

POLICY ISSUE NOTATION VOTE

November 18, 2003

SECy-03-0200

FOR: The Commissioners

FROM: William D. Travers
Executive Director for Operations

SUBJECT: RENEWAL OF FULL-POWER OPERATING LICENSES FOR MCGUIRE
NUCLEAR STATION, UNITS 1 AND 2, AND CATAWBA NUCLEAR STATION,
UNITS 1 AND 2

PURPOSE:

To inform the Commission of the results of the U.S. Nuclear Regulatory Commission (NRC) staff's review of the license renewal application for the McGuire Nuclear Station (McGuire), Units 1 and 2, and Catawba Nuclear Station (Catawba), Units 1 and 2, submitted by Duke Energy Corporation (hereafter referred to as Duke or the applicant), and request that the Commission authorize the Director of the Office of Nuclear Reactor Regulation (NRR) to make the appropriate findings and renew the operating licenses for McGuire Units 1 and 2, and Catawba Units 1 and 2 for up to an additional 20 years.

BACKGROUND:

By letter dated June 13, 2001 (Reference 1), Duke submitted its application to renew the operating licenses for McGuire Units 1 and 2 and Catawba Units 1 and 2, in accordance with Parts 51 and 54 of Title 10 of the *Code of Federal Regulations* (CFR). In its submittal, the applicant requested renewal of operating licenses NPF-9 for McGuire Unit 1, and NPF-17 for McGuire Unit 2, for a period of 20 years beyond the current license expiration dates of midnight, June 12, 2021, for McGuire Unit 1, and midnight, March 3, 2023, for McGuire Unit 2. The applicant also requested renewal of operating licenses NFP-35 for Catawba Unit 1, and NFP-52 for Catawba Unit 2, for a period of 19 to 17 years respectively beyond the current license expiration dates of midnight, December 6, 2024, for Catawba Unit 1, and midnight, February 24, 2026, for Catawba Unit 2.¹ The operating licenses for McGuire Units 1 and 2 and Catawba Units 1 and 2, were initially issued under Section 103 of the Atomic Energy Act.

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301-415-1146

¹By letters dated October 1, 1999, the applicant was granted an exemption from 10 CFR 54.17(c) for McGuire Unit 2 and Catawba Units 1 and 2, in order to submit its application to renew the licenses prior to when the regulations would allow.

DISCUSSION:

The staff performed its safety review of the license renewal application in accordance with 10 CFR Part 54, using guidance in the NRR Office Letter 805, "License Renewal Application Review Process," and the "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," issued July 2001. The "Safety Evaluation Report Related to the License Renewal of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2" (Reference 2) (SER), describes the results of the staff's review of the applicant's scoping and screening, aging management programs, and time-limited aging analyses, in accordance with the requirements of 10 CFR Part 54. The SER was published as NUREG-1772 in March 2003.

The license renewal application included a supplement to the final safety analysis report (FSAR), as required by 10 CFR 54.21(d). By a letter dated October 28, 2002, the applicant transmitted Revision 1 of the FSAR supplements for McGuire and Catawba, which were subsequently revised by letters dated November 5, 2002, November 14, 2002, November 18, 2002, and November 21, 2002. By letter dated December 16, 2002, the applicant submitted Revision 2 of the FSAR supplements for McGuire and Catawba. The FSAR supplement revisions superseded the versions in the license renewal application. The revised FSAR supplements contain a summary description of the applicant's programs and activities for managing the effects of aging and the applicant's evaluation of the time-limited aging analyses for the period of extended operation. The staff reviewed the revised FSAR supplements and found that they meet the requirements of 10 CFR 54.21(d). The attached proposed renewed licenses require that the applicant include the FSAR supplements in the updated FSARs (UFSARs). By letter dated September 27, 2003, the applicant submitted the UFSAR for Catawba. The UFSAR for McGuire is scheduled for release in April 2004. Until the UFSAR update is completed, conditions in the proposed renewed licenses require that any changes to programs described in the FSAR supplements be made in accordance with 10 CFR 50.59. This assures the NRC that these programs, maintenance activities, and inspection procedures will be adequately controlled.

