SER dated March 1978 and Supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(b) The license shall perform required modifications to the oil collection system and fire suppression system for the Reactor Coolant Pump (RCP) motor no later than March 1, 1984.

(c) Prior to exceeding 5% power, the licensee shall submit a schedule for installation of system instrumentation provisions for source range neutron flux and reactor coolant system temperature ( $T_{cold}$ ) monitors as an integral part of the Standby Shutdown System;

\* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

(8) Heavy Loads (Section 9.1.5 of SSER #6)

Prior to startup following the first refueling outage, the licensee shall comply with the guidelines of Section 5.1.1 of NUREG-0612 (Phase I - the six-month response to the NRC generic letter dated December 22, 1980) and prior to startup following the second refueling outage, the licensee shall have made commitments acceptable to the NRC regarding the guidelines of Sections 5.1.2 through 5.1.6 of NUREG-0612 (Phase II - nine-month responses to the NRC generic letter dated December 22, 1980);

(9) Initial Test Program (Section 14.0 of SER)

The licensee shall conduct the initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended through Revision No.45) without making any modifications to this program unless such modifications are in accordance with the provisions of 10 CFR Section 50.59. In addition, the licensee shall not make any major modifications to this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended through Revision No. 45,
- b. Modification of test objectives, methods or acceptance criteria for any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended through Revision No. 45,
- c. Performance of any test at a power level different from that described in the program, as limited by this license authorization, and
- d. Failure to complete any tests included in the described program (planned or scheduled) for power levels up to the authorized power level.

(10) NUREG-0737 Conditions (Section 22.3, 22.4, 22.5 of SSER #5 & #6 Section 13.3 of SSER #6)

a. Short Term Accident Analysis and Procedures Review (I.C.I)

Prior to exceeding 5% power, all of the Emergency Operating Procedures shall use the same format (either narrative or columnar).

b. Postaccident Sampling (II.B.3)

Prior to exceeding 5% power, a high-radiation sampling system for obtaining reactor coolant and containment atmosphere sampling under degraded core accident conditions shall be operable.

c. Inadequate Core Cooling Instruments (II.F.2)

- 1) Prior to startup following the first refueling outage, the licensee shall install a reactor vessel water level instrumentation system, and
- 2) Prior to startup following the first refueling outage, the licensee shall upgrade the in-containment portion of the incore thermocouple system and provide a schedule for update of the remainder of the system.

d. Anticipatory Reactor Trip (II.K.3.10)

Prior to exceeding 50% power the licensee shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

e. Hydrogen Control Measures (II.B.7)

- 1) Prior to startup following the first refueling outage, the licensee shall:
  - a. Install two additional igniter units in the containment lower compartment and four additional igniter units in the containment upper compartment in locations acceptable to the NRC staff.
  - b. Provide a means acceptable to the NRC staff of verifying the operational status of the hydrogen control system in the main control room.
  - c. Provide the capability to actuate the Hydrogen Mitigation System from the control room.
- 2) Operation of the hydrogen mitigation igniter system shall be activated upon a safety injection signal with accompanying indications of a loss of coolant accident.

f. Emergency Response Capability (I.C.1, I.D.1, I.D.2, III.A.1.2, III.A.2.2)

- 1) By April 15, 1983, the licensee shall submit a response to NRC generic letter 82-33, dated December 17, 1982, related to emergency response capabilities.
- 2) The licensee shall maintain interim emergency support facilities (Technical Support Center, Operations Support Center and the Emergency Operations Facility) until the upgraded facilities are completed.

(11) Protection of the Environment

Before engaging in additional construction or operational activities which may result in a significant adverse environmental impact that was not evaluated or that is significantly greater than that evaluated in the Final Environmental Statement dated April 1976, the licensee shall provide written notification to the Office of Nuclear Reactor Regulation.

(12) Reactor Trip Breakers (Section 7.2 of SSER #7)

On failure of any reactor trip breaker or reactor trip bypass breaker, either in service or during testing (on either undervoltage or shunt coils), preserve evidence of failure and notify the Commission pursuant to Technical Specification 6.9.1.10.

(13) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. ~~166~~, are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

revised amendment number

TABLE 1.

PERIODIC SURVEILLANCE/MAINTENANCE OF REACTOR TRIP BREAKERS AND REACTOR TRIP BYPASS BREAKERS

PRIOR TO EACH STARTUP  
(if not completed within past 7 days)  
(Reactor Trip Breakers)

MONTHLY SURVEILLANCE  
(each breaker every 31 days)  
(Reactor Trip Breakers)

EVERY 6 MONTHS  
SURVEILLANCE/MAINTENANCE  
(Reactor Trip and Reactor  
Trip Bypass Breakers)

1. functional test of UV trip device independently

1. a. functional test of UV trip device (independent)  
b. response time testing of UV/breaker on UV signal from RPS. (event recorders may be used)

1. response time testing of UV/breaker on UV signal from RPS. (visicorder shall be used and data trended)\*\*

2. functional test of Shunt trip device independently

2. functional test of Shunt trip device independently

2. trip shaft force measurements\*\*

3. functional test of manual reactor trip from the control room

3. UV output force measurement\*\*

4. functional test of Shunt trip device independently

5. servicing/lubrication/adjustments in accordance with licensee's maintenance procedures

6. check the dimensional tolerances of pre- and post-travel of the trip tab\*\*

7. Inspect lubricant and cleanliness of Roller Bearing\*\*

\*On failure of any reactor trip breaker or reactor trip bypass breaker, either in service or during testing (on either undervoltage or shunt coils), preserve evidence of failure and notify the Commission pursuant to Technical Specification 6.9.1.10.

D. ~~The facility requires an exemption from certain requirements of Appendix G to 10 CFR Part 50. This exemption is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 2 and in Supplement No. 4 (Section 5.2.3). This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption is, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of this exemption, the facility will operate, to the extent authorized therein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;~~

Nuclear and Contingency

E. Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "McGuire Nuclear Station Physical Security Plan," with revisions submitted through September 25, 1987; "McGuire Nuclear Station Training and Qualification Plan," with revisions submitted through July 3, 1986; and "McGuire Nuclear Station Safeguards Contingency Plan," with revisions submitted through March 21, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

Plans

F. ~~The licensee shall report any violations of the requirements contained in Section 2 Items C.(1), C.(4) through C.(11), and F of this license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the NRC Regional Administrator, Reg. II, or his designate, no later than the first working day following the violation, with a written followup report within 14 days;~~

"Nuclear Security and Contingency Plan," as revised per 10 CFR 50.54(p). The plan, which does not contain Safeguards Information is entitled "Nuclear Security Training and Qualification Plan," as revised per 10 CFR 50.54(p).

- G. ~~The licensee shall notify the Commission, as soon as possible but not later than one hour, of any accident at this facility which would result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission;~~
- H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims;
- I. In accordance with the Commission's direction in its Statement of Policy, Licensing and Regulatory Policy and Procedures for Environmental Protection; Uranium Fuel Cycle Impacts, October 29, 1982, this license is subject to the final resolution of the pending litigation involving Table S-3. See, Natural Resources Defense Council v. NRC, No. 74-1586 (D.C. cir. April 27, 1982); and
- J. The licensee is authorized to receive from the Oconee Nuclear Station, Units 1, 2 and 3, possess, and store irradiated Oconee fuel assemblies containing special nuclear material, enriched to not more than 3.24% by weight U-235 subject to the following conditions:
- a. Oconee fuel assemblies may not be placed in the McGuire Nuclear Station, Units 1 and 2, reactors.
  - b. Irradiated fuel shipped to McGuire Nuclear Station, Units 1 and 2, from Oconee shall have been removed from the Oconee reactor no less than 270 days prior to shipment.
  - c. No more than 300 Oconee irradiated fuel assemblies shall be received for storage at McGuire Nuclear Station.
  - d. Burnup of Oconee fuel shipped shall be no greater than 36,000 MW days per metric ton.
  - e. Receipt of irradiated Oconee fuel shall be limited by the use of the NFS-4 (NAC-1), NLI-1/2, TN-8, or TN-8L spent fuel casks.
  - f. The spent fuel pool crane travel shall be restricted by administrative controls to the paths required by ~~Technical Specification 3/4.9.7~~ whenever a spent fuel cask is being handled. Selected licensee Commitment 16.9.20
  - g. Oconee fuel assemblies may not be transferred from one McGuire spent fuel pool to the other.

- 2.K. This license is effective as of the date of issuance and shall expire at midnight on March 3, 2023.

FOR THE NUCLEAR REGULATORY COMMISSION

DARRELL EISENHUT for

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Attachment 1 - *deleted*
2. Appendix A -  
    Technical Specifications
3. Appendix B -  
    DELETED (by Amendment No. 146)
4. Appendix C -  
    Antitrust Conditions
5. Appendix D -  
    Additional Conditions

Date of Issuance: March 3, 1983

ATTACHMENT 1 TO LICENSE NPF-17

This attachment identifies certain preoperational tests, system demonstrations and other items which must be completed to the satisfaction of NRC Region II. The licensee shall not proceed without confirmation from Region II that the following items have been completed in accordance with the conditions and schedule set forth below.

1. Prior to initial criticality, the licensee shall complete to the satisfaction of the NRC Region II the requirements of the following open items:
  - a. Barton Class IF transmitters exhibiting thermal non-repeatability (CDR 82-06).
  - b. Complete design engineering evaluation of problems experienced with Busman indicating fuses (81-33-01).
  - c. Verify operability (i.e., sounding) of containment evacuation alarms. This is to assure alarm operability and adequate audibility of the alarms. (A speaker malfunction has previously occurred in Unit 1 in November, 1981 where personnel could not hear the actuated alarm (81-33-03).
  - d. Identify, track, and reinspect during next plant heatup, as appropriate, piping system supports, restraints, and clearances, which were: (1) unacceptable for operations turnovers prior to initial plant heatup; (2) adjusted during initial plant heatup; (3) shimmed during or after initial plant heatup; and (4) modified subsequent to initial plant heatup (82-22-02), (82-22-03), (82-22-04), (82-22-05).
  - e. Repeat the pressurizer functional test so as to verify operability of all pressurizer heaters (82-25-01), (82-30-01).
  - f. Resolve the issue of an acceptable containment leak rate test. Contrary to ANSI/ANS 5698, the licensee failed to reduce containment pressure to less than 85% of ILRT pressure for 24 hours as to allow for outgassing of trapped air (82-27-01).
  - g. Review licensee's evaluation of a measurement technique in obtaining appropriate inlet pressure to the flowmeter that was used for the supplemented leak rate test (82-27-02).
  - h. Verify operability of the Standby Shutdown Facility (83-19-06).
  - i. Complete the reactor coolant system functional test (TP/2/A/1150/09) in order to verify monitoring capability of the core exit thermocouples in the SSF (83-19-07).

- j. Complete the turbine driven auxiliary feedwater pump test (TP/2/A/1250/04), (83-19-08).
- k. Resolve the issue of acceptable ECCS centrifugal charging pump flow performance (83-19-09).
- l. Complete electric hydrogen recombiner 2B system functional test (TP/2/A/1450/16), (83-19-10).
- m. Complete testing of power range detectors, NI system functional test (TP/2/A/1600/02), (83-19-11).
- n. Complete annulus system functional and filter tests (TP/2/A/1450/06, TP/2/A/1450/19), (83-19-12).
- o. Complete pre-operational filter test for containment purge and exhaust filters 2A and 2B (TP 12/B/1450/21), (83-19-13).
- p. Complete valve stroke timing tests on valves equipped with Rotork model NA-2 electrical motor operator switches (CDR 82-04).
- q. Provide satisfactory resolution of any deficiencies that may be identified during the preoperational testing program.
- r. Complete the containment high-range monitor calibration test (NUREG-0737, Item II.F.2.c.).
2. Prior to achieving 100% power, the licensee shall resolve to the satisfaction of Region II the NUREG-0737 open item:

II.B.3 Post Accident Sampling: Complete system installation and perform satisfactory functional checkout test.

Docket Nos. 50-369  
50-370

- NO changes -  
Included for  
information only

Appendix C

Antitrust Conditions

Pursuant to an Order by the Atomic Safety and Licensing Board, dated April 23, 1975, the Nuclear Regulatory Commission incorporates in Operating License NPF-17 the following antitrust conditions:

- a. The licensee makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the desirability of participating in the transaction. Accordingly, the licensee will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to the licensee. There are net benefits in a transaction if the licensee recovers the cost of the transaction (as defined in subparagraph (1)(d) hereof) and there is no demonstrable net detriment to the licensee arising from the transaction.

(1) As used herein:

- (a) "Bulk Power" means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.
- (b) "Neighboring Entity" means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of the following criteria: (1) its existing or proposed facilities are economically and technically feasible of interconnection with those of the licensee and (2) with the exception of municipalities, cooperatives, governmental agencies or

-No Changes-  
Included for information  
ONLY

authorities, and associations, it is, or upon commencement of operations will be, a public utility and subject to regulation with respect to rates and service under the laws of North Carolina or South Carolina or under the Federal Power Act; provided, however, that as to associations, each member of such association is either a public utility as discussed in this clause (2) or a municipality, a cooperative or a governmental agency or authority.

(c) Where the phrase "neighboring entity" is intended to include entities engaging or proposing to engage only in the distribution of electricity, this is indicated by adding the phrase "including distribution systems."

→ (d) "Cost" means any appropriate operating and maintenance expenses, together with all other costs, including a reasonable return on the licensee's investment, which are reasonably allocable to a transaction. However, no value shall be included for loss of revenues due to the loss of any wholesale or retail customer as a result of any transaction hereafter described.

(2) (a) The licensee will interconnect and coordinate reserves by means of the sale and exchange of emergency and scheduled maintenance bulk power with any neighboring entity(ies), when there are net benefits to each party, on terms that will provide for all of the licensee's properly assignable costs as may be determined by the Federal Energy Regulatory Commission and consistent with such cost assignment will allow the other party the fullest possible benefits of such coordination.

(b) Emergency service and/or scheduled maintenance service to be provided by each party will be furnished to the fullest extent available from the supplying party and desired by the party in need. The licensee and each party will provide to the other emergency service and/or scheduled maintenance service if and when available from its own generation and, in accordance with recognized industry practice, from generation of others to the extent it can do so without impairing service to its customers, including other electric systems to whom it has firm commitments.

-NO Changes -  
Included for  
information only

- (c) Each party to a reserve coordination arrangement will establish its own reserve criteria, but in no event shall the minimum installed reserve on each system be less than 15%, calculated as a percentage of estimated peak load responsibility. Either party, if it has, or has firmly planned, installed reserves in excess of the amount called for by its own reserve criterion, will offer any such excess as may in fact be available at the time for which it is sought and for such period as the selling party shall determine for purchase in accordance with reasonable industry practice by the other party to meet such other party's own reserve requirements. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other part(ies) in meeting the normal contingencies of operating its (their) system(s). However, in no circumstances shall such spinning reserve requirement exceed the installed reserve requirement.
- (d) Interconnections will not be limited to low voltages when higher voltages are available from the licensee's installed facilities in the area where interconnection is desired and when the proposed arrangement is found to be technically and economically feasible.
- (e) Interconnection and reserve coordination agreements will not embody provisions which impose limitations upon the use or resale of power and energy sold or exchanged pursuant to the agreement. Further, such arrangements will not prohibit the participants from entering into other interconnection and coordination arrangements, but may include appropriate provisions to assure that (i) the licensee receives adequate notice of such additional interconnection or coordination, (ii) the parties will jointly consider and agree upon such measures, if any, as are reasonably necessary to protect the reliability of the interconnected systems and to prevent undue burdens from being imposed on any system, and (iii) the licensee will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.
- (3) The licensee currently has on file, and may hereafter file, with the Federal Energy Regulatory Commission contracts with neighboring entity(ies) providing for the sale and exchange of short-term power and energy, limited term power and energy, economy energy, non-displacement energy, and emergency capacity and energy. The licensee

-NO Changes -  
Included for  
information only

will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable the licensee to recover the full costs allocable to such transaction.

