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

DUKE ENERGY CAROLINAS, LLC

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-55

The U.S. Nuclear Regulatory Commission (Commission), having previously made the findings set forth in License No. DPR-55 issued on July 19, 1974, has now found that:

a. The application to renew License No. DPR-55 filed by Duke Energy Corporation* complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and 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 license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the Oconee Nuclear Station, Unit 3 (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. There is reasonable assurance: (i) that the activities authorized by this renewed 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 applicable regulations set forth in 10 CFR Chapter I, except as exempted from compliance;

d. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements;"

e. The renewal of this license will not be inimical to the common defense and security or the health and safety of the public; and

f. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and considering available alternatives, the renewal of this license is in accordance with 10 CFR Part 51 and all applicable requirements have been satisfied.

---

* Duke Energy Corporation converted to Duke Power Company LLC on April 3, 2006 and was re-named Duke Energy Carolinas, LLC as of October 1, 2006. Duke Energy Carolinas, LLC is the owner and operator of Oconee Nuclear Station, Unit 3. References to the "licensee" are to Duke Energy Carolinas, LLC.

On the basis of the foregoing findings regarding this facility, Facility Operating License No. DPR-55, issued on July 19, 1974, is superseded by Renewed Facility Operating License No. DPR-55, which is hereby issued to Duke Energy Carolinas, LLC, to read as follows:

1. This license applies to the Oconee Nuclear Station, Unit 3, a pressurized water reactor and associated equipment (the facility) owned and operated by Duke Energy Carolinas, LLC. The facility is located in eastern Oconee County, about eight miles northeast of Seneca, South Carolina, and is described in the "Updated Final Safety Analysis Report" (UFSAR) as supplemented and amended and the Environmental Report as supplemented and amended.

2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Carolinas, LLC (the licensee):

   A. Pursuant to Section 104b of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location on the Oconee Nuclear Station Site in accordance with the procedures and limitations set forth in this license;

   B. 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 UFSAR as supplemented and amended;

   C. Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess, and use at any time 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;

   D. 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 and equipment calibration or associated with radioactive apparatus or components;

   E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Oconee Nuclear Station, Units 1, 2 and 3.

3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I, Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50 and Section 70.32 of Part 70; 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:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 401 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. This license is subject to the following antitrust conditions:

Applicant 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, applicant will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to applicant. There are net benefits in a transaction if applicant recovers the cost of the transaction (as defined in ¶1 (d) hereof) and there is no demonstrable net detriment to applicant 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 applicant 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 applicant'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) Applicant 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 applicant'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. Applicant 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 requirement. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other party(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 applicant'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 exchanges 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) applicant 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) applicant will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.

3. Applicant 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, nondisplacement energy, and emergency capacity and energy. Applicant will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable applicant to recover the full costs allocable to such transaction.

4. Applicant 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, applicant 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 ¶1(b) hereof (either alone or through combination with other), applicant will assist in facilitating the necessary transition through the sale of partial requirements 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 applicant's costs. Applicant will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by applicant when such municipality lawfully engages in the distribution of electric power at retail.

5. (a) Applicant 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 applicant'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 applicant'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 applicant for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements.

(b) Applicant 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 applicant 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 compensates applicant for its cost. In carrying out this subparagraph (b), however, applicant shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to applicant, or (b) which could be constructed by the requesting entity(ies) without duplicating any portion of applicant's existing transmission lines, or (c) which would jeopardize applicant'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, applicant will discuss load projections and system development plans with any neighboring entity(ies).

7. When applicant'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, applicant will notify all neighboring entities, including distribution systems with peak loads smaller than applicant's, that applicant 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. Applicant 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 applicant 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, applicant 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 contract 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 applicant's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

D. Fire Protection

Duke Energy Carolinas, LLC, shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the revised licensee's amendment request dated April 14, 2010, supplemented by letters dated: January 30, 2009, February 9, 2009, February 23, 2009, May 31, 2009, August 3, 2009, September 29, 2009, November 30, 2009, September 13, 2010, September 27, 2010, October 14, 2010, November 19, 2010, and December 22, 2010, approved in the NRC safety evaluation (SE) dated December 29, 2010. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

Risk-Informed Changes that May Be Made Without Prior NRC Approval:

Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

Due to the need for the licensee to have an industry full-scope peer review of its Fire PRA and to resolve the findings of that peer review, the licensee is not allowed to self-approve quantitative risk-informed fire protection program changes, except those implementation items needing a plant change evaluation as part of the Transition License Condition below. To enable self-approval of quantitative risk-informed fire protection program changes, the licensee will need to make a 10 CFR 50.90 submittal to the NRC requesting to change this license condition. The submittal should describe how the licensee has addressed each of the peer review findings and justify the adequacy of its Fire PRA for use in this application.