The FSAR supplements also identify future actions. Throughout NUREG-1772, the staff describes various schedules for future actions. These schedules reflect the staff's determination that the future actions are not required for operation during the existing license term; however, they are required to be completed before the units enter the period of extended operation to effectively manage aging. The proposed renewed licenses include license conditions for the completion of these future actions. The applicant can change the schedules for these actions without prior NRC approval as long as the actions are completed in accordance with the license condition.

On the basis of its safety evaluation, as described in NUREG-1772, the staff reached the following conclusions, in accordance with 10 CFR 54.29:

- (1) Actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require an aging management review under 10 CFR 54.21(a)(1).

- (2) Actions have been identified, and have been or will be taken with respect to time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c).

Accordingly, the staff finds that there is reasonable assurance that the activities authorized by the renewed licenses will continue to be conducted in accordance with the current licensing bases for McGuire Units 1 and 2 and Catawba Units 1 and 2.

To support the review of the applicant's license renewal applications, Region II conducted two inspections. The inspections were conducted in accordance with Inspection Manual Chapter 2516, "Policy and Guidance for the License Renewal Inspection Programs," and Inspection Procedure 71002, "License Renewal Inspection." As described in the memorandum from Luis A. Reyes, Regional Administrator, NRC Region II, dated December 30, 2002 (Reference 3), the results of these two inspections verified that the applicant implemented the scoping and screening methodology and established aging management programs in conformance with the descriptions in the application for license renewal, and that there is reasonable assurance that the applicant's aging management programs provide an adequate basis for renewing the licenses for McGuire Units 1 and 2 and Catawba Units 1 and 2 for up to an additional 20 years.

The staff issued the SER with open items on August 14, 2002 (Reference 4). On October 8, 2002, the staff and the applicant briefed the Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Plant License Renewal on the SER with open items. After the open items were resolved, the staff issued its final SER on January 6, 2003, which documented the staff's review and the resolution of open items. The ACRS Full Committee was briefed on February 6, 2003. On February 14, 2003, the ACRS issued its "Report on the Safety Aspects of the License Renewal Application for McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2." In its report (included in Chapter 5 of NUREG-1772), the ACRS recommended that application for renewal of the operating licenses for McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2, should be approved. The ACRS concluded that the programs instituted to manage aging-related degradation were appropriate and provided reasonable assurance that McGuire Units 1 and 2 and Catawba Units 1 and 2 can be operated in accordance with their licensing bases for the period of extended operation without undue risk to the health and safety of the public.

The staff performed its environmental review of the McGuire Units 1 and 2 and Catawba Units 1 and 2 license renewal application in accordance with 10 CFR Part 51, using the guidelines described in the "Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal," NUREG-1555, Supplement 1, dated March 2000. On August 23, 2001, and September 20, 2001, the staff published notices of intent to prepare two environmental impact statements (EISs) and conduct scoping for McGuire and Catawba, respectively (66 FR 44386 and 66 FR 48489). These notices initiated 60-day scoping periods for each site. The EISs, prepared by the staff for the plant-specific reviews, are supplements to the Generic Environmental Impact Statement (GEIS), NUREG-1437, which was codified in 10 CFR Part 51 for license renewal. The EISs for McGuire Units 1 and 2 and Catawba Units 1 and 2 are Supplements 8 and 9 to the GEIS (SEISs), respectively. On June 12, 2002, two public meetings were held in Huntersville, North Carolina for McGuire. On June 27, 2002, two other public meetings were held in Rock Hill, South Carolina for Catawba. During these meetings, the staff described the approach and results of the NRC's environmental reviews and