- (4) The licensee currently sells capacity and energy in bulk on a full requirements basis to several entities engaging in the distribution of electric power at retail. In addition, the licensee supplies electricity directly to ultimate users in a number of municipalities. Should any such entity(ies) or municipality(ies) desire to become a neighboring entity as defined in subparagraph (1)(b) hereof (either alone or through combination with others), the licensee will assist in facilitating the necessary transition through the sale of partial requirements firm power and energy to the extent that, except for such transition, the licensee would otherwise be supplying firm power and energy. The provision of such firm partial requirements service shall be under such rates, terms and conditions as shall be found by the Federal Energy Regulatory Commission to provide for the recovery of the licensee's cost. The licensee will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by the licensee when such municipality lawfully engages in the distribution of electric power at retail.
- (5) (a) The licensee will facilitate the exchange of electric power in bulk in wholesale transactions over its transmission facilities (1) between or among two or more neighboring entities including distribution systems with which it is interconnected or may be interconnected in the future, and (2) between any such entity(ies) and any other electric system engaging in bulk power supply between whose facilities the licensee's transmission lines and other transmission lines would form a continuous electric path, provided that permission to utilize such other transmission lines has been obtained. Such transaction shall be undertaken provided that the particular transaction reasonably can be accommodated by the licensee's transmission system from a functional and technical standpoint and does not constitute the wheeling of power to a retail customer. Such transmission shall be on terms that fully compensate the licensee for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements
- (b) The licensee will include in its planning and construction program sufficient transmission capacity as required for the transactions referred to in subparagraph (a) of this paragraph, provided that (1) the neighboring entity(ies)

- No changes -  
Included for  
information  
ONLY

gives the licensee sufficient advance notice as may be necessary reasonably to accommodate its (their) requirements from a functional and technical standpoint and (2) that such entity(ies) fully compensate the licensee for its cost. In carrying out this subparagraph (b), however, the licensee shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to the licensee, or (b) which could be constructed by the requesting entity(ies) without duplicating any portion of the licensee's existing transmission lines, or (c) which would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements. Where regulatory or environmental approvals are required for the construction or addition of transmission facilities needed for the transactions referred to in subparagraph (a) of this paragraph it shall be the responsibility of the entity(ies) seeking the transaction to participate in obtaining such approvals, including sharing in the cost thereof.

- (6) To increase the possibility of achieving greater reliability and economy of electric generation and transmission facilities, the licensee will discuss load projections and system development plans with any neighboring entity(ies).
- (7) When the licensee's plans for future nuclear generating units (for which application will hereafter be made to the Nuclear Regulatory Commission) have reached the stage of serious planning, but before firm decisions have been made as to the size and desired completion date of the proposed nuclear units, the licensee will notify all neighboring entities including distribution systems with peak loads smaller than the licensee's that the licensee plans to construct such nuclear units. Neither the timing nor the information provided need be such as to jeopardize obtaining the required site at the lowest possible cost.
- (8) The foregoing commitments shall be implemented in a manner consistent with the provisions of the Federal Power Act and all other lawful local, state and Federal regulation and authority. Nothing in these commitments is intended to determine in advance the resolution of issues which are properly raised at the Federal Energy Regulatory Commission concerning such commitments, including allocation of costs or the rates to be charged. The licensee will negotiate (including the execution of a contingent statement of intent)

-NO changes -  
Included for  
Information only

with respect to the foregoing commitments with any neighboring entity including distribution systems where applicable engaging in or proposing to engage in bulk power supply transactions, but the licensee shall not be required to enter into any final arrangement prior to resolution of any substantial questions as to the lawful authority of an entity to engage in the transactions.

In addition, the licensee shall not be obligated to enter into a given bulk power supply transaction if: (1) to do so would violate, or incapacitate it from performing, any existing lawful contracts it has with a third party; (2) there is contemporaneously available to it a competing or alternative arrangement which affords it greater benefits which would be mutually exclusive of such arrangement; (3) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (4) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

APPENDIX D

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-17

Duke Energy Corporation shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
166	<del>The licensee is authorized to relocate certain requirements included in Appendix A to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letters dated May 27, 1997, and amended by letters dated March 9, March 20, April 20, June 3, June 24, July 7, July 21, August 5, September 8, and September 15, 1998, and evaluated in the NRC staff's Safety Evaluation associated with this amendment.</del>	<del>All relocation shall be implemented within 90 days of the date of this amendment.</del>
166	The schedule for the performance of new and revised surveillance requirements shall be as follows:  For surveillance requirements (SRs) that are new in Amendment No. 166 the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment No. 166. For SRs that existed prior to Amendment No. 166, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment No. 166. For SRs that existed prior to Amendment No. 166, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of Amendment No. 166.	Within 90 days of the date of this amendment

APPENDIX D

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-17 (Continued)

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
	The maximum rod average burnup for any rod shall be limited to 60 GWd/mtU until the completion of an NRC environmental assessment supporting an increased limit.	Within 30 days of date of amendment

Attachment 2a

McGuire Unit 1 Facility Operating License

Remove these pages:

Pages 1 through 19a

Appendix C

Insert these pages:

Pages 1 through 9

Appendix C

DUKE ENERGY CORPORATION  
DOCKET NO. 50-369  
MCGUIRE NUCLEAR STATION, UNIT 1  
FACILITY OPERATING LICENSE

License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
  - A. The application for license filed by the Duke Energy Corporation (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the McGuire Nuclear Station, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-83 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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;
  - E. The licensee is technically and financially qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
  - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-9 is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied;

- I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on June 9, 1981, the License for Fuel-Loading and Zero Power Testing issued on January 23, 1981, as amended, is superseded by Facility Operating License No. NPF-9 which is hereby issued to the Duke Energy Corporation (the licensee) to read as follows:
  - A. This license applies to the McGuire Nuclear Station, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by the Duke Energy Corporation (licensee). The facility is located on the licensee's site in Mecklenburg County, North Carolina, on the shore of Lake Norman approximately 17 miles northwest of Charlotte, North Carolina and is described in Duke Energy Corporation's "Final Safety Analysis Report," as supplemented and amended, and in its Environmental Report, as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Corporation:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Mecklenburg County, North Carolina, in accordance with the limitations set forth in the license;
    - (2) Pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
    - (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
    - (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; and
    - (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of McGuire Nuclear Station, Units 1 and 2.
    - (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 Energy Corporation Training and Technology Center.

C. This 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. are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Deleted

(4) Fire Protection Program

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility and as approved in the SER dated March 1978 and Supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(5) Deleted

(6) Deleted

(7) Deleted

(8) Deleted

(9) Deleted

(10) Deleted

(11) Deleted

(12) Deleted

(13) Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. 11, are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

D. Deleted

E. Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved nuclear security and contingency, guard training and qualification plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plan, which contains safeguards information protected under 10 CFR 73.21, is entitled, "Nuclear Security and Contingency Plan," Revision 0. The plan which does not contain safeguard information is entitled, "Nuclear Security Training and Qualification Plan," Revision 0. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. Deleted

G. Deleted

H. Deleted

I. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

J. Pursuant to an Order by the Atomic Safety and Licensing Board, dated April 23, 1975, the Nuclear Regulatory Commission incorporates herein the following antitrust conditions:

- a. The licensee makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the desirability of participating in the transaction. Accordingly, the licensee will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to the licensee. There are net benefits in a transaction if the licensee recovers the cost of the transaction (as defined in subparagraph (1)(d) hereof) and there is no demonstrable net detriment to the licensee arising from that transaction.

(1) As used herein:

- a. "Bulk Power" means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.
- b. "Neighboring Entity" means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of the following criteria:
  - (1) its existing or proposed facilities are economically and technically feasible of interconnection with those of the licensee and (2) with the exception of municipalities, cooperatives, governmental agencies or authorities, and associations, it is, or upon commencement of operations will be, a public utility and subject to regulation with respect to rates and service under the laws of North Carolina or South Carolina or under the Federal Power Act; provided, however, that as to associations, each member of such association is either a public utility as discussed in this clause (2) or a municipality, a cooperative or a governmental agency or authority.
- c. Where the phrase "neighboring entity" is intended to include entities engaging or proposing to engage only in the distribution of electricity, this is indicated by adding the phrase "including distribution systems."
- d. "Cost" means any appropriate operating and maintenance expenses, together with all other costs, including a reasonable return on the licensee's investment, which are reasonably allocable to a transaction. However, no value shall be included for loss of revenues due to the loss of any wholesale or retail customer as a result of any transaction hereafter described.

- (2) a. The licensee will interconnect and coordinate reserves by means of the sale and exchange of emergency and scheduled maintenance bulk power with any neighboring entity(ies), when there are net benefits to each party, on terms that will provide for all of the licensee's properly assignable costs as may be determined by the Federal Energy Regulatory Commission and consistent with such cost assignment will allow the other party the fullest possible benefits of such coordination.
- b. Emergency service and/or scheduled maintenance service to be provided by each party will be furnished to the fullest extent available from the supplying party and desired by the party in need. The licensee and each party will provide to the other emergency service and/or scheduled maintenance service if and when available from its own generation and, in accordance with recognized industry practice, from generation of others to the extent it can do so without impairing service to its customers, including other electric systems to whom it has firm commitments.

- c. Each party to a reserve coordination arrangements will establish its own reserve criteria, but in no event shall the minimum installed reserve on each system be less than 15%, calculated as a percentage of estimated peak load responsibility. Either party, if it has, or has firmly planned, installed reserves in excess of the amount called for by its own reserve criterion, will offer any such excess as may in fact be available at the time for which it is sought and for such period as the selling party shall determine for purchase in accordance with reasonable industry practice by the other party to meet such other party's own reserve requirements. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other part(ies) in meeting the normal contingencies of operating its (their) system(s). However, in no circumstances shall such spinning reserve requirement exceed the installed reserve requirement.
  - d. Interconnections will not be limited to low voltages when higher voltages are available from the licensee's installed facilities in the area where interconnection is desired and when the proposed arrangement is found to be technically and economically feasible.
  - e. Interconnection and reserve coordination agreements will not embody provisions which impose limitations upon the use or resale of power and energy sold or exchanged pursuant to the agreement. Further, such arrangements will not prohibit the participants from entering into other interconnection and coordination arrangements, but may include appropriate provisions to assure that (i) the licensee receives adequate notice of such additional interconnection or coordination, (ii) the parties will jointly consider and agree upon such measures, if any, as are reasonably necessary to protect the reliability of the interconnected systems and to prevent undue burdens from being imposed on any system, and (iii) the licensee will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.
- (3) The licensee currently has on file, and may hereafter file, with the Federal Energy Regulatory Commission contracts with neighboring entity(ies) providing for the sale and exchange of short-term power and energy, limited term power and energy, economy energy, non-displacement energy, and emergency capacity and energy. The licensee will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable the licensee to recover the full costs allocable to such transaction.
- (4) The licensee currently sells capacity and energy in bulk on a full requirements basis to several entities engaging in the distribution of electric power at retail. In addition, the licensee supplies electricity directly to ultimate users in a number of municipalities. Should any such entity(ies) or municipality(ies) desire to become a neighboring entity as defined in subparagraph (1)(b) hereof (either alone or through combination with others), the licensee will assist in facilitating the necessary transition through the sale of partial requirements firm power and energy to the extent that, except for such transition, the licensee would otherwise be supplying firm power and energy. The provision of such

firm partial requirements service shall be under such rates, terms and conditions as shall be found by the Federal Energy Regulatory Commission to provide for the recovery of the licensee's cost. The licensee will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by the licensee when such municipality lawfully engages in the distribution of electric power at retail.

- (5) a. The licensee will facilitate the exchange of electric power in bulk in wholesale transactions over its transmission facilities (1) between or among two or more neighboring entities including distribution systems with which it is interconnected or may be interconnected in the future, and (2) between any such entity(ies) and any other electric system engaging in bulk power supply between whose facilities the licensee's transmission lines and other transmission lines would form a continuous electric path, provided that permission to utilize such other transmission lines has been obtained. Such transaction shall be undertaken provided that the particular transaction reasonably can be accommodated by the licensee's transmission system from a functional and technical standpoint and does not constitute the wheeling of power to a retail customer. Such transmission shall be on terms that fully compensate the licensee for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements.
  - b. The licensee will include in its planning and construction program sufficient transmission capacity as required for the transactions referred to in subparagraph (a) of this paragraph, provided that (1) the neighboring entity(ies) gives the licensee sufficient advance notice as may be necessary reasonably to accommodate its (their) requirements from a functional and technical standpoint and (2) that such entity(ies) fully compensate the licensee for its cost. In carrying out this subparagraph (b), however, the licensee shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to the licensee, or (b) which could be constructed by the requesting entity(ies) without duplicating any portion of the licensee's existing transmission lines, or (c) which would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements. Where regulatory or environmental approvals are required for the construction or addition of transmission facilities needed for the transactions referred to in subparagraph (a) of this paragraph it shall be the responsibility of the entity(ies) seeking the transaction to participate in obtaining such approvals, including sharing in the cost thereof.
- (6) To increase the possibility of achieving greater reliability and economy of electric generation and transmission facilities, the licensee will discuss load projections and system development plans with any neighboring entity(ies).
  - (7) When the licensee's plans for future nuclear generating units (for which application will hereafter be made to the Nuclear Regulatory Commission) have reached the stage of serious planning, but before firm decisions have been made as to the size and desired completion date of the proposed nuclear units, the licensee will notify all neighboring entities including distribution systems with peak loads smaller than the licensee's that the licensee plans to construct such nuclear units. Neither the timing nor the information

provided need be such as to jeopardize obtaining the required site at the lowest possible cost.

- (8) The foregoing commitments shall be implemented in a manner consistent with the provisions of the Federal Power Act and all other lawful local, state and Federal regulation and authority. Nothing in these commitments is intended to determine in advance the resolution of issues which are properly raised at the Federal Energy Regulatory Commission concerning such commitments, including allocation of costs or the rates to be charged. The licensee will negotiate (including the execution of a contingent statement of intent) with respect to the foregoing commitments with any neighboring entity including distribution systems where applicable engaging in or proposing to engage in bulk power supply transactions, but the licensee shall not be required to enter into any final arrangement prior to resolution of any substantial questions as to the lawful authority of an entity to engage in the transactions.

In addition, the licensee shall not be obligated to enter into a given bulk power supply transaction if: (1) to do so would violate, or incapacitate it from performing, any existing lawful contracts it has with a third party; (2) there is contemporaneously available to it a competing or alternative arrangement which affords it greater benefits which would be mutually exclusive of such arrangement; (3) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (4) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

- K. The licensee is authorized to receive from the Oconee Nuclear Station, Units 1, 2, and 3, possess, and store irradiated Oconee fuel assemblies containing special nuclear material, enriched to not more than 3.24% by weight U-235 subject to the following conditions:
- a. Oconee fuel assemblies may not be placed in the McGuire Nuclear Station, Unit 1 and 2, reactors.
  - b. Irradiated fuel shipped to McGuire Nuclear Station, Units 1 and 2, from Oconee shall have been removed from the Oconee reactor no less than 270 days prior to shipment.
  - c. No more than 300 Oconee irradiated fuel assemblies shall be received for storage at McGuire Nuclear Station
  - d. Burnup of Oconee fuel shipped shall be no greater than 36,000 MW days per metric ton.
  - e. Receipt of irradiated Oconee fuel shall be limited by the use of the NFS-4 (NAC-1), NLI-1/2, TN-8, or TN-8L spent fuel casks.
  - f. The spent fuel pool crane travel shall be restricted by administrative controls to the paths required by Selected Licensee Commitment 16.9.20 whenever a spent fuel cask is being handled.

- g. Oconee fuel assemblies may not be transferred from one McGuire spent fuel pool to the other.
- L. This license is effective as of the date of issuance and shall expire at midnight on June 12, 2021.