Other Changes that May Be Made Without Prior NRC Approval:

1) Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

Prior NRC review and approval are not required for changes to the NFPA 805, Chapter 3 fundamental fire protection program elements and design requirements for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is functionally equivalent or adequate for the hazard. The licensee may use an engineering evaluation to demonstrate that a change to an NFPA 805, Chapter 3 element is functionally equivalent to the

corresponding technical requirement. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.

The licensee may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3 elements are acceptable because the alternative is "adequate for the hazard." Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3 for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard. The four specific sections of NFPA 805, Chapter 3 are as follows:

- "Fire Alarm and Detection Systems" (Section 3.8);
- "Automatic and Manual Water-Based Fire Suppression Systems" (Section 3.9);
- "Gaseous Fire Suppression Systems" (Section 3.10); and
- "Passive Fire Protection Features" (Section 3.11)

This License Condition does not apply to any demonstration of equivalency under Section 1.7 of NFPA 805.

2) Fire Protection Program Changes that Have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee's fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process as approved in the NRC SE dated December 29, 2010, to determine that certain fire protection program changes meet the minimal risk criterion. The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

Transition License Conditions

1) The licensee shall complete the items described in Section 2.9, Table 2.9-1, "Implementation Items," in the NRC SE dated December 29, 2010, prior to January 1, 2013. Implementation items that result in a risk increase, as part of a plant change evaluation, can be self-approved by the licensee, as long as the overall transition risk remains a decrease (i.e., collective risk increases of transition and implementation are offset by the PSW modification risk decrease).

2) To complete the transition to full compliance with 10 CFR 50.48(c), the licensee shall implement the modifications listed in Section 2.8, Table 2.8.1-1, "Committed Plant Modifications," in the NRC SE dated December 29, 2010.

3) The licensee shall maintain appropriate compensatory measures in place until completion of all modifications and implementation items delineated above.

E. Physical Protection

Duke Energy Carolinas, LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, 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 combined set of plans, which contains safeguards information protected under 10 CFR 73.21, is entitled: "Duke Energy Physical Security Plan" submitted by letter dated September 8, 2004, and supplemented on September 30, 2004, October 15, 2004, October 21, 2004, and October 27, 2004.

Duke Energy Carolinas, LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Duke Energy Carolinas, LLC CSP was approved by License Amendment No. 379, as supplemented by a change approved by License Amendment No. 392.

F. In the update to the UFSAR required pursuant to 10 CFR 50.71(e)(4) scheduled for July, 2001, the licensee shall update the UFSAR to include the UFSAR supplement submitted pursuant to 10 CFR 54.21(d) as revised on March 27, 2000. Until the UFSAR update is complete, the licensee may make changes to the programs described in its UFSAR supplement without prior Commission approval, provided that the licensee evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

G. The licensee's UFSAR supplement submitted pursuant to 10 CFR 54.21(d), as revised on March 27, 2000, describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than February 6, 2013.

H. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:
   1. Pre-defined coordinated fire response strategy and guidance
   2. Assessment of mutual aid fire fighting assets
   3. Designated staging areas for equipment and materials
   4. Command and control
   5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:
1. Protection and use of personnel assets
2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy
7. SFP mitigation measures

(c) Actions to minimize release to include consideration of:
1. Water spray scrubbing
2. Dose to onsite responders

I. Protected Service Water System Seismic Assessment License Condition

Duke Energy Carolinas, LLC (Duke Energy) shall perform a seismic probabilistic risk assessment (SPRA) which includes the Protected Service Water (PSW) system, in accordance with the Electric Power Research Institute (EPRI) Report No. 1025287, "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic," (i.e., the SPID report, November 2012) for the Oconee Nuclear Station (ONS). Duke Energy shall expand the Seismic Equipment List (SEL) to include the PSW system.

4. This renewed license is effective as of the date of issuance and shall expire at midnight on July 19, 2034.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by Roy P. Zimmerman

Roy Zimmerman, Acting Director
Office of Nuclear Reactor Regulation

Attachment:

1) Appendix A - Technical Specifications Renewed License No. DPR-55

Date of Issuance: May 23, 2000

Appendix A: Technical Specifications

Oconee 3 uses the same Appendix A as Oconee 1. Please refer to Oconee 1 for Appendix A (ML052840238).