answered questions from members of the public. The comment periods for the draft SEISs for McGuire and Catawba ended on August 2, 2002, and August 9, 2002, respectively. The staff evaluated the comments received on the draft SEISs and considered the environmental impacts of the proposed actions, the environmental impacts of alternatives to the proposed actions, and the alternatives available for reducing or avoiding adverse impacts. The final versions of the SEISs for the McGuire Units 1 and 2 and Catawba Units 1 and 2 license renewal application were issued on December 24, 2002 (Reference 5). The disposition of comments from members of the public are discussed in Appendix A of the SEISs. As discussed in Section 9.3 of the SEISs, the staff determined that, on the basis of (1) the analysis and findings in the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," NUREG-1437; (2) the environmental reports submitted by the applicant; (3) consultation with other Federal, State, and local agencies; (4) the staff's own independent review; and (5) the staff's consideration of public comments, the adverse environmental impacts of license renewal for McGuire Units 1 and 2 and Catawba Units 1 and 2 are not so great that preserving the option of license renewal for energy-planning decision-makers would be unreasonable.

On October 23, 2001, requests for hearing and petitions for intervention were filed, seeking a hearing relating to the license renewal application. On January 24, 2002, the Atomic Safety and License Board (ASLB) admitted two contentions. This is the first license renewal application with contentions admitted by the ASLB. On April 12, 2002, the Commission reversed the admission of Contention 1, relating to the possible use of Mixed Oxide Fuel. On February 4, 2003, the ASLB dismissed Contention 2, relating to Severe Accident Mitigation Alternatives, as moot. On October 2, 2003, the ASLB denied admission of amended Contention 2. On October 16, 2003, the ASLB denied reinstatement of Contention 1, and terminated the proceeding. On November 4, 2003, the Blue Ridge Environmental Defense League filed a Petition for Review to the Commission seeking reversal of the ASLB's decision regarding amended Contention 2, relating to Severe Accident Mitigation Alternatives. The NRC is not compelled to await exhaustion of administrative or judicial appeals before renewing the operating licenses for McGuire Units 1 and 2, and Catawba Units 1 and 2 for up to an additional 20 years (56 FR 64943). In accordance with 10 CFR § 54.31(c), if the renewed licenses are subsequently set aside on appeal, the previous operating licenses would be reinstated.

In accordance with 10 CFR 54.19(b), license renewal applications must include "conforming changes to the standard indemnity agreement, 10 CFR 140.92, Appendix B, to account for the expiration term of the proposed renewed license." The staff keeps the same license numbers for the renewed licenses. Therefore, there is no need to make conforming changes to the indemnity agreement, and the requirements of 10 CFR 54.19(b) have been met.

As a result of the staff's review of the applicant's license renewal applications, the staff recommends that the Commission authorize the Director of NRR to make the appropriate findings and then issue the attached renewed operating licenses for McGuire Units 1 and 2, and Catawba Units 1 and 2 for up to an additional 20 years of operation.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections to its content.

RECOMMENDATIONS:

On the basis of the above discussion, the NRC staff recommends that the Commission:

- (1) Authorize the Director of NRR to renew the operating licenses for McGuire Units 1 and 2 and Catawba Units 1 and 2 after making the appropriate findings on safety, and environmental matters.
- (2) Note that the staff will make any necessary conforming changes to the renewed licenses as a result of any pending licensing actions while the Commission is considering the staff's recommendations.

/RA Samuel J. Collins Acting for/

William D. Travers
Executive Director
for Operations

Enclosures:

1. Renewed Facility Operating License for McGuire Nuclear Station, Units 1
2. Renewed Facility Operating License for McGuire Nuclear Station, Units 2
3. Renewed Facility Operating License for Catawba Nuclear Station, Units 1
4. Renewed Facility Operating License for Catawba Nuclear Station, Units 2

REFERENCES:

- (1) "Application to Renew the Operating Licenses of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2," June 13, 2001, Accession No. ML011660301
- (2) "Safety Evaluation Report Related to the License Renewal of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2," January 6, 2003, Accession No. ML023640366
- (3) "Memorandum to Samuel J. Collins on McGuire Units 1 and 2, Catawba Units 1 and 2 License Renewal Application," December 30, 2002, Accession No. ML023640303
- (4) "Safety Evaluation Report With Open Items Related to the License Renewal of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2," August 14, 2002, Accession No. ML022260949
- (5) "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 8, Regarding McGuire Nuclear Station, Units 1 and 2," NUREG-1437, Supplement 8, December 24, 2002, Accession No. ML023600266; and "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 9, Regarding Catawba Nuclear Station, Units 1 and 2," NUREG-1437, Supplement 9, December 24, 2002, Accession No. ML023600046

RECOMMENDATIONS:

On the basis of the above discussion, the NRC staff recommends that the Commission:

- (1) Authorize the Director of NRR to renew the operating licenses for McGuire Units 1 and 2 and Catawba Units 1 and 2 after making the appropriate findings on safety, and environmental matters.
- (2) Note that the staff will make any necessary conforming changes to the renewed licenses as a result of any pending licensing actions while the Commission is considering the staff's recommendations.

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1. Renewed Facility Operating License for McGuire Nuclear Station, Units 1
2. Renewed Facility Operating License for McGuire Nuclear Station, Units 2
3. Renewed Facility Operating License for Catawba Nuclear Station, Units 1
4. Renewed Facility Operating License for Catawba Nuclear Station, Units 2

REFERENCES:

- (1) "Application to Renew the Operating Licenses of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2," June 13, 2001, Accession No. ML011660301
- (2) "Safety Evaluation Report Related to the License Renewal of McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2," January 6, 2003, Accession No. ML023640366
- (3) "Memorandum to Samuel J. Collins on McGuire Units 1 and 2, Catawba Units 1 and 2 License Renewal Application," December 30, 2002, Accession No. ML023640303
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DUKE ENERGY CORPORATION

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-9

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. NPF-9 issued on June 12, 1981, has now found that:
 - A. The application for renewed operating license filed by the Duke Energy Corporation (Duke or 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. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21 (c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the McGuire Nuclear Station, Unit 1 (facility or plant), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - 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 renewed 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 renewed operating 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 renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;

Renewed License No. NPF-9
Enclosure 1

- 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 Renewed 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; and,
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating 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 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 Renewed Facility Operating License No. NPF-9 which is hereby issued to the Duke Energy Corporation to read as follows:
- A. This renewed operating 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 Updated 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:
 - (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 the renewed operating 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 Updated 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;

- (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 renewed operating 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. 217, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than June 12, 2021, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

(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 Updated Final Safety Analysis Report 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:

Duke 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) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 200, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

(6) Antitrust Conditions

The license shall comply with the antitrust conditions delineated in Appendix C of this renewed operating license.

D. Physical Protection

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 12, as revised per 10 CFR 50.54(p). The plan which does not contain safeguards information is entitled "Nuclear Security Training and Qualification Plan," Revision 6, as revised per 10 CFR 50.54(p). Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

- E. The licensee shall report any violations of the requirements contained in Section 2 Items C.(1), C.(4) and D of this renewed operating 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 follow-up report within 14 days.
 - F. 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.
 - G. 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.
4. This renewed operating license is effective as of the date of issuance and shall expire at midnight on June 12, 2041.

FOR THE NUCLEAR REGULATORY COMMISSION

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachment:

1. Appendix A - Technical Specifications
2. Appendix B - Additional Conditions
3. Appendix C - Antitrust Conditions

Date of Issuance:

DUKE ENERGY CORPORATION

DOCKET NO. 50-370

MCGUIRE NUCLEAR STATION, UNIT 2

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-17

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. NPF-17 issued on March 3, 1983, has now found that:
 - A. The application for renewed operating license filed by the Duke Energy Corporation (Duke or 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. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21 (c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the McGuire Nuclear Station, Unit 2 (facility or plant), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - 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 renewed 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 qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

Renewed License No. NPF-17
Enclosure 2

- 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 renewed operating 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 Renewed 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; and,
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating 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, Renewed Facility Operating License No. NPF-17 is hereby issued to the Duke Energy Corporation to read as follows:
- A. This renewed operating 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 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 Updated 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:
 - (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 renewed operating 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 Updated 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;
 - (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 renewed operating 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. 199, are hereby incorporated into renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than March 3, 2023, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59, and otherwise complies with the requirements in that section.