FOR THE NUCLEAR REGULATORY COMMISSION

EDSON G. CASE for

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Attachment:

- 1. Appendix A -  
    Technical Specifications
- 2. Appendix B -  
    Deleted - Amendment No. 164
- 3. Appendix C -  
    Additional Conditions

Date of Issuance: June 12, 1981

APPENDIX C

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-9

Duke Energy Corporation shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Conditions	Implementation Date
184	<p>The schedule for the performance of new and revised surveillance requirements shall be as follows:</p> <p>For surveillance requirements (SRs) that are new in Amendment No. 184 the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment No. 184. For SRs that existed prior to Amendment No. 184, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment No. 184. For SRs that existed prior to Amendment No. 184, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of Amendment No. 184.</p>	Within 90 days of the date of this amendment.
188	<p>The maximum rod average burnup for any rod shall be limited to 60 GWd/mtU until the completion of an NRC environmental assessment supporting an increased limit.</p>	Within 30 days of date of amendment.

Attachment 2b

McGuire Unit 2 Facility Operating License

Remove these pages:

Pages 1 through 8a

Attachment 1

Appendix C

Appendix D

Insert these pages:

Pages 1 through 5

Appendix C

Appendix D

DUKE ENERGY CORPORATION  
DOCKET NO. 50-370  
MCGUIRE NUCLEAR STATION, UNIT 2  
FACILITY OPERATING LICENSE

LICENSE NO. NPF-17

1. The Nuclear Regulatory Commission (the Commission or the NRC ) has found that:
  - A. The application for license filed by the Duke Energy Corporation (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the McGuire Nuclear Station, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-84 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 (except as exempted from compliance in Section 2.D. below);
  - E. The licensee is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
  - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-17 is in accordance with 10 CFR Part 51, of the Commission's regulations and all applicable requirements have been satisfied;

- I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings and the Initial Decisions issued by the Atomic Safety and Licensing Board dated April 18, 1979, and May 26, 1981, and the Decision of the Atomic Safety and Licensing Appeal Board dated March 30, 1982, regarding this facility, Facility Operating License No. NPF-17 is hereby issued to the Duke Energy Corporation (the licensee) to read as follows:
  - A. This license applies to the McGuire Nuclear Station, Unit 2, a pressurized water reactor and associated equipment (the facility) owned by the Duke Energy Corporation (licensee). The facility is located on the licensees' site in Mecklenburg County, North Carolina, on the shore of Lake Norman approximately 17 miles northwest of Charlotte, North Carolina and is described in Duke Energy Corporation's "Final Safety Analysis Report," as supplemented and amended through Revision No. 45, and in its Environmental Report, as supplemented and amended through Revision No. 6;
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Corporation:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Mecklenburg County, North Carolina, in accordance with the procedures and limitations set forth in this license;
    - (2) Pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended through Revision No. 45;
    - (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
    - (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 byproduct 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 Energy Corporation Training and Technology Center.

C. This 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. are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Antitrust Conditions

The licensee shall comply with the antitrust conditions delineated in Appendix C to this license;

(4) Deleted

(5) Deleted

(6) Deleted

(7) Fire Protection Program

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility and as approved in the SER dated March 1978 and Supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(8) Deleted

(9) Deleted

(10) Deleted

(11) Deleted

(12) Deleted

(13) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. [REDACTED], are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

D. Deleted

E. Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved nuclear security and contingency, guard training and qualification plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plan, which contains safeguards information protected under 10 CFR 73.21, is entitled: "Nuclear Security and Contingency Plan," Revision 0. The plan which does not contain safeguards information is entitled, "Nuclear Security Training and Qualification Plan", Revision 0. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. Deleted

G. Deleted

H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims;

I. In accordance with the Commission's direction in its Statement of Policy, Licensing and Regulatory Policy and Procedures for Environmental Protection; Uranium Fuel Cycle Impacts, October 29, 1982, this license is subject to the final resolution of the pending litigation involving Table S-3. See, Natural Resources Defense Council v. NRC, No. 74-1586 (D.C. cir. April 27, 1982); and

J. The licensee is authorized to receive from the Oconee Nuclear Station, Units 1, 2 and 3, possess, and store irradiated Oconee fuel assemblies containing special nuclear material, enriched to not more than 3.24% by weight U-235 subject to the following conditions:

- a. Oconee fuel assemblies may not be placed in the McGuire Nuclear Station, Units 1 and 2, reactors.
- b. Irradiated fuel shipped to McGuire Nuclear Station, Units 1 and 2, from Oconee shall have been removed from the Oconee reactor no less than 270 days prior to shipment.
- c. No more than 300 Oconee irradiated fuel assemblies shall be received for storage at McGuire Nuclear Station.

- d. Burnup of Oconee fuel shipped shall be no greater than 36,000 MW days per metric ton.
  - e. Receipt of irradiated Oconee fuel shall be limited by the use of the NFS-4 (NAC-1), NLI-1/2, TN-8, or TN-8L spent fuel casks.
  - f. The spent fuel pool crane travel shall be restricted by administrative controls to the paths required by Selected Licensee Commitment 16.9.20 whenever a spent fuel cask is being handled.
  - g. Oconee fuel assemblies may not be transferred from one McGuire spent fuel pool to the other.
- K. This license is effective as of the date of issuance and shall expire at midnight on March 3, 2023.

FOR THE NUCLEAR REGULATORY COMMISSION

DARRELL EISENHUT for

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Attachment 1  
Deleted
2. Appendix A  
Technical Specifications
3. Appendix B  
Deleted (by Amendment No. 146)
4. Appendix C  
Antitrust Conditions
5. Appendix D  
Additional Conditions

Date of Issuance: March 3, 1983

## Appendix C

### Antitrust Conditions

Pursuant to an Order by the Atomic Safety and Licensing Board, dated April 23, 1975, the Nuclear Regulatory Commission incorporates in Operating License NPF-17 the following antitrust conditions:

- a. The licensee makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the desirability of participating in the transaction. Accordingly, the licensee will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to the licensee. There are net benefits in a transaction if the licensee recovers the cost of the transaction (as defined in subparagraph (1)(d) hereof) and there is no demonstrable net detriment to the licensee arising from the transaction.

(1) As used herein:

- (a) "Bulk Power" means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.
- (b) "Neighboring Entity" means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of the following criteria: (1) its existing or proposed facilities are economically and technically feasible of interconnection with those of the licensee and (2) with the exception of municipalities, cooperatives, governmental agencies or authorities, and associations, it is, or upon commencement of operations will be, a public utility and subject to regulation with respect to rates and service under the laws of North Carolina or South Carolina or under the Federal Power Act; provided, however, that as to associations, each member of such association is either a public utility as discussed in this clause (2) or a municipality, a cooperative or a governmental agency or authority.
- (c) Where the phrase "neighboring entity" is intended to include entities engaging or proposing to engage only in the distribution of electricity, this is indicated by adding the phrase "including distribution systems."
- (d) "Cost" means any appropriate operating and maintenance expenses, together with all other costs, including a reasonable return on the licensee's investment, which are

reasonably allocable to a transaction. However, no value shall be included for loss of revenues due to the loss of any wholesale or retail customer as a result of any transaction hereafter described.

- (2) (a) The licensee will interconnect and coordinate reserves by means of the sale and exchange of emergency and scheduled maintenance bulk power with any neighboring entity(ies), when there are net benefits to each party, on terms that will provide for all of the licensee's properly assignable costs as may be determined by the Federal Energy Regulatory Commission and consistent with such cost assignment will allow the other party the fullest possible benefits of such coordination.
  - (b) Emergency service and/or scheduled maintenance service to be provided by each party will be furnished to the fullest extent available from the supplying party and desired by the party in need. The licensee and each party will provide to the other emergency service and/or scheduled maintenance service if and when available from its own generation and, in accordance with recognized industry practice, from generation of others to the extent it can do so without impairing service to its customers, including other electric systems to whom it has firm commitments.
  - (c) Each party to a reserve coordination arrangement will establish its own reserve criteria, but in no event shall the minimum installed reserve on each system be less than 15%, calculated as a percentage of estimated peak load responsibility. Either party, if it has, or has firmly planned, installed reserves in excess of the amount called for by its own reserve criterion, will offer any such excess as may in fact be available at the time for which it is sought and for such period as the selling party shall determine for purchase in accordance with reasonable industry practice by the other party to meet such other party's own reserve requirements. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other part(ies) in meeting the normal contingencies of operating its (their) system(s). However, in no circumstances shall such spinning reserve requirement exceed the installed reserve requirement.
  - (d) Interconnections will be limited to low voltages when higher voltages are available from the licensee's installed facilities in the area where interconnection is desired and when the proposed arrangement is found to be technically and economically feasible.
  - (e) Interconnection and reserve coordination agreements will not embody provisions which impose limitations upon the use or resale of power and energy sold or exchanged pursuant to the agreement. Further, such arrangements will not prohibit the participants from entering into other interconnection and coordination arrangements, but may include appropriate provisions to assure that (i) the licensee receives adequate notice of such additional interconnection or coordination, (ii) the parties will jointly consider and agree upon such measures, if any, as are reasonably necessary to protect the reliability of the interconnected systems and to prevent undue burdens from being imposed on any system, and (iii) the licensee will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.
- (3) The licensee currently has on file, and may hereafter file, with the Federal Energy Regulatory Commission contracts with neighboring entity(ies) providing for the sale and exchange of

short-term power and energy, limited term power and energy, economy energy, non-displacement energy, and emergency capacity and energy. The licensee will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable the licensee to recover the full costs allocable to such transaction.

- (4) The licensee currently sells capacity and energy in bulk on a full requirements basis to several entities engaging in the distribution of electric power at retail. In addition, the licensee supplies electricity directly to ultimate users in a number of municipalities. Should any such entity(ies) or municipality(ies) desire to become a neighboring entity as defined in subparagraph (1)(b) hereof (either alone or through combination with others), the licensee will assist in facilitating the necessary transition through the sale of partial requirements firm power and energy to the extent that, except for such transition, the licensee would otherwise be supplying firm power and energy. The provision of such firm partial requirements service shall be under such rates, terms and conditions as shall be found by the Federal Energy Regulatory commission to provide for the recovery of the licensee's cost. The licensee will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by the licensee when such municipality lawfully engages in the distribution of electric power at retail.
- (5) (a) The licensee will facilitate the exchange of electric power in bulk in wholesale transactions over its transmission facilities (1) between or among two or more neighboring entities including distribution systems with which it is interconnected or may be interconnected in the future, and (2) between any such entity(ies) and any other electric system engaging in bulk power supply between whose facilities the licensee's transmission lines and other transmission lines would form a continuous electric path, provided that permission to utilize such other transmission lines has been obtained. Such transaction shall be undertaken provided that the particular transaction reasonably can be accommodated by the licensee's transmission system from a functional and technical standpoint and does not constitute the wheeling of power to a retail customer. Such transmission shall be on terms that fully compensate the licensee for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements.
- (b) The licensee will include in its planning and construction program sufficient transmission capacity as required for the transactions referred to in subparagraph (a) of this paragraph, provided that (1) the neighboring entity(ies) gives the licensee sufficient advance notice as may be necessary reasonably to accommodate its (their) requirements from a functional and technical standpoint and (2) that such entity(ies) fully compensate the licensee for its cost. In carrying out this subparagraph (b), however, the licensee shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to the licensee, or (b) which could be constructed by the requesting entity(ies) without duplicating any portion of the licensee's existing transmission lines, or (c) which would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements. Where regulatory or environmental approvals are required for the construction or addition of transmission facilities needed for the transactions referred to in subparagraph (a) of this paragraph it shall be the responsibility of the entity(ies) seeking the transaction to participate in obtaining such approvals, including sharing in the cost thereof.

- (6) To increase the possibility of achieving greater reliability and economy of electric generation and transmission facilities, the licensee will discuss load projections and system development plans with any neighboring entity(ies).
- (7) When the licensee's plans for future nuclear generating units (for which application will hereafter be made to the Nuclear Regulatory Commission) have reached the stage of serious planning, but before firm decisions have been made as to the size and desired completion date of the proposed nuclear units, the licensee will notify all neighboring entities including distribution systems with peak loads smaller than the licensee's that the licensee plans to construct such nuclear units. Neither the timing nor the information provided need be such as to jeopardize obtaining the required site at the lowest possible cost.
- (8) The foregoing commitments shall be implemented in a manner consistent with the provisions of the Federal Power Act and all other lawful local, state and Federal regulation and authority. Nothing in these commitments is intended to determine in advance the resolution of issues which are properly raised at the Federal Energy Regulatory Commission concerning such commitments, including allocation of costs or the rates to be charged. The licensee will negotiate (including the execution of a contingent statement of intent) with respect to the foregoing commitments with any neighboring entity including distribution systems where applicable engaging in or proposing to engage in bulk power supply transactions, but the licensee shall not be required to enter into any final arrangement prior to resolution of any substantial questions as to the lawful authority of an entity to engage in the transactions.

In addition, the licensee shall not be obligated to enter into a given bulk power supply transaction if: (1) to do so would violate, or incapacitate it from performing, any existing lawful contracts it has with a third party; (2) there is contemporaneously available to it a competing or alternative arrangement which affords it greater benefits which would be mutually exclusive of such arrangement; (3) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (4) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

APPENDIX D

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-17

Duke Energy Corporation shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Conditions	Implementation Date
166	<p>The schedule for the performance of new and revised surveillance requirements shall be as follows:</p> <p>For surveillance requirements (SRs) that are new in Amendment No. 166 the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment No. 166. For SRs that existed prior to Amendment No. 166, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment No. 166. For SRs that existed prior to Amendment No. 166, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of Amendment No. 166.</p>	Within 90 days of the date of this amendment.
169	<p>The maximum rod average burnup for any rod shall be limited to 60 GWd/mtU until the completion of an NRC environmental assessment supporting an increased limit.</p>	Within 30 days of date of amendment.

### **Attachment 3**

## **Description of Proposed Changes and Technical Justification**

### **I. Background**

McGuire Nuclear Station's FOLs consist of two sections and two appendices for Unit 1 (License No. NPF-9, Docket No. 369) and two sections, one attachment and three appendices for Unit 2 (License No. NPF-17, Docket No. 370). The McGuire Unit 1 FOL became effective on June 12, 1981, and the Unit 2 FOL became effective on March 3, 1983.

Section one of the Facility Operating License provides the findings of fact and law that form the basis of the Commission's granting of a license. In summary, these findings state that the facility was constructed in conformance with appropriate regulatory requirements and that the facility will operate in conformance with such requirements. The Commission also finds that the issuance of the license will not be inimical to public health and safety.

Section two of the Facility Operating License provides the language granting the license for the facility including conditions and requirements incorporated therein.

At the time of initial licensing of McGuire Nuclear Station, Duke Energy Corporation was required to demonstrate satisfactory compliance with applicable NRC requirements. The NRC also imposed additional Conditions (specific requirements), that McGuire was required to meet to obtain a license. Issuance of the McGuire FOLs was conditioned on Duke's compliance with these requirements, and these conditions were stated within (and became part of) the FOLs. In general, License Conditions addressed items that currently were of interest to the NRC. Typical License Conditions specify that the licensee (Duke) was to take some actions, such as performing tests or analyses, making future submittals, or increasing awareness or attention to an identified aspect of plant operations.

Typical License Conditions are required actions to be taken within a specified period of time, or are contingent on the completion of a future action(s) by the licensee based on the occurrence of a subsequent event or operating condition. Some License Conditions are outdated because they are nullified by changed regulatory requirements or by implementation of new programs or policies by the licensee. Consequently, over time,

many licensee conditions are no longer relevant or applicable to a plant. Duke has determined that numerous License Conditions and other items contained in the original FOLs for McGuire have been met, or are otherwise no longer applicable. Therefore, Duke is proposing this license amendment to update the FOLs to reflect those changes.

## **II. Summary of Proposed Changes**

The proposed changes contained in this LAR are itemized below.

This LAR deletes License Conditions that currently remain in the McGuire Unit 1 FOL; these include: Sections 2.C.(3), 2.C.(5), 2.C.(6), 2.C.(7), 2.C.(8), 2.C.(9), 2.C.(10), 2.C.(11), 2.C.(12), 2.D, 2.G and 2.H. The LAR revises Sections 1.H, 2.C.(1), 2.C.(4), 2.C.(13), 2.E, 2.K.(f), and Appendix C.

This LAR deletes License Conditions that currently remain in the McGuire Unit 2 FOL; these include: Sections 2.C.(4), 2.C.(5), 2.C.(6), 2.C.(8), 2.C.(9), 2.C.(10), 2.C.(11), 2.C.(12), 2.D, 2.F, 2.G and Attachment 1. The LAR revises Sections 2.H, 2.C.(1), 2.C.(7), 2.C.(13), 2.E, 2.J.(f) and Appendix D.

## **III. Discussion**

Duke Energy Corporation proposes elimination of the License Conditions listed above. A detailed description of each change and the appropriate justification is provided in the following text.

The License Conditions and sections are listed below as they currently appear in the FOLs. Each item is identified by the numerical designation that was assigned in the original FOL.

The justification for deleting the specific License Conditions was developed by referencing previous correspondence on the appropriate NRC docket and some other generic NRC regulatory guidance. The appropriate citations are provided in the justification section for each change. Throughout the following discussion, NUREG-0422, "Safety Evaluation Report Related to the Operation of McGuire Nuclear Station, Unit 1 and 2" and Supplements will be referred to as the Safety Evaluation Report (SER), referencing the applicable supplement number. In addition, The Nuclear Regulatory Commission staff is referred to as either "the staff" or "NRC staff." Reference to the Commission is in reference to an actual NRC Commission letter as opposed to staff action. The current licensee of this facility

is Duke Energy Corporation and is referred to in this document as Duke, Duke Energy, Duke Power or McGuire.

## **Unit 1 Facility Operating License NPF-9, Docket No. 369**

### **Section 1.H states:**

H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-17, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as appendix B, is in accordance with 10 CFR part 51, of the Commission's regulations and all applicable requirements have been satisfied;

**Proposed Change:** FOL Section 1.H is being changed to eliminate the reference to the Environmental Protection Plan.

**Justification for Change:** The Environmental Protection Plan (formally Appendix B to the Technical Specifications) was deleted by approved License Amendment 164<sup>1</sup>. The elimination of this reference was approved for Duke's Catawba Nuclear Station by approved License Amendment 164/156<sup>2</sup>.

### **Section 2.C (1) states:**

#### Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% power)

**Proposed Change:** FOL Section 2.C (1) is being changed to state that the maximum authorized power level is a reactor core "full steady state power level of 3411 megawatts thermal (100%)."

**Justification for Change:** This change is intended to provide clarification as to when Duke would report a power level >100% as specified in the FOL Section 2.C (1). Duke administrative controls define steady state so as to clarify when reporting is required. NRC Inspection Procedure 61706, "Core Thermal Power Evaluation," associates maximum thermal power with "steady-

<sup>1</sup> February 5, 1996, Victor Nerses to Mr. M. S. Tuckman, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC Nos. M90860 and M90861).

<sup>2</sup> April 23, 1998, Peter S. Tam to Mr. Gary R. Peterson, Issuance of Amendments - Catawba Nuclear Station, Units 1 and 2 (TAC Nos. MA0359 and MA0360).

state". This change would bring McGuire's FOLs in line with the wording used in most FOLs (see Table 1 to NRCs SER for Catawba's approved License Amendment 164/156<sup>2</sup>) and would permit use of the staff's guidance cited above.

**Section 2.C.3, Initial Test Program states:**

The licensee shall conduct the initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended) without making any modifications to this program unless such modifications are in accordance with the provisions of 10 CFR Section 50.59. In addition, the licensee shall not make any major modifications to this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended;
- b. Modification of test objectives, methods or acceptance criteria for any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended;
- c. Performance of any test at a power level different from that described in the program, as limited by this license authorization; and
- d. Failure to complete any tests included in the described program (planned or scheduled) for power levels up to the authorized power level.

**Proposed Change:** Delete License Condition 2.C.3.

**Justification for Deletion:** This License Condition has been met. The McGuire Unit 1 Initial Test Program was documented in the McGuire Unit 1 Startup Report submitted to the NRC by Duke letter<sup>3</sup>. The completion of the McGuire Unit 1 Startup Test Program was documented by Duke letter<sup>4</sup>.

**Section 2.C.4, Fire Protection Program, states:**

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility through the 1989 annual FSAR update and as approved

---

<sup>3</sup> March 10, 1982, William O. Parker, Jr. to Mr. James P. O'Reilly, McGuire Nuclear Station, Unit 1, Docket No. 50-369, Startup Report.

<sup>4</sup> November 29, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Startup Test Program.

in the SER dated March 1978 and supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- a. Duke shall implement a Standby Shutdown Facility System to assure shutdown capability during certain postulated fire events as indicated in Duke's letter, dated January 31, 1979. All required changes shall be completed three months after the first refueling of Unit 1, but not later than 24 months after initial fuel loading of Unit 1.
- b. Duke shall perform required modifications to the oil collection system and fire suppression system for the Reactor Coolant Pump (RCP) motor within three months after the first refueling of Unit 1, but not later than 24 months after initial fuel loading of Unit 1.

Prior to commercial operation the licensee shall complete to the satisfaction of the office of Inspection and Enforcement all required fire protection items identified in Table 9.5-1 and Appendix B of Supplement 5 to the Safety Evaluation Report (NUREG-0422).

**Proposed Change:** Paragraph 1 - Reference to the FSAR "through the 1989 annual FSAR update" is being deleted. Items (4)a, (4)b and paragraph 4 are being deleted.

**Justification for Change/Deletion:** This proposed change removes the reference to a specific revision to the UFSAR. The proposed change eliminates the need to request administrative license amendments to change references to revision/update/supplement numbers. Separate regulations require Duke to maintain the UFSAR up to date and submitted to the NRC on a periodic basis (10 CFR 50.71(e)). The frequency of Duke's reporting requirement was relaxed by an exemption issued by NRC letter<sup>5</sup>.

Item (a) has been met. In Supplement No. 2 to the SER, the NRC staff required submittal of the final design of the standby shutdown system for approval by March 1980 and that the system be fully operational as required in the reference License Condition. McGuire provided the final design of the system and

---

<sup>5</sup> June 10, 1997, Herbert N. Berkow to Mr. M. S. Tuckman, Issuance of Exemption to 10 CFR 50.71 (e)(4), Catawba and McGuire Nuclear Stations (TAC M98043m M98044, M98100 and M98101).

completed the system installation, which was made operational in January 1983. The staff reviewed the standby shutdown system for Units 1 and 2 in accordance with the criteria for alternate shutdown capability contained in 10 CFR 50, Appendix R. On the basis of this review, the staff concluded that the performance goals for accomplishing safe shutdown in the event of a fire, reactivity control, inventory control, decay heat removal, pressure control and support functions were met by the system and acceptable. The staff also required that the system include source-range neutron flux and wide-range cold-leg reactor coolant system temperature instrumentation and conditioned the Unit 2 operating license accordingly (2.C.(7)(c)). This instrumentation is available for both Unit 1 and Unit 2. The staff concluded that McGuire Nuclear Station, including the standby shutdown system, met the requirements of 10 CFR 50, Appendix R, Paragraphs III.G and III.L. This conclusion was documented in Safety Evaluation Report, Supplement No. 6.

Item (b) has been met. As documented in Safety Evaluation Report, Supplement No. 6, Section 9.5.1, Fire Protection System, the staff concluded that Sections III.G, III.J and III.O of Appendix R to 10 CFR 50 were satisfied in all areas of the plant.

Paragraph 4 - This portion of the License Condition has been met. Installation of the items identified in Table 9.5-1 were required prior to initial fuel loading or prior to commercial operation. In Safety Evaluation Report, Supplement No. 5, the staff summarized its review of the fire protection program. The staff found the program adequate, and with the scheduled standby shutdown system, met the guidelines contained in Appendix A to Branch Technical Position 9.5-1 and General Design Criterion 3. The review recognized that interim measures would be required until the standby shutdown facility became operational. As noted in item (a) above, the standby shutdown system became operational in January 1983.

**Section 2.C.5, Compliance With Regulatory Guide 1.97 states:**

In accordance with the schedule submitted by the licensee, or as directed by the Commission, the licensee shall implement modifications necessary to comply with Revision 2 of Regulatory Guide 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," dated December 1980 as modified by the licensee's commitments to NUREG-0588 and NUREG-0737.

**Proposed Change:** Delete License Condition 2.C.5.

**Justification for Deletion:** This License Condition has been met. Regulatory Guide 1.97 describes an acceptable method for complying with the requirements for providing instrumentation to monitor plant variables and systems during and following an accident in a light-water-cooled nuclear power plant. The McGuire Updated Final Safety Analysis Report (UFSAR) Section 1.11, "Regulatory Guide 1.97, Revision 2 - Review for McGuire Nuclear Station," documents the review of Regulatory Guide 1.97, Revision 2 for McGuire. This section of the UFSAR describes Duke Power Company's method of satisfying NUREG-0737 Supplement 1 (which references Regulatory Guide 1.97, Revision 2) for McGuire Nuclear Station. This UFSAR section describes Duke Power Company accident monitoring instrumentation position and provides a detailed comparison table as requested in Supplement 1 to NUREG-0737. This table contains information regarding the comparison of the particular variable with the recommendation of the Regulatory Guide. Instrument ranges, design, environmental qualification, type of display and position statements are provided for each variable named in Table 2, "PWR Variables," of Regulatory Guide 1.97, Revision 2.

The NRC staff and contractor, EG&G Idaho, Inc., review of the McGuire submittals<sup>6,7</sup> in response to Supplement 1 to NUREG-0737 (transmitted by Generic letter 82-33) is documented in a Safety Evaluation Report (SER) and contractor Technical Evaluation Report (TER) were issued by NRC letter<sup>8</sup>. The staff found that McGuire instrumentation either conformed to, or was justified in deviating from, the guidance of Regulatory Guide 1.97 for each post-accident monitoring variable with the exception of accumulator tank level and pressure, containment sump water temperature, and steam generator level.

The NRC staff later determined that the environmental qualification requirements for the accumulator level and pressure instrumentation could be relaxed from Regulatory Guide 1.97 Category 2 to Category 3 requirements enabling the use of commercial grade instruments in this application. This

---

<sup>6</sup> March 29, 1984, Hal B. Tucker to Mr. Harold R. Denton, Duke Power Company, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Revision 3 to the Duke Power Company Response to Supplement 1 to NUREG-0737 for McGuire Nuclear Station.

<sup>7</sup> April 14, 1986, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Duke's response to eight deviations from Regulatory Guide 1.97.

<sup>8</sup> March 23, 1987, B. J. Youngblood to Mr. H. B. Tucker, Post-Accident Monitoring Instrumentation - McGuire Nuclear Station, Units 1 and 2.

conclusion is documented in a Safety Evaluation Report issued by the NRC<sup>9</sup>.

The staff determined that steam generator level range of span should indicate at least from the top of the tube sheet to separators to indicate integrity of the secondary system and the capability of decay heat removal. By letter<sup>10</sup>, Duke documented plans to install and make operational this instrumentation during the end of Cycle 5 refueling outages for each McGuire unit. Nuclear Station Modification 12061 (Unit 1) was implemented on December 5, 1988. Nuclear Station Modification 22061 was completed on July 28, 1989. These modifications provided four environmentally and seismically qualified transmitters for steam generator wide range levels.

UFSAR Table 1-6 (Page 51 of 69), Regulatory Guide 1.97, Revision 2 Review addresses containment sump water temperature. This section of the UFSAR states that for the McGuire design, this variable is not utilized in the management of a design basis accident and therefore is not provided. By letter<sup>11</sup>, the staff noted that no further plant-specific reviews were anticipated with regard to containment sump temperature instrumentation and that results of the generic review would be provided when available. This letter closed TACs M66188 and M66189.

**Section 2.C.6, Steam Generator Inspection states:**

Prior to start-up after the first refueling, the licensee shall install inspection ports in each steam generator or have an acceptable alternative for inspection. This condition references item 5.3.1 in SER Supplement 4, NUREG-0422.

**Proposed Change:** Delete License Condition 2.C.6.

**Justification for Deletion:** This License Condition was withdrawn by the NRC. The original basis for requiring upper inspection ports was an NRC concern regarding early detection of a denting phenomenon associated with the type of support plate deformation known as "hourglassing." Since that time, detecting the onset of denting and associated support plate cracking and hourglassing of flow slots has progressed to the point where

---

<sup>9</sup> April 3, 1992, Timothy A. Reed to Mr. T. C. McMeekin, Conformance to Regulatory Guide 1.97 - McGuire Nuclear Station, Units 1 and 2 (TAC NOS. M66188/M66189).

<sup>10</sup> August 17, 1987, Hal B. Tucker to U. S. Nuclear Regulatory Commission, Document Control Desk, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Conformance to Regulatory Guide (RG) 1.97, Revision 2.

<sup>11</sup> April 3, 1992, Timothy A. Reed to Mr. T. C. McMeekin, Conformance to Regulatory Guide 1.97 - McGuire Nuclear Station, Units 1 and 2 (TAC NOS. M66188/M66189).

adequate alternative means of detection are available. The staff concluded that the installation of upper inspection ports in the McGuire Unit 1 and 2 steam generators was no longer necessary. This conclusion was documented in Safety Evaluation Report, Supplement No. 6.

**Section 2.C.7, Environmental Qualification states:**

The licensee shall take the following remedial actions, or alternative acceptable actions, with respect to the environmental qualification requirements for Class IE equipment (SSER #5\*7.8):

- (a) No later than June 30, 1982, all safety-related electrical equipment exposed to a harsh environment in the facility shall be qualified in accordance with the requirements of NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment"
- (b) Pursuant to SECY-80-370, dated August 6, 1980, complete and auditable records must be available and maintained at a central location which describes the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with NUREG-0588. Such records shall be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance no later than June 30, 1982.
- (c) Provide the NRC with a description of the required equipment qualification corrective action no later than July 15, 1981.

\*Reference is to the appropriate sections of the Safety Evaluation Report, Supplement No. 5 (NUREG-0422, April 1981)

**Proposed Change:** Delete License Condition 2.C.7

**Justification for Deletion:**

Item (a) - This License Condition has been met. With regard to 10 CFR 50.49(b)(1), safety-related electrical equipment located in a harsh environment is identified in Duke Power Company's updated response to NUREG-0588<sup>12</sup>.

---

<sup>12</sup> June 30, 1982, William O. Parker, Jr. to Mr Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated response to NUREG-0588.

Item (b) - This License Condition has been met. An auditable record of the McGuire 10CFR50.49/NUREG-0588 equipment is maintained in the Environmental Qualification Master list.

Item (c) - This License Condition has been met. McGuire provided the requested information in a letter<sup>13</sup>, which addressed equipment inside containment in accordance with Condition 2.C.(7)(c). Duke letter<sup>14</sup> contained information related to equipment located outside containment in potentially harsh environments, including high radiation and high energy line break (HELB) areas. The deletion of this License Condition eliminates the need for the associated footnote.

### **Section 2.C.8, "Radioactive Waste Treatment System"**

Prior to initial criticality, the licensee shall ensure the operability of radwaste systems to the satisfaction of the Office of Inspection and Enforcement including completion of testing of HEPA filters and charcoal absorbers associated with all ventilation systems.

**Proposed Change:** Delete License Condition 2.C.8.

**Justification for Deletion:** This License Condition has been met. The staff's evaluation of the radioactive waste management system designed to process liquid, gaseous, and solid radwastes is discussed in detail in the Safety Evaluation Report for McGuire dated March 1978. Safety Evaluation Report, Supplement No. 4, Section 11.0, documents the addition of additional storage capacity for liquids in the Radwaste Facility Subsystem Building, Contaminated Materials Warehouse subsystem building, and a binder storage tank and waste shipping pad to accommodate the solid radwaste solidification systems. The staff found that these changes met the acceptance criteria of Standard Review Plans 11.2, and 11.4, the guidelines of Regulatory Guide 1.143 and provided additional reserve capacity for processing surge flows and additional flexibility for the solid radwaste treatment system. This conclusion was documented in Safety Evaluation Report, Supplement No. 4 in Section 11.0.

---

<sup>13</sup> July 15, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Information in compliance with provisions of License No. NPF-9, Condition 2.C.(7)(c).

<sup>14</sup> August 17, 1981, William O. Parker Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Environmental Qualification of Equipment.

### **Section 2.C.9, "Piping System Reanalysis"**

The licensee shall provide the NRC with the results of its seismic system piping reanalysis within 90 days of the issuance of this license. (SSER #5-3.7.2)

**Proposed Change:** Delete License Condition 2.C.9.

**Justification for Deletion:** This License Condition has been met. This issue addressed a deviation from the Standard Review Plan (NUREG-0800) regarding the choice of correct spectra to be used for seismic design of piping systems. Safety Evaluation Report, Supplement No. 5 requested a reanalysis of 22 piping math models to supplement this justification. McGuire submitted the results of the reanalysis, using an approach specified in the Standard Review Plan. The results demonstrated the existing piping systems were designed conservatively and contained adequate safety margins. The NRC documented the satisfaction of this License Condition in Supplement No. 5 in Safety Evaluation Report, Supplement No. 6.

### **Section 2.C.10, "Category I Masonry Walls"**

Prior to startup following the first refueling or as directed by the Commission, the licensee shall evaluate all Category I Masonry Walls to final staff criteria and implement required modifications that are indicated by the evaluation.

**Proposed Change:** Delete License Condition 2.C.10.

**Justification for Deletion:** This License Condition has been met. A reanalysis program was carried out and resulted in commitments to implement certain structural modifications. The completion of the Unit 1 modifications was documented in Safety Evaluation Report, Supplement No. 5. By Duke letter<sup>15</sup>, Attachment 6, McGuire documented completion of the Unit 2 modifications. The NRC documented final satisfaction of this condition in Safety Evaluation Report, Supplement Nos. 5 and 6, Section 3.8.4.

### **Section 2.C.11, "NUREG-0737 Conditions"**

The licensee shall complete the following conditions to the satisfaction of the NRC. These conditions reference the appropriate items in Section 22.2, "Fuel-Loading and Low Power Testing Requirements", in SER Supplements 4 & 5, NUREG-0422.

---

<sup>15</sup> December 22, 1982, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Outstanding Information Responses.

(a) **Shift Technical Advisor** (I.A.1.1)

The licensee shall continue to provide a fully-trained on-shift technical advisor to the shift supervisor.

**Proposed Change:** Delete License Condition 2.C.(11)(a).

**Justification for Deletion:** This License Condition has been met. Safety Evaluation Report, Supplement No. 4 stated that Duke Power Company committed to a Shift Technical Advisor (STA) being on duty for each operating shift in accordance with staff guidelines. Supplement No. 4 indicated the staff's intent to evaluate the long-term program after receipt of additional information from McGuire. The additional information was submitted by Duke letter<sup>16</sup>. In SER Supplement No. 5, the staff concluded that qualification of the STAs as described in this submittal met the necessary training requirements.

Continued compliance with this License Condition is required by McGuire Technical Specification 5.2.2g. This Technical Specification states, "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 qualification for STA specified by the Commission Policy Statement on Engineering Expertise on Shift."

(b) **Independent Safety Engineering Group** (I.B.1.2)

The licensee shall continue to have an onsite Independent Safety Engineering Group.

**Proposed Change:** Delete License Condition 2.C.(11)(b).

**Justification for Deletion:** This License Condition has been met. The current commitment for maintaining compliance with 10 CFR 50.54a regarding an onsite Independent Safety Engineering Group is contained in the Duke Power Company QA Topical Report in Section 17.3.3.2.4.

---

<sup>16</sup> February 6, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Updated responses to the document "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

(c) **Operating Activities** (I.C.6)

Prior to exceeding 1% power the licensee shall provide adequate procedures to verify the correct performance of the licensee's operating activities. These procedures shall be maintained by the licensee.

**Proposed Change:** Delete License Condition 2.C.(11)(c).

**Justification for Deletion:** This License Condition has been met. Safety Evaluation Report, Supplement No. 6 documents this License Condition as complete. The SER references McGuire's letter<sup>17</sup>, "Duke Power Company, McGuire Nuclear Station, Response to TMI concerns."

(d) **Control Room Design** (I.D.1)

The licensee shall complete the following conditions to the satisfaction of the Commission prior to resuming power operation after the first refueling:

- (1) Controllers with revised scales (0 at top and 100% at bottom) shall be replaced and signal reversing relays shall be incorporated where applicable.
- (2) All applicable meter scales shall be permanently marked.
- (3) The licensee shall rescale circular displays for clarify and eliminate double ranges on circular displays.
- (4) Strip chart selector switches which can be placed in an intermediate (no-selection) position shall be replaced.
- (5) Appropriate modifications to the normal and emergency lighting systems shall be made to ensure adequate illumination of the control room under all operating conditions.

As a reference, these conditions are further described in supplement No. 4 to the SER (NUREG-0422), appendix D, Items 3b, 4a, 4f and 9b, respectively.

**Proposed Change:** Delete License Condition 2.C.11(d).

---

<sup>17</sup> June 18, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated responses to the document "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

**Justification for Deletion:** This License Condition has been met. Safety Evaluation Report, Supplement No. 6, documents this License Condition as complete. The Safety Evaluation Report references McGuire's letter<sup>18</sup>. The deletion of this License Condition eliminates the need for the associated footnote.

### **Condition**

The licensee shall complete each of the following conditions to the satisfaction of the NRC by the times indicated. Each of the following conditions references the appropriate item in Section 22.3, "Full-Power Requirements," In SER Supplement 5, NUREG-0422:

#### **a. NSSS Vendor Review Procedures (I.C.7)**

Prior to exceeding 5% power, the licensee shall document that the Westinghouse review of the power ascension test procedures is complete.

**Proposed Change:** Delete Item "a".

**Justification for Deletion:** This License Condition has been met. McGuire documented completion of the Westinghouse review of the applicable procedures by Duke letter<sup>19</sup>. The NRC documented verification of completion of all conditions of the McGuire license required for operation above 1% and 5% power via Inspection Report 50-369/81-23 and 50-370/81-11. The NRC further documented completion and acceptance in Safety Evaluation Report, Supplement No. 6.

#### **b. Training During Low-Power Testing (I.G.1)**

Prior to exceeding 5% power the licensee shall complete the required Special Tests and the low-power test training program. The results of the test program shall be provided to the NRC within 30 days.

**Proposed Change:** Delete Item "b".

---

<sup>18</sup> February 18, 1983, Hal. B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket No. 50-370, Responses and clarifications to NRC requested information.

<sup>19</sup> June 18, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated responses to the document "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

**Justification for Deletion:** This License Condition has been met. The NRC documented verification of completion of all conditions of the McGuire license required for operation above 1% and 5% power via Inspection Report 50-369/81-23 and 50-370/81-11. The NRC further documented completion and acceptance in Safety Evaluation Report, Supplement Nos. 5 and 6.

c. **Post Accident Sampling (II.B.3)**

The licensee shall install a high radiation sampling system for obtaining reactor coolant and containment atmosphere sampling under degraded core accident conditions without excessive exposure by January 1, 1982.

**Proposed Change:** Delete Item "c".

**Justification for Deletion:** This License Condition has been met. By letter<sup>20</sup>, McGuire documented the installation of a new post-accident sampling system. The NRC documented the acceptability and confirmed completion of this requirement in Safety Evaluation Report, Supplement Nos. 5 and 6.

d. **Training for Mitigating Core Damage (II.B.4)**

Prior to exceeding 5% power the licensee shall complete training for mitigating core damage.

**Proposed Change:** Delete Item "d".

**Justification for Deletion:** This License Condition has been met. By Duke letter<sup>21</sup>, McGuire documented the completion of a special training program for the mitigation of core damage. The NRC documented the completion of this requirement in Safety Evaluation Report, Supplement No. 6.

---

<sup>20</sup> June 18, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated responses to the document "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

<sup>21</sup> June 18, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated responses to the document "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

**e. Auxiliary Feedwater System Evaluation (II.E.1.1)**

Prior to exceeding 5% power the licensee shall complete performance testing of the auxiliary feedwater system pumps and shall submit a report within 30 days after all tests are completed.

**Proposed Change:** Delete Item "e".

**Justification for Deletion:** This License Condition has been met. Safety Evaluation Report, Supplement No. 5, Item 8.B.2 recommended performance of a 48-hour endurance test on all auxiliary feedwater pumps, if such a test or continuous period of operation had not been accomplished. McGuire documented by letter<sup>22</sup> that the motor-driven pumps were run several days during the hot functional test period. By Duke letter<sup>23</sup>, McGuire provided the results of the turbine driven auxiliary feedwater pump. The NRC documented the completion of this requirement in Safety Evaluation Report, Supplement No. 6.

**f. Inadequate Core Cooling Instruments (II.F.2)**

- (1) The licensee shall install a reactor vessel water level instrumentation system prior to startup after the first refueling.
- (2) Prior to exceeding 5% power the licensee shall install a full range in-core thermocouple temperature (2300 °F) backup display; and
- (3) The licensee shall upgrade the in-containment portion of the incore thermocouple system prior to startup following the first refueling outage, and shall provide a schedule for upgrade of the remainder of the system in the Regulatory Guide 1.97 Accident Monitoring Review Report submittal pursuant to NUREG-0737, Supplement 1.

**Proposed Change:** Delete Item "f".

**Justification for Deletion:** This License Condition has been met.

---

<sup>22</sup>September 18, 1980, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Discussion of Bulletins and Orders Task Force recommendations on Auxiliary Feedwater Systems as they apply to McGuire Nuclear Station.

<sup>23</sup>October 5, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Test of the turbine driven auxiliary feedwater pump.

Item (1): This portion of the License Condition has been met. By Duke letter<sup>24</sup>, Duke provided an Implementation Letter Report which stated that the Reactor Vessel Level Instrumentation System for Unit 1 had been installed, was functionally tested and calibrated under cold and hot conditions and that no performance deviations were identified. By Duke letter<sup>25</sup>, the staff issued a Safety Evaluation Report documenting acceptability of the installed RVLIS system and satisfaction of the License Condition.

Item (2): This portion of the License Condition has been met. The NRC inspected the installed full range in-core thermocouple display and found it adequate. This portion of the License Condition was closed in Inspection Report 50-369/81-23 and 50-370/81-11.

Item (3): This portion of the License Condition has been met. By letter<sup>26</sup>, the NRC issued a Safety Evaluation Report which concluded that McGuire's proposed final ICCI would be in compliance with Item II.F.2 requirements if Duke upgraded the existing ICCI, implemented revised EOPs and installed and calibrated the RVLIS for Unit 2. By Duke letter<sup>27</sup>, McGuire provided a status of the ICCI implementation milestones for McGuire. This letter documented the completion of the installation, functional testing and calibration of the ITS as well as the implementation of the revised EOPs. The NRC staff and NRC contractor from Oak Ridge National Laboratory met at McGuire to discuss Duke's experience with the ICCI systems. By letter<sup>28</sup>, the NRC staff documented the meeting as a post-implementation audit. The letter stated that the visit was not intended as an evaluation of conformance to the requirements of NUREG-0737, Item II.F.2. The audit did confirm that the ICCI system of McGuire Units 1 and 2 consisted of a Subcooling Margin Monitor (SMM), Reactor Vessel Level Instrumentation System (RVLIS), and Core Exit Thermocouples (CET) which were required by the NRC. Duke believes this satisfactorily demonstrates the

---

<sup>24</sup> May 16, 1984, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Inadequate Core Cooling Instrumentation.

<sup>25</sup> September 17, 1984, Thomas M. Novak to Mr. H. B. Tucker, Inadequate Core Cooling Instrumentation (McGuire Nuclear Station, Units 1 and 2).

<sup>26</sup> September 17, 1984, Thomas M. Novak to Mr. H. B. Tucker, Inadequate Core Cooling Instrumentation (McGuire Nuclear Station, Units 1 and 2).

<sup>27</sup> June 25, 1985, Hal B. Tucker to Dr. J. Nelson Grace, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Status of ICCI Implementation Milestones.

<sup>28</sup> May 27, 1988, Darl Hood to Duke Power Company, Summary of April 28, 1988 Meeting on Inadequate Core Cooling Instrumentation Systems (TACS 67755 and 67756).

NRC staffs satisfaction on the installation and completion of this License Condition.

**g. Anticipatory Reactor Trip (II.K.3.10)**

Prior to exceeding 50% power the licensee shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

**Proposed Change:** Delete Item "g".

**Justification for Deletion:** This License Condition has been met. Testing was performed and the results reported in the McGuire Startup Report submitted to the NRC by Duke letter<sup>29</sup>. After review of the Startup Report, the NRC concluded that the test was not conducted as a turbine trip test but rather as a reduction of load on the turbine generator which was not as severe a transient on the reactor coolant system as was intended. By letter<sup>30</sup>, Duke provided additional details regarding the actual test conditions. By Duke letter<sup>31</sup>, Duke provided additional information stating a loss of electrical load test satisfied this License Condition. By letter<sup>32</sup>, the NRC issued an SER which concluded that McGuire had effectively simulated the required turbine trip test from 48% rated power, and had satisfied the requirements of License Condition 2.C.(11)g.

**Condition:**

The licensee shall complete the following conditions to the satisfaction of the staff by the times indicated. These conditions reference the appropriate item in Section 22.4, "NRC Actions" in SER Supplement 5, NUREG-0422:

**h. Hydrogen Control Measures (II.B.7)**

- (1) Prior to startup following the first refueling outage, the Commission must confirm that an adequate hydrogen control system for the plant is installed and will

---

<sup>29</sup> March 10, 1982, William O. Parker, Jr. to Mr. James P. O'Reilly, McGuire Nuclear Station, Unit 1, Docket No. 50-369, Startup Report.

<sup>30</sup> February 22, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Revised description of test method per License Condition 2.C.(11)g.

<sup>31</sup> May 5, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Loss of electrical load test per License Condition 2.C.(11)g.

<sup>32</sup> May 17, 1983, Thomas M. Novak to Mr. Hal B. Tucker, OL Condition 2.C.(11)g, Anticipatory Reactor Trip (II.K.3.10) (McGuire Nuclear Station, Unit 1).

perform its intended function in a manner that provides adequate safety margins.

- (2) During the interim period of operation, the licensee shall continue a research program on hydrogen control measures and the effects of hydrogen burns on safety functions and shall submit to the NRC quarterly reports on the research program.
  - (a) The first quarterly report shall contain a detailed description of the Duke Power Company's program which shall generally conform to pertinent portions of the program outlined in "Research on Hydrogen Combustion and Control Quarterly Report", Tennessee Valley Authority, Sequoyah Nuclear Plant, December 15, 1981, but which shall also include, [but not be limited to] the following items:
    - 1) Improved calculational methods for containment temperature and ice condenser response to hydrogen combustion.
    - 2) Research to address the potential for local detonation.
    - 3) Confirmatory tests on selected equipment exposed to hydrogen burns.
    - 4) New calculations to predict differences between expected equipment temperature environments and containment temperature.
    - 5) Evaluate and resolve any anomalous results occurring during the course of its ongoing test program.
  - (b) The results of these investigations will be provided to the staff for review in October 1981. A schedule for confirmatory tests beyond this date will be provided consistent with the requirement to meet the January 31, 1982 deadline, Section (11)h(1) of the license.
- (3) Operation of the hydrogen igniter system shall be activated upon a safety injection signal with accompanying indications of a loss of coolant accident.

The licensee shall complete each of the following conditions to the satisfaction of the NRC by the times indicated. Each of the following conditions references the appropriate item in Section 22.5, "Dated Requirements" in SER supplement 5, NUREG-0422:

**Proposed Change:** Delete Item "h".

**Justification for Deletion:** This License Condition has been met. By Duke letter<sup>33</sup>, McGuire submitted a report entitled "An Analysis of Hydrogen Control Measures at McGuire Nuclear Station" dated October, 1981. This report was submitted in accordance with License Condition 2.C.(11)h. By letter<sup>34</sup>, the staff issued a Safety Evaluation, "Closure of the Hydrogen Control Issue Pursuant to 10 CFR 50.44 for Catawba and McGuire Nuclear Stations. The NRC staff concluded that the provisions of 10 CFR 50.44 had been acceptably responded to for both Catawba and McGuire.

**i. Reactor Coolant System Vents (II.B.1)**

Prior to exceeding 1% power the licensee shall provide information on procedures and testing including measures to preclude inadvertent operation;

**Proposed Change:** Delete License Condition 2.C.(11).i.

**Justification for Deletion:** This License Condition has been met. By letters<sup>35, 36</sup>, McGuire provided conceptual design information for installation of reactor coolant system vents. The NRC documented a preliminary review and evaluation of this design in Safety Evaluation Report, Supplement No. 4, Section 22.3. This supplement contained a provisional acceptance pending additional evaluation by the NRC staff. McGuire notified the NRC of the actual installation for McGuire Units 1 & 2 by letter<sup>37</sup>. In a Duke letter<sup>38</sup>, McGuire provided information regarding procedures and testing. The NRC concluded that McGuire satisfied this License Condition in Safety Evaluation Report, Supplement No. 6.

---

<sup>33</sup> October 30, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Submittal of report "An Analysis of Hydrogen Control Measures at McGuire Nuclear Station."

<sup>34</sup> May 26, 1993, David B. Matthews to Mr. Hal B. Tucker, Safety Evaluation - Closure of the Hydrogen Control Issue Pursuant to 10 CFR 50.44 for Catawba and McGuire Nuclear Stations, (TAC Nos. M53034, M63035, M52032, M63033).

<sup>35</sup> May 23, 1980, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Response to TMI Concerns.

<sup>36</sup> September 8, 1980, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Updated response to "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

<sup>37</sup> February 6, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Updated response to "Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns."

<sup>38</sup> August 26, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Procedure for "Venting of Non-Condensable Gases from the Reactor Vessel Head."

**j. Relief and Safety Valve Tests (II.D.1)**

Prior to July 1, 1982, the licensee shall provide documentation for relief valves, safety valves and associated piping in accordance with the EPRI December 15, 1980 letter as approved by the NRC and shall qualify block valves by July 1, 1982, and shall submit a report demonstrating said qualification;

**Proposed Change:** Delete License Condition 2.C.(11).j.

**Justification for Deletion:** This License Condition has been met. By Duke letter<sup>39</sup>, McGuire provided information on the results of the EPRI valve test program that applied to McGuire Units 1 and 2. McGuire also provided information in a Duke letter<sup>40</sup> which stated that the safety and relief valve discharge piping and supports had been verified to ensure functionability and that there were no adverse effects on valve operability. The NRC staff concluded that McGuire's approach was acceptable and satisfied this License Condition. This conclusion is documented in SER Supplement No. 6

**k. Commission Orders on Babcock & Wilcox Plants, Subsequently Applied to all PWR Plants (II.K.2)**

Prior to January 1, 1982, the licensee as a participant in the Westinghouse Owners Group shall:

- (1) Submit a detailed analysis of the thermal mechanical conditions in the reactor vessel during recovery from small break LOCAs with an extended loss of all feedwater (II.K.2.13)
- (2) Provide an analysis of the potential for voiding in the reactor coolant system during anticipated transients (II.K.2.17)
- (3) Provide a bench mark analysis of sequential auxiliary feedwater flow to the steam generators following a loss of main feedwater (II.K.2.19)

**Proposed Change:** Delete License Condition 2.C.(11).k.

---

<sup>39</sup> June 30, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Qualification/Operability of pressurizer power operated relief valves (PORVs), safety valves, PORV block valves and associated piping and supports.

<sup>40</sup> November 1, 1982, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Safety/Relief Valve Piping Evaluation, NUREG-0737, Item II.D.1.A.

### **Justification for Deletion:**

Item II.K.2.13 - This License Condition has been met. The staff documented in Safety Evaluation Report, Supplement No. 6, that the McGuire Unit 1 and 2 reactor vessels would not be jeopardized by PTS events such as small breaks with an extended loss of feedwater for 32 effective full-power years because the predicted end of life RTNDT for these vessels is less than 200°F.

Item (II.K.2.17) - This License Condition has been met. McGuire provided a response by letter<sup>41</sup> documenting a Westinghouse study addressing the potential for void formation in Westinghouse-designed nuclear steam supply systems during natural circulation cooldown/depressurization transients. This study was submitted to the staff by the Westinghouse Owners Group (letter OG-57, dated April 20, 1981) and was applicable to McGuire. The staff concluded that McGuire met the requirements of this License Condition and documented this conclusion in Safety Evaluation Report, Supplement No. 6

Item (II.K.2.19) - This License Condition has been met. Subsequent analyses of this item by the NRC concluded that no further action was required for this TMI item. By letter<sup>42</sup>, the staff stated that the concerns expressed in NUREG-0737, Item II.K.2.19, were not considered applicable to nuclear steam supply systems with inverted U-tube steam generators such as those designed by Westinghouse and Combustion Engineering. The staff concluded that McGuire met the requirements of NUREG-0737, Item K.2.19 and documented this conclusion in Safety Evaluation Report, Supplement No. 6.

### **1. Final Recommendations of B&O Task Force (II.K.3)**

- (1) With respect to installation of the anticipatory reactor trip (II.D.3.12), prior to exceeding 5% rated power the licensee shall install a trip that meets the stated criteria.
- (2) With respect to a revised small break LOCA model (II.K.3.30), the licensee shall submit prior to May 1, 1982 to the NRC a revised model to account for recent experimental data including data from the LOFT Test Facility and the Semiscale Test Facility.

---

<sup>41</sup> December 14, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket No. 50-369, Status of License Conditions related to NUREG-0737 requirements.

<sup>42</sup> June 29, 1981, Steven A. Varga to Mr. J. J. Carey (Duquesna Light Company), Elimination of Item II.K.2.19 (Sequential Auxiliary Feedwater Flow Analysis) Requirement for Licensees with NSSSs Designed by W and CE.

**Proposed Change: Delete** License Condition 2.C.(11)1.

**Justification for Deletion:**

Item (1) - This portion of the License Condition has been met. By letter<sup>43</sup>, Duke documented the installation of a direct reactor trip on turbine trip to provide additional protection against PORV challenges. The NRC documented the satisfaction of this License Condition in Safety Evaluation Report, Supplement No. 6.

Item (2) - This portion of the License Condition has been met. Westinghouse submitted a revised model to the NRC for review on March 26, 1982 (NS-EPR-2581, E. P. Rahe, Jr. to Darrell G. Eisenhut). Duke notified the NRC by letter<sup>44</sup> of the subject submittal and the completion of this License Condition. The NRC documented satisfaction of this item in Safety Evaluation Report, Supplement No. 6.

**m. Upgrade Emergency Preparedness**

The licensee shall submit by July 1, 1981 a description of how the augmented staffing guidance of Table B-1, NUREG-0654, Rev. 1, will be met by July 1, 1982. (III.A.1-1, and Appendix C, page c-13).

**Proposed Change:** Delete License Condition 2.C.(11).m.

**Justification for Deletion:** This License Condition has been met. Duke provided information pertaining to McGuire's augmented staffing in the event of an emergency in letters<sup>45, 46</sup>. The staff documented satisfaction of this License Condition in NRC Inspection Report No. 50-369/82-06 and Safety Evaluation Report, Supplement No. 6.

**n. Upgrade Emergency Support Facilities**

(1) The licensee shall submit by June 15, 1981 the conceptual design description of emergency response facilities in sufficient detail to describe how the

---

<sup>43</sup> June 18, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Updated response to Duke Power Company, McGuire Nuclear Station, Response to TMI Concerns.

<sup>44</sup> April 30, 1982, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, License Condition 2.C.(11)1.(2).

<sup>45</sup> April 3, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Response to Generic Letter 81-10.

<sup>46</sup> July 1, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket No.s 50-369 and 50-370, Submittal of a description of emergency staffing provisions per License Condition (11)m.

- guidance of NUREG-0696 will be met (III.A.2, and Appendix C, Section H, page C-8)
- (2) The licensee shall provide meteorological and dose assessment capability to meet the guidance of Appendix 2, NUREG-0654, Rev. 1, as follows: (1) a functional description of upgraded capabilities by January 1, 1982, and (2) full operational capability by July 31, 1983. (III.A.2, and Appendix C, Section H, page C-8)
  - (3) The licensee shall revise, prior to exceeding 1% power, the emergency plan implementing procedures to incorporate the following in dose projections:
    - (a) actual source terms, rather than design basis accident source terms.
    - (b) realistic meteorological conditions over the dose time period.
    - (c) actual containment pressure. (III.A.2, Appendix C, and Section H, page C-8)

**Proposed Change:** Delete License Condition 2.C.(11).n.

**Justification for Deletion:**

Paragraph (1) of this License Condition has been met. The requested information was provided by Duke letter<sup>47</sup>. The NRC documented satisfactory completion of this portion of the License Condition in Safety Evaluation Report, Supplement No. 6

Paragraph (2), Item (1) of this License Condition (as amended by Amendment 15 to Facility Operating License NPF-9<sup>48</sup>) has been met. The functional description was provided by Duke letter<sup>49</sup>. The NRC documented satisfactory completion of this portion of paragraph 2 in SER Supplement No. 6.

Paragraph (2), Item (2) has been met. Before the Unit 1 license was issued, Generic Letter 82-33, ("Supplement 1 to NUREG-0737, Requirements for Emergency Response Capability,"<sup>50</sup>) was issued which provided additional clarification to licensees regarding Safety Parameter Display Systems, Detailed Control Room Design

---

<sup>47</sup> June 1, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Duke Power Company's plans for complying with guidance of NUREG-0696.

<sup>48</sup> August 25, 1982, Elinor G. Adensam to Mr. Hal B. Tucker, Issuance of Amendment No. 15 to Facility Operating License NPF-9, McGuire Nuclear Station, Unit 1.

<sup>49</sup> December 21, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Upgraded Meteorological System.

<sup>50</sup> December 17, 1982, Darrell G. Eisenhut to All Licensees of Operating Reactors, Applicants for Operating Licenses, and Holders of Construction Permits, Supplement 1 to NUREG-0737 - Requirements for Emergency Response Capability (Generic Letter No. 82-33).

Reviews, Regulatory Guide 1.97 (Revision 2) - Application to Emergency Response Facilities, Upgrade of Emergency Operating Procedures, Emergency Response Facilities, and Meteorological Data. The implementation schedule for emergency systems and facilities. Licensees were instructed to develop plant-specific schedules by April 15, 1983. The NRC staff's intent to evaluate the operational capability of completed emergency response facilities (i.e. TSC, OSC and EOF) was to be conducted as part of the post implementation review against the requirements of Supplement 1 to NUREG-0737. By letter<sup>51</sup>, the NRC issued an Order confirming McGuire's commitments on emergency response capability for Units 1 and 2. Attachment 1 to that letter "Licensee's Commitments on Supplement 1 to NUREG-0737," Item #5 documented full functional capability of McGuire's Technical Support Center, Operational Support Center and the Emergency Operations Facility and satisfied this License Condition.

Paragraph (3) has been met. The revised procedures and amplifying information was provided in a Duke letter<sup>52</sup>. The NRC concluded in Safety Evaluation Report, Supplement 6 that the revised procedures adequately incorporated the aforementioned items and that this part of condition 2.C.(11).n was met.

#### **Section 2.C.(12), "Steam Generator Design Modification"**

The licensee shall conduct the inspection, testing and monitoring program as described in the attachment to Hal B. Tucker's letters of February 3 and April 28, (revised), 1983. The licensee shall not make any major modifications to this program unless prior NRC approval is received.

Major modifications are defined as:

- a. Elimination of any identified testing, inspection or monitoring,
- b. Changes in the frequency of performing the identified testing, inspection or monitoring, and
- c. Reduction in the scope of any of the identified testing, inspection or monitoring,

**Proposed Change:** Delete License Condition 2.C.(12).

---

<sup>51</sup> June 15, 1984, Elinor G. Adensam to Mr. H. B. Tucker, Issuance of Order Confirming Licensee Commitments on Emergency Response Capability.

<sup>52</sup> June 15, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Revisions to Emergency Plan Implementing Procedures as required by License Condition (11).n.(3).

**Justification for Deletion:** This License Condition has been met. A generic problem was identified concerning vibration-induced wear in the preheater section specific to Westinghouse Model D steam generators. McGuire replaced the Model D steam generators in both units with feeding steam generators designed by Babcock & Wilcox International by approved License Amendment 175/157<sup>53</sup>.

**Section 2.C.(13), "Additional Conditions" and Appendix C**

The Additional Conditions contained in Appendix C, as revised through Amendment No. 192, are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

**Proposed Change:** Revise Appendix C to delete the License Condition to reflect the relocation of certain requirements of the former Technical Specifications.

**Justification for Deletion:** This portion of the License Condition has been met. Appendix C contains a License Condition introduced by Amendment Number 184<sup>54</sup>. This amendment involved implementation of Improved Standardized Technical Specifications consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Plants", for McGuire Units 1 and 2. The amendment approved the relocation of certain requirements included in Appendix A to licensee-controlled documents. This relocation was completed simultaneous with the implementation of the Improved Standardized Technical Specifications on November 14, 1998.

**Section 2.D:**

The facility requires an exemption from certain requirements of Appendix G to 10 CFR Part 50. This exemption is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 2 and in Supplement No. 4. This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption is, therefore, hereby granted. With the granting of this exemption, the facility will operate, to the extent authorized therein, in conformity with the application, as amended, the provisions of the Act; and the rules and regulations of the Commission.

---

<sup>53</sup> May 5, 1997, Victor Nerses to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC Nos. M90590 and M90591).

<sup>54</sup> September 30, 1998, Frank Rinaldi to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC NOS. M98964 and M98965).

**Proposed Change:** License Condition 2.D is being deleted.

**Justification for Deletion:** During the initial licensing of McGuire, exemptions to 10 CFR 50, Appendices G and H were required. These exemptions are no longer necessary due to subsequent changes to 10 CFR 50, Appendices G and H.

**Section 2.E:**

Duke Energy Corporation shall fully implement and maintain in effect all provision of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "McGuire Nuclear Station Physical security Plan," with revisions submitted through September 25, 1987; "McGuire Nuclear Station Training and Qualification Plan," with revisions submitted through July 3, 1986; and "mcGuire Nuclear Station Safeguards Contingency Plan," with revisions submitted through March 21, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

**Proposed Change:** Change the document titles for the above referenced plans as follows:

Change "McGuire Nuclear Station Physical Security Plan" to "Nuclear Security and Contingency Plan."

Change "McGuire Nuclear Station Training and Qualification Plan" to "Nuclear Security Training and Qualification Plan." Note, this document is not classified as safeguards information.

Delete "McGuire Nuclear Station Safeguards Contingency Plan," this information is now included in the "Nuclear Security and Contingency Plan."

**Justification for Change:** The titles of the referenced security documents have changed since initial issuance of the McGuire FOLs. The "Nuclear Security and Contingency Plan" was submitted

to the NRC by Duke letter<sup>55</sup>. The Nuclear Security Training and Qualification Plan" was submitted to the NRC by Duke letter<sup>56</sup>.

### **Section 2.F**

**Proposed Change:** Add a reference to this License Condition.

**Justification for Addition:** Amendment Number 79<sup>57</sup>, to the Unit 1 license combined License Conditions 2.E and 2.F into a new condition 2.E. Condition 2.F was deleted at that time. The addition of the reference documents the deletion of this License Condition and facilitates consistent format and numbering.

### **Section 2.G:**

The licensee shall report any violations of the requirements contained in Section 2 Items C.(1), C.(3) through C.(11), E and F of this license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation, with a written followup report within 14 days.

**Proposed Change:** Delete License Condition 2.G.

**Justification for Deletion:** The primary reporting requirements for these license conditions are covered by 10 CFR 50.72 and 10 CFR 50.73.

### **Section 2.H**

The licensee shall immediately notify the NRC of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.

**Proposed Change:** Delete License Condition 2.H.

---

<sup>55</sup> July 1, 1994, M. S. Tuckman to U. S. Nuclear Regulatory Commission, Document Control Desk , Nuclear Security and Contingency Plan, Revision 0.

<sup>56</sup> January 7, 1993, Oconee Nuclear Station, Docket Nos. 50-269, -270, , -287, McGuire Nuclear Station, Docket Nos. 50-369, -370, Catawba Nuclear Station, Docket Nos. 50-413, -414, Revision 0, Duke Power Company Nuclear Security Training and Qualification Plan.

<sup>57</sup> March 28, 1988, Darl Hood to Mr. H. B. Tucker, Issuance of Amendment No. 79 to Facility Operating License NPF-9 and Amendment No. 60 to Facility Operating License NPF-17 - McGuire Nuclear Station, Units 1 and 2 (TACS 65372/65373).

**Justification for Deletion:** The reporting requirements for these license conditions are primarily covered by 10 CFR 50.72 and 10 CFR 50.73.

**Section 2.K.(f)**

**Proposed Change:** Change reference from Technical Specification 3/4.9.7 to Selected Licensee Commitment 16.9.20.

**Justification for Change:** Technical Specification 3/4.9.7 no longer exists. Approved License Amendment 184/166<sup>58</sup> converted the McGuire Technical Specifications to the new Improved Technical Specifications based on NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Technical Specification 3/4.9.7 was relocated to the McGuire Selected Licensee Commitments Manual, Section 16.9.20.

---

<sup>58</sup> September 30, 1998, Frank Rinaldi to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2 (TAC NOS. M98964 and M98965)

## Unit 2 Facility Operating License NPF-17, Docket No. 369

### Section 1.H states:

H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-17, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as appendix B, is in accordance with 10 CFR part 51, of the Commission's regulations and all applicable requirements have been satisfied;

**Proposed Change:** Eliminate the reference to the Environmental Protection Plan in Section 1.H.

**Justification for Change:** The Environmental Protection Plan (formally Appendix B to the FOL) was deleted by the NRC by approved License Amendment 146<sup>59</sup>. This elimination of this reference was approved for Catawba Nuclear Station by License Amendment 164/156<sup>60</sup>.

### Section 2.C (1) states:

#### Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

**Proposed Change:** Change FOL Section 2.C (1) to state that the maximum authorized power level is "full steady state power level of 3411 megawatts thermal (100%)" and delete Attachment 1.

<sup>59</sup> February 5, 1996, Victor Nerses to Mr. M. S. Tuckman, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC Nos. M90860 and M90861).

<sup>60</sup> April 23, 1998, Peter S. Tam to Mr. Gary R. Peterson, Issuance of Amendments - Catawba Nuclear Station, Units 1 and 2, (TAC Nos. MA0359 and MA0360).

**Justification for Change:** This change is intended to provide clarification as to when Duke would report a power level >100% as specified in FOL Section 2.C.(1.). Duke administrative controls define steady state so as to clarify when reporting is required. NRC Inspection Procedure 61706, "Core Thermal Power Evaluation," associates maximum thermal power with "steady-state." This change would bring McGuire's FOLs in line with the wording used in most FOLs (see Table 1 to NRCs SER for Catawba's approved license amendment 164/156<sup>61</sup>) and would permit use of the staff's guidance cited above.

The precritical License Conditions (1.a through 1.r) of Attachment 1 have been met. The closeout actions mainly consisted of design evaluations and test completions. The tests involved were analyzed and/or witnessed to ascertain procedural and performance adequacy. The NRC documented the completion of items 1.a through 1.r in Inspection Report Nos. 50-369/83-21 and 50-370/83-29<sup>62</sup>.

Item II.B.3 required the completion of system installation and the performance of a satisfactory functional checkout test of the post accident sampling system. This item has been met and is addressed under License Condition 2.C.(10)b.

**Section 2.C.(4) Thermal Sleeves (Section 3.9.2 of SSER #6)\***

By December 31, 1983, the licensee shall provide, for NRC staff review and approval, justification for continued operation with the seven thermal sleeves removed from selected locations in the reactor coolant system;

**Proposed Change:** Delete License Condition 2.C.4.

**Justification for Deletion:** This License Condition has been met. By Duke letter<sup>63</sup>, McGuire submitted the results of evaluations performed by Westinghouse and Duke as a basis for continued operation of McGuire Units 1 and 2 without thermal sleeves installed in the reactor coolant system nozzles. By letter<sup>64</sup>, the NRC issued a SER concluding that this License Condition had been met without further action.

---

<sup>61</sup> April 23, 1998, Peter S. Tam to Mr. Gary R. Peterson, Issuance of Amendments - Catawba Nuclear Station, Units 1 and 2, (TAC Nos. MA0359 and MA0360).

<sup>62</sup> June 28, 1983, R. C. Lewis to Mr. H. B. Tucker, Report Nos. 50-369/83-21 and 50-370/83-29.

<sup>63</sup> December 14, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Justification for Continued Operation with seven thermal sleeves removed.

<sup>64</sup> December 30, 1986, Darl Hood to Mr. H. B. Tucker, Reactor Coolant System Thermal Sleeves - McGuire Nuclear Station, Units 1 and 2.

**Section 2.C.(5) Model D-3 Steam Generator (Section 5.3.1 of SSER #6)**

Prior to operation in excess of 2,000 hours at power levels in excess of 5% power or operation at power levels in excess of 50% power, the licensee shall provide appropriate steam generator hardware modifications and implement appropriate surveillance measures with respect to the steam generator modification.

**Proposed Change:** Delete License Condition 2.C.(5).

**Justification for Deletion:** This License Condition has been met. A generic problem was identified concerning vibration-induced wear in the preheater section specific to Westinghouse Model D steam generators. McGuire replaced the Model D steam generators in both units with feeding steam generators designed by Babcock & Wilcox International by approved License Amendment 175/157<sup>65</sup>.

**Section 2.C.(6) Environmental Qualification (Section 7.8 of SER, SSER #4, #5, #6, #7)**

The licensee shall environmentally qualify all electrical equipment within the scope of 10 CFR 50.49 in accordance with the implementation requirements of 10 CFR 50.49 (g).

**Proposed Change:** License Condition 2.C.6 is being deleted.

**Justification for Deletion:** This License Condition has been met. The Commission amended its regulations to clarify and strengthen the criteria for environmental qualification of electric equipment important to safety. A copy of the new rule, "10 CFR 50.49, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants" was transmitted as Generic Letter 84-24<sup>66</sup>. Pursuant to 10 CFR 50.54(f), each licensee was required to submit, under oath or affirmation, a certification that: (a) the utility had in place and was implementing an Environmental Qualification (EQ) Program that satisfied the requirements of 10 CFR 50.49 within the approved schedule for the plant, (b) the plant had at least one path to safe shutdown using fully qualified equipment, or had submitted a justification for continued operation (JCO) pending full qualification of any equipment not fully qualified; and (C) all

---

<sup>65</sup> May 5, 1997, Victor Nerses to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC Nos. M90590 and M90591).

<sup>66</sup> December 27, 1984, Darrell G. Eisenhut to All Licensees of Operating Reactors and Applicants for an Operating License, Certification of Compliance to 10 CFR 50.49, Environmental Qualification of electric Equipment Important to safety for Nuclear Power plants (Generic letter 84-24).

other equipment within the scope of 50.49 is either fully qualified or a JCO has been submitted pending full qualification. By Duke letter<sup>67</sup>, Duke provided a response to the subject Generic Letter. Duke certified that a program was in place to satisfy the requirements of 10 CFR 50.49. The deletion of this License Condition eliminates the need for the associated footnote.

### **Section 2.C.(7) Fire Protection**

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as updated, for the facility through the 1989 annual FSAR update and as approved in the SER dated March 1978 and Supplements 2, 5 and 6 dated March 1979, April 1981, and February 1983, respectively, and the safety evaluation dated May 15, 1989, subject to the following provision: The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- (b) The licensee shall perform required modifications to the oil collection system and fire suppression system for the Reactor Coolant Pump (RCP) motor no later than March 1, 1984.
- (c) Prior to exceeding %5 power, the licensee shall submit a schedule for installation of system instrumentation provisions for source range neutron flux and reactor coolant system temperature ( $T_{cold}$ ) monitors as an integral part of the Standby Shutdown System;

**Proposed Change:** Paragraph 1 - Delete reference to the FSAR "through the 1989 annual update", Items (7)b and 7(c).

**Justification for Change:** This proposed change removes the reference to a specific revision to the UFSAR. The proposed change eliminates the need to request administrative license amendments to change references to revision/update/supplement numbers. Separate regulations require Duke to maintain the UFSAR up to date and submitted to the NRC on a periodic basis

---

<sup>67</sup> January 28, 1985, Hal B. Tucker to Mr. Harold R. Denton, Oconee Nuclear Station, McGuire Nuclear Station, Catawba Nuclear Station, Docket Nos. 50-269, -270, -287, 50-369, -370, 50-413, -414, Response to Generic Letter 84-24.

(10CFR 50.71(e)). The frequency of Duke's reporting requirement has been relaxed by an exemption issued by letter<sup>68</sup> by the NRC.

Item (b) has been met. As documented in Safety Evaluation Report, Supplement No. 6, Section 9.5.1, Fire Protection System, the staff concluded that Sections III.G, III.J and III.O of Appendix R to 10 CFR 50 were satisfied in all areas of the plant.

Item (c) has been met. By Duke letter<sup>69</sup>, Duke provided a schedule for installation of reactor coolant system cold-leg temperature (T-cold) monitors as part of the Standby shutdown System. A second letter<sup>70</sup>, provided a schedule for installation of source-range neutron flux instrumentation.

**Section 2.C.(8) Heavy Loads (Section 9.1.5 of SSER #6)**

Prior to startup following the first refueling outage, the license shall comply with the guidelines of Section 5.1.1 of NUREG-0612 (Phase I - the six-month response to the NRC generic letter dated December 22, 1980) and prior to startup following the second refueling outage, the licensee shall have made commitments acceptable to the NRC regarding the guidelines of Sections 5.1.2 through 5.1.6 of NUREG-0612 (Phase II - nine-month responses to the NRC generic letter dated December 22, 1980);

**Proposed Change:** Delete License Condition 2.C.8.

**Justification for Deletion:** This License Condition has been met. By NRC letter<sup>71</sup> the staff transmitted a Safety Evaluation Report that documented the resolution of both the Phase I and Phase II portions of this License Condition. In addition, by letter<sup>72</sup>, the NRC issued approved license amendment 97/79. This amendment documented the deletion of License Condition 2.C.8.

---

<sup>68</sup> June 10, 1997, Herbert N. Berkow to Mr. M. S. Tuckman, Issuance of Exemption to 10 CFR 50.71 (e) (4), Catawba and McGuire Nuclear Stations (TAC M98043, M98044, M98100, and M98101).

<sup>69</sup> May 13, 1983, Hal B. Tucker to Harold R. Denton, McGuire Nuclear Station, Docket No. 50-370, License Condition 2.C.7.(c), schedule for installation of reactor coolant system cold-leg temperature (T-cold) monitors.

<sup>70</sup> May 13, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket No. 50-370, License Condition 2.C.7.(c), Provisional schedule for installation of source-range neutron flux instrumentation.

<sup>71</sup> March 12, 1985, Thomas M. Novak to Mr. H. B. Tucker, Control of Heavy Loads.

<sup>72</sup> June 6, 1989, Darl Hood to Mr. H. B. Tucker, Issuance of amendment No. 97 to Facility Operating License NPF-9 and Amendment No. 79 to Facility Operating License NPF-17 - McGuire Nuclear Station, Units 1 and 2 (TACS 64744/64745).

**Section 2.C.(9) Initial Test Program (Section 14.0 of SER)**

The licensee shall conduct the initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended through Revision No. 45) without making any modifications to this program unless such modifications are in accordance with the provisions of 10CFR Section 50.59. In addition, the licensee shall not make any major modifications to this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified as essential in Section 14 of the Final Safety analysis Report, as amended through Revision No. 45,
- b. Modification of test objectives, methods or acceptance criteria for any test identified as essential in Section 14 of the Final Safety Analysis Report, as amended through Revision No. 45,
- c. Performance of any test at a power level different from that described in the program, as limited by this license authorization, and
- d. Failure to complete any tests included in the described program (planned or scheduled) for power levels up to the authorized power level.

**Proposed Change:** Delete License Condition 2.C.9.

**Justification for Deletion:** This License Condition has been met. The Unit 2 startup report was completed pursuant to Technical Specification 6.9.1.1 and addressed the results of startup testing from Initial Fuel Loading through testing at the 90% power level. By Duke letter<sup>73</sup>, Duke submitted Supplement 8 to the startup report for Unit 2/Cycle 1 which documented completion of the Startup Testing Program.

**Section 2.C (10) NUREG-0737 Conditions (Section 22.3, 22.4, 22.5 of SSER #5 & #6, Section 13.3 of SSER #6)**

- a. **Short Term Accident Analysis and Procedures Review** (I.C.I)

Prior to exceeding %5 power, all of the Emergency Operating Procedures shall use the same format (either narrative or columnar).

**Proposed Change:** Delete License Condition 2.C.(10)a.

<sup>73</sup> December 17, 1985, Hal B. Tucker to Dr. J. Nelson Grace, McGuire Nuclear Station, Unit 2, Docket No. 50-370, Startup Report (Cycle 1) - Supplement 8.

**Justification for Deletion:** This License Condition has been met. Letter<sup>74</sup>, submitted Revision 4 to the Duke response to Supplement 1 to NUREG-0737. This revision contained a revised Writer's Guide for Emergency and Abnormal procedures. All Emergency Operating Procedures are written in the same columnar format.

b. **Postaccident Sampling** (II.B.3)

Prior to exceeding 5% power, a high-radiation sampling system for obtaining reactor coolant and containment atmosphere sampling under degraded core accident conditions shall be operable.

**Proposed Change:** Delete License Condition 2.C.(10)b.

**Justification for Deletion:** This item was met prior to exceeding 5% power. The NRC documented completion for Unit 1 and installation for Unit 2 prior to 5% power acceptable for Unit 2 in Safety Evaluation Report, Supplement No. 6. By Duke letter<sup>75</sup>, McGuire documented the installation and operability of these panels to meet Item II.B.3 of NUREG-0737.

c. **Inadequate Core Cooling Instruments** (II.F.2)

- 1) Prior to startup following the first refueling outage, the licensee shall install a reactor vessel water level instrumentation system, and
- 2) Prior to startup following the first refueling outage, the licensee shall upgrade the in-containment portion of the incore thermocouple system and provide a schedule for update of the remainder of the system.

**Proposed Change:** License Condition 2.C.(10)c is being deleted.

**Justification for Deletion:**

Item 1): This portion of the License Condition has been met. The NRC and contractors from Oak Ridge National Laboratory met at McGuire to discuss Duke's experience with the ICCI systems. By

---

<sup>74</sup> August 30, 1988, Hal B. Tucker to Document Control Desk, Duke Power Company, McGuire Nuclear Station, Docket Nos. 50-369 and 50-370, Revision 4 to Duke power Company Response to Supplement 1 to NUREG-0737 for McGuire Nuclear Station.

<sup>75</sup> May 31, 1984, Hal B. Tucker to Mr. James P. O'Reilly, McGuire Nuclear Station, Units 1 and 2, Docket Nos. 50-369, 370, Post -Accident Sampling Panels.

letter<sup>76</sup>, the NRC documented the this post-implementation audit. The purpose of the visit was not to evaluate McGuire's conformance to the requirements of NUREG-0737, Item II.F.2; however, the audit confirmed that the ICCI system of McGuire Units 1 and 2 consisted of a Subcooling Margin Monitor (SMM), Reactor Vessel Level Instrumentation System (RVLIS), and Core Exit Thermocouples (CET) which were required by the NRC.

Item 2): This portion of the License Condition has been met. By letter<sup>77</sup>, the NRC issued a Safety Evaluation Report which concluded that McGuire's proposed final ICCI was in compliance with the Item II.F.2 requirements upon upgrading the existing ICCI, the implementation of the revised EOPs and the installation and calibration of the RVLIS for Unit 2. By Duke letter<sup>78</sup>, McGuire provided a status of the ICCI implementation milestones for McGuire. This letter documented the completion of the installation, functional testing and calibration of the ITS as well as the implementation of the revised EOPs. As discussed in Item 1 above, the audit by the NRC and its contractor confirmed the ICCI system consisted of a Subcooling Margin Monitor (SMM), Reactor Vessel Level Instrumentation System (RVLIS), and Core Exit Thermocouples (CET) which were required by the NRC.

d. **Anticipatory Reactor Trip** (II.K.3.10)

Prior to exceeding 50% power the licensee shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

**Proposed Change:** License Condition 2.C.(10)d is being deleted.

**Justification for Deletion:** This License Condition has been met. By letter<sup>79</sup>, the NRC issued a Safety Evaluation Report concluding McGuire effectively simulated the required turbine trip test and completed the requirements of License Condition 2.C.(11)g for Unit 1. By Duke letter<sup>80</sup>, McGuire notified the NRC that the same test methods used for Unit 1 would be used for Unit 2. The Unit

---

<sup>76</sup> May 27, 1988, Darl Hood to Duke Power Company, Summary of April 28, 1988 Meeting on Inadequate Core Cooling Instrumentation Systems (TACS 67755 and 67756).

<sup>77</sup> September 17, 1984, Thomas M. Novak to Mr. H. B. Tucker, Inadequate Core Cooling Instrumentation System (McGuire Nuclear Station, Units 1 and 2).

<sup>78</sup> June 25, 1985, Hal B. Tucker to Dr. J. Nelson Grace, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, Status of ICCI Implementation Milestones.

<sup>79</sup> May 17, 1983, Thomas M. Novak to Mr. H. B. Tucker, OL condition 2.C.(11)g, Anticipatory Reactor Trip (II.K.3.10) (McGuire Nuclear Station, Unit 1).

<sup>80</sup> June 9, 1983, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket No. 50-370, Test method for turbine trip tests.

2 Loss of Electrical Load Test was performed on August 23 and August 30, 1993 and documented in the McGuire Unit 2 Startup Report, Section 9.9. UFSAR Chapter 14, Table 14-2 also required successful completion testing for both McGuire units as a prerequisite for increasing power to the next plateau.

e. **Hydrogen Control Measures** (II.B.7)

1. Prior to startup following the first refueling outage, the licensee shall:
  - a. Install two additional igniter units in the containment lower compartment and four additional igniter units in the containment upper compartment in locations acceptable to the NRC staff.
  - b. Provide a means acceptable to the NRC staff of verifying the operational status of the hydrogen control system in the main control room.
  - c. Provide the capability to actuate the Hydrogen Mitigation system from the control room.
2. Operation of the hydrogen mitigation igniter system shall be activated upon a safety injection signal with accompanying indications of a loss of coolant accident.

**Proposed Change:** Delete License Condition 2.C.(10)e.

**Justification for Change:** This License Condition has been met. By Duke letter<sup>81</sup>, McGuire submitted a report entitled "An analysis of Hydrogen control Measures at McGuire Nuclear Station" dated October, 1981. By letter<sup>82</sup>, the staff issued a Safety evaluation, "Closure of the Hydrogen Control Issue Pursuant to 10 CFR 50.44 for Catawba and McGuire Nuclear Stations." The NRC staff concluded that the provisions of 10 CFR 50.44 had been acceptably responded to for both Catawba and McGuire.

f. **Emergency Response Capability (I.C.1, I.D.1, I.D.2, III.A.1.2, III.A.2.2)**

---

<sup>81</sup> October 30, 1981, William O. Parker, Jr. to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Nos. 50-369, 50-370, "An Analysis of Hydrogen Control Measures at McGuire Nuclear Station."

<sup>82</sup> May 26, 1993, David B. Matthews to Mr. Hal B. Tucker, Safety Evaluation - Closure of the Hydrogen Control Issue Pursuant to 10 CFR 50.44 for Catawba and McGuire Nuclear Stations (TAC Nos. M63034, M63035, M63032, M63033.)

- 1) By April 15, 1983, the licensee shall submit a response to NRC generic letter 82-33, dated December 17, 1982, related to emergency response capabilities.
- 2) The licensee shall maintain interim emergency support facilities (Technical Support Center, Operations Support Center and the Emergency Operations Facility) until the upgraded facilities are completed.

**Proposed Change:** Delete License Condition 2.C.(10)f.

**Justification for Deletion:** This License Condition has been met.

Item 1) Duke responded to Generic Letter 82-33 by letter<sup>83</sup>.

Item 2) McGuire's response to Item 1 described McGuire's emergency response facilities. Duke documented the operation of the Emergency Operations Facility as an interim facility. By letter<sup>84</sup>, the staff documented the full functional capability of the McGuire Technical Support Center, Operational Support Center and Emergency Operations Facility.

#### **(11) Protection of the Environment**

Before engaging in additional construction or operational activities which may result in a significant adverse environmental impact that was not evaluated or that is significantly greater than that evaluated in the Final Environmental Statement dated April 1976, the licensee shall provide written notification to the office of Nuclear Reactor Regulation.

**Proposed Change:** Delete License Condition 2.C.(11).

**Justification for Deletion:** This License Condition has been met. This condition provided assurance that any construction or operating activities remained within the scope of the original Environmental Impact Statement. Activities of this nature are currently regulated by the Environmental Protection Agency, the state of N.C., and must meet the requirements of the Duke Corporate Environmental Program.

---

<sup>83</sup> April 14, 1983, Hal B. Tucker to Mr. Harold R. Denton, Duke Power Company, Catawba Nuclear Station, McGuire Nuclear Station, Oconee Nuclear Station, Docket Nos. 50-413, -414, -369, -370, -269, -270, -287, Response to Supplement 1 to NUREG-0737 (Generic letter 82-33).

<sup>84</sup> June 15, 1984, Elinor G. Adensam to Mr. Hal B. Tucker, Issuance of Order Confirming Licensee Commitments on Emergency Response Capability.

**(12) Reactor Trip Breakers (Section 7.2 of SSER #7)**

On failure of any reactor trip breaker or reactor trip bypass breaker, either in service or during testing (on either undervoltage or shunt coils), preserve evidence of failure and notify the Commission pursuant to Technical Specification 6.9.1.10.

**Proposed Change:** Delete License Condition 2.C.(12).

**Justification for Deletion:** The NRC added paragraph 2.C(12) to the operating license for McGuire Unit 2 to require specific measures to improve the reliability of reactor trip breakers. This was in response to failures of Westinghouse DS-416 circuit breakers throughout the industry. By Duke letter<sup>85</sup>, McGuire submitted a proposed Technical Specification change which incorporated testing and surveillance requirements for Reactor Trip Breakers (RTBs) which generally conformed to Generic Letter 85-09. This change also proposed the deletion of License Condition 2.C.(12) and provided justification for the deletion in Attachment IV. This justification addressed the issues discussed in Section 7.2 of Supplement No. 7 of the McGuire Safety Evaluation Report. By letter<sup>86</sup>, the NRC approved the subject change and issued Amendment no. 75 to McGuire Unit 2 which deleted License Condition 2.C(12) and referenced Table 1 from the operating license. The Safety Evaluation Report noted that Table 1 contained a footnote that was not redundant to requirements expressed elsewhere in the license. The staff concluded that evidence of failures needed to be preserved and wished to receive timely reporting if such failures did occur. Therefore, the footnote was retained as the current License Condition. Duke believes that the intent of the License Condition is met via Technical Specifications and reporting criteria of 10CFR50.72, 10CFR50.73 and 10 CFR Part 21.

Operability of the Reactor Trip Breakers is addressed under Technical Specification 3.3.1. The LCO requires both the undervoltage and shunt trip mechanisms to be OPERABLE for each RTB that is in service.

Testing is addressed in Surveillance Requirement 3.3.1.4 and 3.3.1.14. A Trip Actuating Device Operational Test (TADOT) is

---

<sup>85</sup> December 7, 1985, Hal B. Tucker to Mr. Harold R. Denton, McGuire Nuclear Station, Docket Numbers 50-369/370, Proposed Technical Specification Changes for Reactor Trip Breaker Testing (Generic Letter 85-09).

<sup>86</sup> March 28, 1989, Darl Hood to Mr. H. B. Tucker, Issuance of Amendment No. 75 to Facility Operating License NPF-17 - McGuire Nuclear Station, Unit 2 (TAC 66086).

performed on the reactor trip bypass breaker prior to placing the bypass breaker in service. This testing is required on a 31 day staggered test basis.

Any failure of a reactor trip breaker or a reactor trip bypass breaker would be documented in Duke's 10 CFR 50, Appendix B, Criterion XVI, Corrective Action Program (Problem Investigation Process.) This process requires a cause analysis, corrective actions and evaluation of reporting criteria.

**Page 7a - Table 1**

**Periodic Surveillance/Maintenance of Reactor Trip Breakers and Reactor Trip Bypass Breakers**

**Proposed Change:** Delete Table 1.

**Justification for Deletion:** By letter<sup>87</sup>, the staff issued Amendment 75 for McGuire Unit 2. This amendment deleted License Condition 2.C(12) and referenced Table 1 from the operating license.

**(13) Additional Conditions**

The Additional Conditions contained in Appendix D, as revised through Amendment No. 166, are hereby incorporated into this license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

**Proposed Change:** Revise License Condition 2.C.(13) to reflect revised Amendment number. Revise Appendix D to delete the License Condition associated with the relocation of certain requirements of Appendix A.

**Justification for Change:** This portion of the License Condition has been met. Appendix D contains a License Condition introduced by Amendment Number 166<sup>88</sup>. This amendment involved implementation of the Improved Standardized Technical Specifications consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Plants", for McGuire Units 1 and 2. The amendment approved the relocation of certain requirements included in Appendix A to licensee-controlled documents. This relocation was completed simultaneous with the

<sup>87</sup> March 28, 1989, Darl Hood to Mr. H. B. Tucker, Issuance of Amendment No. 75 to Facility Operating License NPF-17 - McGuire Nuclear Station, Unit 2 (TAC 66086).

<sup>88</sup> September 30, 1998, Frank Rinaldi to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2, (TAC NOS. M98964 and M98965).

implementation of the Improved Standardized Technical Specifications on November 14, 1998.

#### **Section 2.D**

The facility requires an exemption from certain requirements of Appendix G to 10 CFR 50. This exemption is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 2 and in Supplement No. 4 (Section 5.2.3). This exemption is authorized by law and will not endanger life or property interest. The exemption is, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of this exemption, the facility will operate, to the extent authorized therein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

**Proposed Change:** License Condition 2.D is being deleted.

**Justification for Deletion:** During the initial licensing of McGuire, exemptions to 10 CFR 50, Appendices G and H were required. These exemptions are no longer necessary due to subsequent changes to 10 CFR 50, Appendices G and H.

#### **Section 2.E**

Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10CFR 50.90 and 10 CFR 50.54(p). The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "McGuire Nuclear Station Physical Security Plan," with revisions submitted through September 25, 1987; "McGuire Nuclear Station Training and Qualification Plan," with revisions submitted through July 3, 1986; and McGuire Nuclear Station Safeguards Contingency Plan," with revisions submitted through March 21, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

**Proposed Change:** Change the document titles for the above referenced plans as follows:

Change "McGuire Nuclear Station Physical Security Plan" to "Nuclear Security and Contingency Plan."

Change "McGuire Nuclear Station Training and Qualification Plan" to "Nuclear Security Training and Qualification Plan." Note, this document is not classified as safeguards information.

Delete "McGuire Nuclear Station Safeguards Contingency Plan." This information is now included in the "Nuclear Security and Contingency Plan."

**Justification for Change:** The titles of the referenced security documents have changed since the initial issuance of the McGuire FOLs. The "Nuclear Security and Contingency Plan" was submitted to the NRC by letter<sup>89</sup>. The Nuclear Security Training and Qualification Plan" was submitted to the NRC by letter<sup>90</sup>.

#### **Section 2.F**

The licensee shall report any violation of the requirements contained in Section 2 Items C.(1), C.(4) through C.(11), and E of this license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the NRC Regional Administrator, Reg.II, or his designate, no later than the first working day following the violation, with a written followup report within 14 days;

**Proposed Change:** Delete License Condition 2.F.

**Justification for Deletion:** The reporting requirements for these license conditions are primarily covered by 10 CFR 50.72 and 10 CFR 50.73.

#### **Section 2.G**

The licensee shall notify the Commission, as soon as possible but not later than one hour, of any accident at this facility which would result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.

**Proposed Change:** Delete License Condition 2.G.

---

<sup>89</sup> July 1, 1994, M. S. Tuckman to U. S. Nuclear Regulatory Commission, Document Control Desk, Nuclear Security and Contingency Plan, Revision 0.

<sup>90</sup> January 7, 1993, Hal B. Tucker to Document Control Desk, Revision 0 to Duke Power Company Nuclear Security Training and Qualification Plan.

**Justification for Deletion:** This reporting requirement is duplicated by existing regulations for reportability under 10 CFR 50.72 and 10 CFR 50.73.

**Section 2.J.(f)**

**Proposed Change:** Change reference from Technical Specification 3/4.9.7 to Selected Licensee Commitment 16.9.20.

**Justification for Change:** Technical Specification 3/4.9.7 no longer exists. Approved License Amendment 184/166<sup>91</sup>, converted the McGuire Technical Specifications to the new Improved Technical Specifications based on NUREG-1431, "Standard Technical Specifications, Westinghouse Plants." Technical Specification 3/4.9.7 was relocated to the McGuire Selected Licensee Commitments Manual, Section 16.9.20.

---

<sup>91</sup> September 30, 1998, Frank Rinaldi to Mr. H. B. Barron, Issuance of Amendments - McGuire Nuclear Station, Units 1 and 2 (TAC NOS. M98964 and M98965)

**Attachment 4**  
**No Significant Hazards Consideration Evaluation**

Pursuant to 10CFR50.92, Duke Energy Corporation has determined that the proposed amendment involves No Significant Hazards Considerations. The changes contained in this LAR are either administrative, eliminate duplication of other regulatory requirements or delete License Conditions fully met by Duke Energy Corporation. The determination of No Significant Hazards was made by applying the standards contained in regulation 10CFR50.92.

**1) Will the change involve a significant increase in the probability of consequences of an accident previously evaluated?**

No. The proposed amendment to the FOLs are either administrative, eliminate duplication of other regulatory requirements or delete License Conditions fully met by Duke Energy Corporation. No actual plant equipment, operating practices, or accident analyses are affected by this proposed amendment. Therefore, the proposed amendment has no impact on the possibility of any type of accident: new, different, or previously evaluated.

**2) Will the change create the possibility of a new of different kind of accident from any accident previously evaluated?**

No. The proposed amendment to the FOLs either administrative, eliminate duplication of other regulatory requirements or delete License Conditions fully met by Duke Energy Corporation. No actual plant equipment, operating practices, or accident analyses are affected by this proposed amendment and no failure modes not bounded by previously evaluated accidents are created. Therefore, the proposed amendment has no impact on the possibility of any type of accident: new, different, or previously evaluated.

**3) Will the change involve a significant reduction in a margin of safety?**

No. Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel and fuel cladding, reactor coolant system pressure boundary, and

containment structure) to limit the level of radiation dose to the public. The proposed amendment to the FOLs are either administrative, eliminate duplication of other regulatory requirements or delete License Conditions fully met by Duke Energy Corporation. Therefore, no reduction in any existing margin of safety is involved.

**Attachment 5**  
**Environmental Assessment**

Pursuant to 10CFR51.22(b), an evaluation of this LAR has been performed to determine whether or not it meets the criteria for categorical exclusion set forth in 10CFR51.22 (c) (9) and (10) of the regulations.

This LAR for the McGuire FOLs propose changes that are either administrative, eliminate duplication of other regulatory requirements or delete License Conditions fully met by Duke Energy Corporation such that the contents are consistent with current plant status and the current regulatory requirements. Therefore, this LAR meets the criteria of 10CFR51.22(c)(10) for categorical exclusion from an environmental assessment/impact statement.

This LAR will have no adverse radiation impact upon the environment, since it only applies to FOL requirements or conditions which have been met or otherwise are not currently applicable to McGuire Nuclear Station. It has been determined that this LAR involves:

- 1) No significant hazards consideration,
- 2) No significant change in the types, or significant increase in the amounts, of any effluents that may be released offsite, and
- 3) No significant increase in individual or cumulative occupational radiation exposures.

Therefore, this requested amendment to McGuire Facility Operating License meets the criteria of 10CFR51.22 (c) (9) for categorical exclusion from an environmental assessment/impact statement.