(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 Updated Final Safety Analysis Report 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) 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.

(6) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 181, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

(7) Antitrust Conditions

The licensee shall comply with the antitrust conditions delineated in Appendix C to this renewed operating license.

D. Physical Protection

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 12, as revised per 10 CFR 50.54 (p). The plan which does not contain safeguards information is entitled, "Nuclear Security Training and Qualification Plan," Revision 6, as revised per 10 CFR 50.54 (p). Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

- E. The licensee shall report any violation of the requirements contained in Section 2 Items C.(1), C.(4), C.(5) and D of this renewed operating license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the NRC Regional Administrator, Region II, or his designate, no later than the first working day following the violation, with a written followup report within 14 days;
- F. 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;
- G. 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 renewed operating 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

- H. 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.
3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on March 3, 2043.

FOR THE NUCLEAR REGULATORY COMMISSION

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachment:

- 1. Appendix A - Technical Specifications
- 2. Appendix B - Additional Conditions
- 3. Appendix C - Antitrust Conditions

Date of Issuance:

DUKE ENERGY CORPORATION
NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION
SALUDA RIVER ELECTRIC COOPERATIVE, INC.
DOCKET NO. 50-413
CATAWBA NUCLEAR STATION, UNIT 1
RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-35

1. The U.S. Nuclear Regulatory Commission (Commission) having previously made the findings set forth in License No. NPF-35 issued on January 17, 1985, has now found that:
 - A. The application for renewed operating license filed by the Duke Energy Corporation acting for itself, North Carolina Electric Membership Corporation, and Saluda River Electric Cooperative, Inc., (the licensees) 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. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for Catawba Nuclear Station, Unit 1 (facility or plant), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - 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 renewed 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;

Renewed License No. NPF-35
Enclosure 3

- E. Duke Energy Corporation* is technically qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter 1 (except as exempted from compliance in Section 2.D. below);
 - F. The licensees have 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 renewed operating 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 Renewed Facility Operating License No. NPF-35 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied, and;
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating 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 Partial Initial Decisions issued by the Atomic Safety and Licensing Boards dated June 22, September 18, and November 27, 1984, regarding this facility and satisfaction of conditions therein imposed, except as hereinafter set forth, and the Commission's vote on January 17, 1985, Facility Operating License No. NPF-31 issued on December 6, 1984, superseded by Facility Operating License No. NPF-35 issued on January 17, 1985, is superseded by Renewed Facility Operating License No. NPF-35, hereby issued to the Duke Energy Corporation, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc., to read as follows:
- A. This renewed operating license applies to the Catawba Nuclear Station, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by the Duke Energy Corporation, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc. The facility is located on the licensees' site in York County, South Carolina, on the shore of Lake Wylie approximately 6 miles north of Rock Hill, South Carolina, and is described in Duke Energy Corporation's Updated 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 is authorized to act as agent for the North Carolina Electric Membership Corporation and the Saluda River Electric Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- (1) Duke Energy Corporation, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (2) North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc., to possess the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (3) Duke Energy Corporation, 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 Updated Final Safety Analysis Report, as supplemented and amended;
 - (4) Duke Energy Corporation, 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;
 - (5) Duke Energy Corporation, 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;
 - (6) Duke Energy Corporation, 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 the facility authorized herein, and;
 - (7) Duke Energy Corporation, 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 Oconee Nuclear Station, Units 1, 2 and 3.
- C. This renewed operating 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

Duke Energy Corporation is authorized to operate the facility at reactor core full steady state power level of 3411 megawatts thermal (100%) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 209, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Technical Specifications.

(3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than December 6, 2024, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

(4) Antitrust Conditions

Duke Energy Corporation shall comply with the antitrust conditions delineated in Appendix C to this renewed operating license.

- (5) Fire Protection Program (Section 9.5.1, SER, SSER #2, SSER #3, SSER #4, SSER #5)*

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report, as amended, for the facility and as approved in the SER through Supplement 5, 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.

- (6) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 180, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

- D. The facility requires exemptions from certain requirements of Appendix J to 10 CFR Part 50, as delineated below and pursuant to evaluations contained in the referenced SER and SSERs. These include, (a) partial exemption from the requirement of paragraph III.D.2(b)(ii) of Appendix J, the testing of containment airlocks at times when the containment integrity is not required (Section 6.2.6 of the SER, and SSERs # 3 and #4), (b) exemption from the requirement of paragraph III.A.(d) of Appendix J, insofar as it requires the venting and draining of lines for type A tests (Section 6.2.6 of SSER #3), and (c) partial exemption from the requirements of paragraph III.B of Appendix J, as it relates to bellows testing (Section 6.2.6 of the SER and SSER #3). These exemptions are authorized by law, will not present an undue risk to the public health and safety, are consistent with the common defense and security, and are consistent with certain special circumstances as discussed in the referenced SER and SSERs. These exemptions are, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

*The parenthetical notation following the title of this renewed operating license condition denotes the section of the Safety Evaluation Report and/or its supplement wherein this renewed license condition is discussed.

E. Physical Protection

Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved nuclear security and contingency, and guard training and qualification plans including amendments made pursuant to provisions of the Miscellaneous Amendment 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," as revised through April 18, 1996. The plan which does not contain safeguards information is entitled "Nuclear Security Training and Qualification Plan," as revised through April 19, 1996. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. Reporting to the Commission

Except for Item 2.C.(2), Duke Energy Corporation shall report any violations of the requirements contained in Section 2.C. of this renewed operating license in the following manner: initial notification shall be made within twenty-four (24) hours to the NRC Operations Center via the Emergency Notification System with written follow-up within 30 days in accordance with the procedures described in 10 CFR 50.73 (b), (c) and (e).

G. The licensees 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.

3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on _____, 2043.

FOR THE NUCLEAR REGULATORY COMMISSION

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A – Technical Specifications
2. Appendix B – Additional Conditions
3. Appendix C – Antitrust Conditions

Date of Issuance:

Renewed License No. NPF-35

DUKE ENERGY CORPORATION

NORTH CAROLINA MUNICIPAL POWER AGENCY NO. 1

PIEDMONT MUNICIPAL POWER AGENCY

DOCKET NO. 50-414

CATAWBA NUCLEAR STATION, UNIT 2

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-52

1. The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. NPF-52 issued on May 15, 1986, has now found that:
 - A. The application for renewed operating license filed by the Duke Energy Corporation acting for itself, North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency (the licensees) 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. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for Catawba Nuclear Station, Unit 2 (facility or plant), and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
 - 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 renewed 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

Renewed License No. NPF-52
Enclosure 4

Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

- E. Duke Energy Corporation* is technically qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The licensees have 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 renewed operating 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 Renewed Facility Operating License No. NPF-52 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied, and;
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating 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 July 26, 1985, and the November 21, 1985, affirmations by the Atomic Safety and Licensing Appeal Board of the Partial Initial Decisions issued by the Atomic Safety and Licensing Boards dated June 22, September 18, and November 27, 1984, regarding this facility and satisfaction of conditions therein imposed, and pursuant to approval by the Nuclear Regulatory Commission at a meeting held on May 14, 1986, Facility Operating License No. NPF-48, issued on February 24, 1986, superseded by Facility Operating License No. NPF-52 issued on May 15, 1986, is superseded by Renewed Facility Operating License No. NPF-52, hereby issued to the Duke Energy Corporation, the North Carolina Municipal Power Agency No. 1, and Piedmont Municipal Power Agency to read as follows:

*Duke Energy Corporation is authorized to act as agent for the North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

- A. This renewed operating license applies to the Catawba Nuclear Station, Unit 2, a pressurized water reactor and associated equipment (the facility) owned by the North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency and operated by Duke Energy Corporation. The facility is located on the licensees' site in York County, South Carolina, on the shore of Lake Wylie approximately 6 miles north of Rock Hill, South 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:
- (1) Duke Energy Corporation, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (2) North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency, pursuant to the Act and 10 CFR Part 50, to possess the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (3) Duke Energy Corporation, 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;
 - (4) Duke Energy Corporation, 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;
 - (5) Duke Energy Corporation, 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;
 - (6) Duke Energy Corporation, 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 the facility authorized herein; and

- (7) Duke Energy Corporation, 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 Oconee Nuclear Station, Units 1, 2, and 3.
- C. This renewed operating 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

Duke Energy Corporation is authorized to operate the facility at a reactor core full steady state power level of 3411 megawatts thermal (100%) in accordance with the conditions specified herein.
 - (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 203, which are attached hereto, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Technical Specifications.
 - (3) Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on December 16, 2002, describes certain future activities to be completed before the period of extended operation. Duke shall complete these activities no later than February 24, 2026, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on December 16, 2002, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed operating license. Until that update is complete, Duke may make changes to the programs described in such supplement without prior Commission approval, provided that Duke evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

(4) Antitrust Conditions

Duke Energy Corporation shall comply with the antitrust conditions delineated in Appendix C to this renewed operating license.

(5) Fire Protection Program (Section 9.5.1, SER, SSER #2, SSER #3, SSER #4, SSER #5)*

Duke Energy Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report, as amended, for the facility and as approved in the SER through Supplement 5, 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.

(6) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 172, are hereby incorporated into this renewed operating license. Duke Energy Corporation shall operate the facility in accordance with the Additional Conditions.

- D. The facility requires exemptions from certain requirements of Appendix J to 10 CFR Part 50, as delineated below, and pursuant to evaluations contained in the referenced SER and SSER. These include: (a) partial exemption from the requirement of paragraph III.D.2(b)(ii) of Appendix J, the testing of containment airlocks at times when the containment integrity is not required (Section 6.2.6 of SSER #5), (b) exemption from the requirement of paragraph III.A.1(d) of Appendix J, insofar as it requires the venting and draining of lines for type A tests (Section 6.2.6 of SSER #5), and (c) partial exemption from the requirements of paragraph III.B of Appendix J, as it relates to bellows testing (Section 6.2.6 of the SER and SSER #5). These exemptions are authorized by law, will not present an undue risk to the public health and safety, are consistent with the common defense and security, and are consistent with certain special circumstances, as

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

discussed in the referenced SER and SSER. These exemptions are, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. Physical Protection

Duke Energy Corporation shall fully implement and maintain in effect all provisions of the Commission-approved nuclear security and contingency, and 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," with revisions submitted through April 18, 1996. The plan which does not contain safeguards information is entitled "Nuclear Security Training and Qualification Plan," with revisions submitted through April 19, 1996. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. Reporting to the Commission

Except for Item 2.C.(2), Duke Energy Corporation shall report any violations of the requirements contained in Section 2.C of this renewed operating license in the following manner: initial notification shall be made within twenty-four (24) hours to the NRC Operations Center via the Emergency Notification System with written follow-up within 30 days in accordance with the procedures described in 10 CFR 50.73 (b), (c), and (e).

G. The licensees 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.

3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on _____, 2043.

FOR THE NUCLEAR REGULATORY COMMISSION

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A – Technical Specifications
2. Appendix B – Additional Conditions
3. Appendix C – Antitrust Conditions

Date of Issuance: