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10 CFR 50.90

Serial: RA-15-0040
February 1, 2016

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324 / RENEWED LICENSE NOS. DPR-71 AND DPR-62

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-400 / RENEWED LICENSE NO. NPF-63

**SUBJECT: LICENSE AMENDMENT REQUEST – CHANGE IN CORPORATE FORM OF
DUKE ENERGY PROGRESS**

Pursuant to 10 CFR 50.90, Duke Energy Progress, Inc., hereby requests NRC approval of an administrative amendment to the Renewed Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (BSEP), Renewed Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (RNP), and Renewed Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit No. 1 (HNP) to reflect the conversion and name change from Duke Energy Progress, Inc., to Duke Energy Progress, LLC.

As described in the enclosed application, Duke Energy Progress, LLC, will continue to be an electric utility as defined by NRC regulations, and regulated by the Federal Energy Regulatory Commission, the North Carolina Utilities Commission, and the Public Service Commission of South Carolina. The conversion is administrative in nature and no substantive changes to the licensee's arrangements or ability to own, operate, or decommission BSEP, RNP, and HNP will result from the name change. Duke Energy Progress, LLC, will remain subject to cost-of-service ratemaking. No physical changes to the units will be made as a result of the licensee name conversion.

The proposed changes will align the corporate structure of Duke Energy Progress, Inc. with the corporate structure of Duke Energy Carolinas, LLC, thereby providing consistency between the entities.

Attachment 1 provides an evaluation of the proposed change. Marked-up facility operating license pages for the above plants, reflecting the name change proposed in this submittal, are

included as Attachments 2 through 5. Attachment 6 provides a copy of the Limited Liability Company Operating Agreement of Duke Energy Progress, LLC.

The proposed changes have been evaluated in accordance with 10CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c), and it has been determined that the proposed changes involve no significant hazards consideration. The bases for these determinations are included in Attachment 1.

This letter contains no new regulatory commitments and no revision to existing regulatory commitments.

Approval of the proposed amendment is requested by February 1, 2017.

In accordance with 10 CFR 50.91, Duke Energy is notifying the States of North Carolina and South Carolina of this license amendment by transmitting a copy of this letter and attachments to the designated State Officials.

Should you have any questions concerning this letter, or require additional information, please contact Art Zarembo, Manager – Nuclear Fleet Licensing, at 980-373-2062.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

February 1, 2016.

Sincerely,



Regis T. Repko

Senior Vice President – Governance, Projects and Engineering

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Attachments:

1. Evaluation of the Proposed Change
2. Proposed BSEP Unit 1 Facility Operating License Changes (Mark-up)
3. Proposed BSEP Unit 2 Facility Operating License Changes (Mark-up)
4. Proposed HNP Facility Operating License Changes (Mark-up)
5. Proposed RNP Facility Operating License Changes (Mark-up)
6. Limited Liability Company Operating Agreement of Duke Energy Progress, LLC (DEP LLC)

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cc: USNRC Region II

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RP Section (NC)

S. E. Jenkins, Manager, Radioactive and Infectious Waste Management (SC)
Chairman, North Carolina Utilities Commission

Attachment 1
Evaluation of the Proposed Change

Subject: License Amendment Request – Change in Corporate Form of Duke Energy Progress

1. BACKGROUND AND REQUEST
2. PURPOSE
3. REGULATORY EVALUATION
 - 3.1 Applicable Regulatory Requirements/Criteria
 - 3.2 Precedent
 - 3.3 No Significant Hazards Consideration Determination
 - 3.4 Conclusions
4. ENVIRONMENTAL CONSIDERATION
5. REFERENCES

1. BACKGROUND AND REQUEST

On August 1, 2015, Duke Energy Progress, Inc. (DEP), converted its form of business organization from a North Carolina Corporation to a North Carolina limited liability company (LLC). Upon the conversion, Duke Energy Progress, Inc., changed its name to Duke Energy Progress, LLC. In connection with the conversion, the former Articles of Incorporation and By-Laws were terminated and Duke Energy Progress, LLC, adopted Articles of Organization including Articles of Conversion, a Plan of Conversion, and a Limited Liability Company Operating Agreement.

DEP hereby requests NRC approval of an administrative amendment to the Renewed Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (BSEP), Renewed Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (RNP), and Renewed Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit No. 1 (HNP) to revise the corporate name of the licensee from Duke Energy Progress, Inc., to Duke Energy Progress, LLC.

Section 55-11A-13 of the North Carolina Business Corporation Act provides: "When the conversion takes effect, all liabilities of the converting domestic corporation continue as liabilities of the resulting business entity." (Reference 1). In addition, Section 57D-9-23 of the North Carolina Limited Liability Company Act states: "The converting entity ceases its prior form of organization and continues in existence as the surviving entity. The title to all real estate and other property owned by the converting entity continues to be vested in the surviving entity without reversion or impairment. All liabilities of the converting entity continue as liabilities of the surviving entity." (Reference 2).

Duke Energy Progress, LLC, will remain subject to cost-of-service ratemaking. The conversion of Duke Energy Progress, Inc., does not affect the financial qualifications of the NRC licensees. No physical changes to the units will be made as a result of the licensee name conversion. Nor will any technical changes be made to the operating procedures or the way the units are managed as a result of the licensee name conversion.

2. PURPOSE

In the wake of Duke Energy Corporation's (Duke Energy) acquisition of Progress Energy, Inc. (Progress Energy), and the disposition of certain Midwest operations, Duke Energy determined that a company-wide initiative should be undertaken to reduce organizational complexity and to identify process improvements. Certain Duke Energy subsidiary companies, including Duke Energy Progress, Inc., were converted into limited liability companies to modernize and simplify Duke Energy's domestic structure and provide consistency between legacy Duke Energy and legacy Progress Energy entities.

3. REGULATORY EVALUATION

3.1 Applicable Regulatory Requirements/Criteria

On July 31, 2015, Duke Energy Progress, Inc., filed with the North Carolina Secretary of State the Articles of Organization including Articles of Conversion which are required under North Carolina Limited Liability Company Act Sections 57D-2-21, 57D-9-20, and 57D-9-22 to effect the conversion of a corporation to a limited liability company.

On August 4, 2015, Duke Energy Progress, Inc., filed the Articles of Organization including Articles of Conversion, Plan of Conversion and Limited Liability Company Operating Agreement as Exhibits 3.1, 3.2, and 3.3 to a Form 8-K with the Securities and Exchange Commission.

3.2 Precedent

The NRC has previously approved changes similar to the proposed changes in this license amendment request. Entergy Nuclear Operations, Inc., received approval for the planned conversion of Entergy Nuclear Holdings Company from a corporation to a limited liability company (References 3 and 4).

3.3 No Significant Hazards Consideration Determination

Duke Energy Progress, Inc., is requesting an administrative amendment to the Renewed Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (BSEP), Renewed Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (RNP), and Renewed Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit No. 1 (HNP) to reflect the conversion and name change from Duke Energy Progress, Inc., to Duke Energy Progress, LLC.

Duke Energy Progress, Inc., has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes do not involve a significant increase in the probability of any accident previously evaluated because no accident initiators or assumptions are affected. The proposed conversion and name change is administrative in nature and has no direct effect on any plant system, plant personnel qualifications, or the operation and maintenance of BSEP, RNP, and HNP.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated because the proposed name change is administrative in nature and does not involve new failure mechanisms, malfunctions, or accident initiators. The proposed changes have no direct effect on any plant system, plant personnel qualifications, or operation and maintenance of BSEP, RNP, and HNP.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed changes will not involve a significant reduction in the margin of safety

because the proposed changes do not involve changes to the initial conditions contributing to accident severity or consequences, or reduce response or mitigation capabilities. The proposed name change is administrative in nature and has no direct effect on any plant system, plant personnel qualifications, or operation and maintenance of BSEP, RNP, and HNP.

Based on the above, Duke Energy concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

3.4 Conclusions

In conclusion, based on the considerations discussed above: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) such activities will be conducted in compliance with the Commission’s regulations; and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

4. ENVIRONMENTAL CONSIDERATION

Duke Energy Progress, Inc., has reviewed the proposed license amendment for environmental considerations. The proposed license amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion from an environmental assessment as set forth in 10 CFR 51.22(c)(10), “Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review.” Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

5. REFERENCES

1. North Carolina Business Corporation Act Section 55-11A-13
2. North Carolina Limited Liability Company Act Chapter 57D
3. Letter from D. V. Pickett (USNRC) to J. F. McCann (Entergy), *Indian Point Nuclear Generating Unit Nos. 1 and 2, Palisades Nuclear Plant, Vermont Yankee Nuclear Power Station, and Big Rock Point – Threshold Review for Change in Corporate Form of Entergy Nuclear Holding Company (TAC Nos. MF3218, MF3220, and MF3221)*, Accession No. ML15176A270, June 29, 2015
4. Letter from J. G. Giitter (USNRC) to M. R. Kansler (Entergy), *Request for Threshold Determination Under 10 CFR 50.80 – Big Rock Point, James A. Fitzpatrick Nuclear Power Plant, Indian Point Nuclear Generating Unit Nos. 1, 2, and 3, Palisades Nuclear Plant, Pilgrim Nuclear Power Station, and Vermont Yankee Nuclear Power Station (TAC Nos. ME1896, ME1897, ME1898, ME1899, ME1900, ME1901, ME1902, and ME1903)*, Accession No. ML092870647, October 29, 2009

Attachment 2 to
RA-15-0040

Attachment 2

**Proposed BSEP Unit 1 Facility Operating License Changes
(Mark-up)**

DUKE ENERGY PROGRESS, INC.

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-71

1. The Nuclear Regulatory Commission (NRC or the Commission) having previously made the findings set forth in License No. DPR-71 issued on September 8, 1976, has now found that:
 - A. The application for license filed by Carolina Power & Light Company* (CP&L or the licensee) 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. Construction of the Brunswick Steam Electric Plant, Unit 1 (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-68 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. 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 facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
 - D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - E. 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 rules and regulations of the Commission;

* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

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Amendment No. 263

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- F. The licensee is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
 - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - H. 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;
 - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and considering available alternatives, the adverse environmental impacts of license renewal are not so great that preserving the option of license renewal would be unreasonable and the issuance of Renewed Facility Operating License No. DPR-71, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 (formerly Appendix D to Part 50), of the Commission's regulations and all applicable requirements have been satisfied; and
 - J. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, 70.23 and 70.31.
2. Renewed Facility Operating License No. DPR-71 is hereby issued to Duke Energy Progress, Inc. to read as follows:
- A. This license applies to the Brunswick Steam Electric Plant, Unit 1, a boiling water reactor and associated equipment (the facility), owned and operated by Duke Energy Progress, Inc. The facility is located on the Cape Fear River, near Southport in Brunswick County, North Carolina, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 1 through 31) and the "Environmental Report" as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Progress, Inc.
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Brunswick County, North Carolina, in accordance with the procedures and limitations set forth in this renewed license;

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- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source and 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 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Brunswick Steam Electric Plant, Unit Nos. 1 and 2, and H. B. Robinson Steam Electric Plant, Unit No. 2;

(6) Fire Protection

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Duke Energy Progress, ~~Inc.~~ 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 license amendment request dated September 25, 2012, as supplemented by letters dated December 17, 2012; June 28, 2013; July 15, 2013; July 31, 2013; August 29, 2013; September 30, 2013; February 28, 2014; March 14, 2014; April 10, 2014; June 26, 2014; August 15, 2014; August 29, 2014; November 20, 2014; and December 18, 2014; and as approved in the safety evaluation dated January 28, 2015. 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.

(a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk

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assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as built, as operated, and maintained plant; and reflect the operating experience at Brunswick. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

1. 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.
2. Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} /year (yr) for CDF and less than 1×10^{-8} /yr for LERF. 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.

(b) 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 is 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 is 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 safety evaluation dated January 28, 2015, to determine that certain fire protection program changes meet the minimal 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.

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180th day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

C. This renewed 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; and is subject to all applicable provisions 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 steady state reactor core power levels not in excess of 2923 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No 267 are hereby incorporated in the license. Duke Energy Progress, ~~Inc.~~ shall operate the facility in accordance with the Technical Specifications. LLC

For Surveillance Requirements (SRs) that are new in Amendment 203 to Renewed Facility Operating License DPR-71, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 203. For SRs that existed prior to Amendment 203, including SRs with modified acceptance criteria and SRs whose frequency of

No changes to this page

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performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 203.

- (a) Effective June 30, 1982, the surveillance requirements listed below need not be completed until July 15, 1982. Upon accomplishment of the surveillances, the provisions of Technical Specification 4.0.2 shall apply.

Specification 4.3.3.1, Table 4.3.3-1, Items 5.a and 5.b

- (b) Effective July 1, 1982, through July 8, 1982, Action statement "a" of Technical Specification 3.8.1.1 shall read as follows:

ACTION:

- a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within two hours and at least once per 12 hours thereafter; restore at least two offsite circuits and four diesel generators to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

- (3) Deleted by Amendment No. 206.

- D. The licensee 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 plans, which contain Safeguards Information protected under 10 CFR 73.21 are entitled: "Physical Security Plan, Revision 2," and "Safeguards Contingency Plan, Revision 2," submitted by letter dated May 17, 2006, and "Guard Training and Qualification Plan, Revision 0," submitted by letter dated September 30, 2004.

The licensee 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 licensee's CSP was approved by License Amendment No. 258, as supplemented by changes approved by License Amendment Nos. 261 and 265.

- E. This license is subject to the following additional conditions for the protection of the environment:
- a. Deleted per Amendment 54, 3-11-83
- b. Deleted per Amendment 54, 3-11-83
- c. The licensee shall comply with the effluent limitations contained in National Pollutant Discharge Elimination System Permit No. NC0007064

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issued pursuant to Section 402 of the Federal Water Pollution Control Act, as amended.

- F. In accordance with the requirement imposed by the October 8, 1976, order of the United States Court of Appeals for the District of Columbia Circuit in Natural Resources Defense Council v. Nuclear Regulatory Commission, No. 74-1385 and 74-1586, that the Nuclear Regulatory Commission "shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein," the license issued herein shall be subject to the outcome of such proceedings.
- G. Deleted by Amendment No. 206.
- H. This license is effective as of the date of issuance and shall expire at midnight on September 8, 2036.
- I. Deleted per Amendment No. 70 dated 5-25-84.
- J. Deleted per Amendment No. 70 dated 5-25-84.
- K. Deleted by Amendment No. 206.
- L. Power Uprate License Amendment Implementation
The licensee shall complete the following actions as a condition of the approval of the power uprate license amendment (Amendment No. 183):
- (1) Deleted by Amendment No. 206.
 - (2) Deleted by Amendment No. 206.
 - (3) Fuel Pool Decay Heat Evaluation
The decay heat loads and the decay heat removal systems available for each refueling outage shall be evaluated, and bounding or outage specific analyses shall be used for various refueling sequences. Where a bounding engineering evaluation is in place, a refueling specific assessment shall be made to ensure that the bounding case encompasses the specific refueling sequence. In both cases (i.e., bounding or outage specific evaluations), compliance with design basis assumptions shall be verified.
 - (4) Deleted by Amendment No. 206.
 - (5) Deleted by Amendment No. 206.
- M. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L* evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

*On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed License DPR-71
Amendment No. 266

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- N. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, ~~Inc.~~ shall complete these activities no later than September 8, 2016, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.
- O. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.
- P. Mitigation Strategy License Condition
Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:
- (1) 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
 - (2) 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. Spent fuel pool mitigation measures
 - (3) Actions to minimize release to include consideration of:
 1. Water spray scrubbing
 2. Dose to onsite responders
- Q. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

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3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 262, are hereby incorporated into this license. Duke Energy Progress, ~~Inc.~~ shall operate the facility in accordance with the Additional Conditions.

↑ LLC

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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

Attachments:

1. Unit 1 – Technical Specifications – Appendices A and B

Date of Issuance: June 26, 2006

Renewed License No. DPR-71
Amendment No. ~~266~~

APPENDIX A
TO
THE FACILITY OPERATING LICENSE DPR-71

TECHNICAL SPECIFICATIONS FOR
BRUNSWICK STEAM ELECTRIC PLANT
UNIT 1

DUKE ENERGY PROGRESS, ~~INC.~~

 **LLC**

Attachment 3 to
RA-15-0040

Attachment 3

**Proposed BSEP Unit 2 Facility Operating License Changes
(Mark-up)**

DUKE ENERGY PROGRESS, INC.

LLC

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-62

1. The Nuclear Regulatory Commission (NRC or the Commission) having previously made the findings set forth in License No. DPR-62 issued on December 27, 1974, has now found that:
 - A. The application for license filed by Carolina Power & Light Company* (CP&L or the licensee) 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. Construction of the Brunswick Steam Electric Plant, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-67 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. 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 analysis 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 facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
 - D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - E. 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 rules and regulations of the Commission;

* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed License No. DPR-62
Amendment No. 291

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- F. The licensee is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
 - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - H. 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;
 - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Renewed Facility Operating License No. DPR-62 subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50), of the Commission's regulations and all applicable requirements have been satisfied; and
 - J. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, and 70.23 and 70.31.
2. Renewed Facility Operating License No. DPR-62 is hereby issued to Duke Energy Progress, ~~Inc.~~ to read as follows:
- A. This license applies to Brunswick Steam Electric Plant Unit 2, a boiling water reactor and associated equipment (the facility), owned and operated by Duke Energy Progress, ~~Inc.~~ The facility is located on the Cape Fear River, near Southport in Brunswick County, North Carolina, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 1 through 29) and the "Environmental Report" as supplemented and amended (Supplements 1 through 7).
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Progress, ~~Inc.~~
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Brunswick County, North Carolina, in accordance with the procedures and limitations set forth in this renewed license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

Renewed License No. DPR-62
Amendment No. 295

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- (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, and special nuclear materials 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 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Brunswick Steam Electric Plant, Unit Nos. 1 and 2, and H. B. Robinson Steam Electric Plant, Unit No. 2.

(6) Fire Protection

 LLC

Duke Energy Progress, ~~Inc.~~ 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 license amendment request dated September 25, 2012, as supplemented by letters dated December 17, 2012; June 28, 2013; July 15, 2013; July 31, 2013; August 29, 2013; September 30, 2013; February 28, 2014; March 14, 2014; April 10, 2014; June 26, 2014; August 15, 2014; August 29, 2014; November 20, 2014; and December 18, 2014; and as approved in the safety evaluation dated January 28, 2015. 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.

(a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk

Renewed License No. DPR-62
Amendment No. 294

assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as built, as operated, and maintained plant; and reflect the operating experience at Brunswick. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

1. 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.
2. Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} /year (yr) for CDF and less than 1×10^{-8} /yr for LERF. 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.

(b) 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 is 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 is 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 safety evaluation dated January 28, 2015, to determine that certain fire protection program changes meet the minimal 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.

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except Item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180th day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

C. This renewed 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:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2923 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 295, are hereby incorporated in the license. Duke Energy Progress, Inc. shall operate the facility in accordance with the Technical Specifications.

LLC

For Surveillance Requirements (SRs) that are new in Amendment 233 to Renewed Facility Operating License DPR-62, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 233. For SRs that existed prior to Amendment 233,

including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 233.

- (a) The end of the current surveillance period for the surveillance requirements listed below may be extended beyond the time limit specified by Technical Specification 4.0.2a. After May 1, 1982, the plant shall not be operated in Conditions 1, 2, or 3 until the surveillance requirements listed below have been completed. Upon accomplishment of the surveillances, the provisions of Technical Specification 4.0.2a shall apply.

Specification 4.3.1.1; Table 4.3.1-1, items 9 & 10
4.3.1.2
4.3.1.3; Table 3.3.1-2, item 10
4.3.2.1; Table 4.3.2-1, items 1.d & 1.f
4.3.2.3; Table 3.3.2-3, item 1.a.1
4.3.3.2; Table 4.3.3-1, items 4.c & 4.f
4.5.2.a
4.8.1.1.2.d.2
4.8.1.1.2.d.3
4.8.1.1.2.d.6
4.8.1.1.2.d.7

- (b) Effective June 30, 1982, the surveillance requirements listed below need not be completed until restart for Cycle 5 or July 15, 1982, whichever occurs first. The unit shall not be operated in Conditions 1, 2 or 3 until the surveillance requirements listed below have been completed. Upon accomplishment of the surveillances, the provisions of Technical Specification 4.0.2 shall apply.

Specification 4.3.3.1 Table 4.3.3-1, Items 5.a and 5.b.

- (c) Effective July 1, 1982, through July 8, 1982, Action statement "a" of Technical Specification 3.8.1.1 shall read as follows:

ACTION:

- a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within two hours and at least once per 12 hours thereafter; restore at least two offsite circuits and four diesel generators to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

- (3) Deleted by Amendment No. 236.
 - (4) Equalizer Valve Restriction

The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operation, except for one bypass valve which is left open to prevent pressure build-up due to ambient and conduction heating of the water between the equalizer valves.
 - (5) Deleted by Amendment No. 233.
 - (6) The licensee 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 plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Physical Security Plan, Revision 2," and "Safeguards Contingency Plan, Revision 2," submitted by letter dated May 17, 2006, and "Guard Training and Qualification Plan, Revision 0," submitted by letter dated September 30, 2004.

The licensee 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 licensee's CSP was approved by License Amendment No. 286, as supplemented by changes approved by License Amendment Nos. 289 and 293.
- D. This license is subject to the following additional conditions for the protection of the environment:
- a. Deleted per Amendment 79, 3-11-83
 - b. Deleted per Amendment 79, 3-11-83
 - c. Deleted per Amendment 79, 3-11-83
 - d. The licensee shall comply with the effluent limitations contained in National Pollutant Discharge Elimination System Permit No. NC0007064 issued pursuant to Section 402 of the Federal Water Pollution Control Act, as amended.
- E. This license is effective as of the date of issuance and shall expire at midnight on December 27, 2034.
- F. Deleted per Amendment No. 98 dated 5-25-84.
- G. Deleted per Amendment No. 98 dated 5-25-84.
- H. Deleted by Amendment No. 236.
- I. Power Uprate License Amendment Implementation

The licensee shall complete the following actions as a condition of the approval of the power uprate license amendment (Amendment No. 214):

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- (1) Deleted by Amendment No. 236.
- (2) Deleted by Amendment No. 236.
- (3) Fuel Pool Decay Heat Evaluation

The decay heat loads and the decay heat removal systems available for each refueling outage shall be evaluated, and bounding or outage specific analyses shall be used for various refueling sequences. Where a bounding engineering evaluation is in place, a refueling specific assessment shall be made to ensure that the bounding case encompasses the specific refueling sequence. In both cases (i.e., bounding or outage specific evaluations), compliance with design basis assumptions shall be verified.

- (4) Deleted by Amendment No. 236.
- (5) Deleted by Amendment No. 236.

J. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L* evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

K. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, Inc. shall complete these activities no later than December 27, 2014, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

LLC

L. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed License No. DPR-62
Amendment No. 294

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M. Mitigation Strategy License Condition

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

- (1) 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
- (2) 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. Spent fuel pool mitigation measures
- (3) Actions to minimize release to include consideration of:
 1. Water spray scrubbing
 2. Dose to onsite responders

N. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 290, are hereby incorporated into this license. Duke Energy Progress, ~~Inc.~~ shall operate the facility in accordance with the Additional Conditions. 

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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

Attachments:

1. Unit 2 – Technical Specifications – Appendices A and B

Date of Issuance: June 26, 2006

Renewed License No. DPR-62
Amendment No. ~~294~~

APPENDIX A
TO
THE FACILITY OPERATING LICENSE DPR-62

TECHNICAL SPECIFICATIONS FOR
BRUNSWICK STEAM ELECTRIC PLANT
UNIT 2

DUKE ENERGY PROGRESS, ~~INC.~~

 **LLC**

Attachment 4 to
RA-15-0040

Attachment 4

**Proposed HNP Facility Operating License Changes
(Mark-up)**

DUKE ENERGY PROGRESS, INC.

LLC

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for renewal of the license filed by the Carolina Power & Light Company (CP&L) for itself complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Shearon Harris Nuclear Power Plant, Unit 1, (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-158 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. 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 analysis 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 facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
 - D. 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);
 - E. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

Renewed License No. NPF-63
Amendment No. 147

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- LLC
- F. Duke Energy Progress, Inc. is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - H. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - I. 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-63, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
 - J. The receipt, possession and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70.
2. Based on the foregoing findings and the Partial Initial Decisions issued by the Atomic Safety and Licensing Board dated February 20, 1985, August 20, 1985, December 11, 1985, and April 28, 1986, regarding this facility and pursuant to approval by the Nuclear Regulatory Commission at a meeting on January 8, 1987, Facility Operating License No. NPF-63, which supersedes the license for fuel loading and low power testing, License No. NPF-53 issued on October 24, 1986, is hereby issued to Duke Energy Progress, Inc. (the licensee) as follows:
- A. This license applies to the Shearon Harris Nuclear Power Plant, Unit 1, a pressurized water reactor and associated equipment (the facility) owned and operated by Duke Energy Progress, Inc. The facility is located on the licensee's site in Wake and Chatham Counties, North Carolina, approximately 16 miles southwest of the nearest boundary of Raleigh, and is described in its Final Safety Analysis Report, as supplemented and amended, and in its Environmental Report, as supplemented and amended;

LLC

*Duke Energy Progress, Inc. has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

Renewed License No. NPF-63
Amendment No. 147

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) Pursuant to ~~Section~~ ^{LLC} 103 of the Act and 10 CFR Part 50, Duke Energy Progress, ~~Inc.~~ to possess, use, and operate the facility at the designated location in Wake and Chatham Counties, North Carolina, in accordance with the procedures and limitations set forth in this license;
- (2) Deleted.
- (3) Pursuant to the Act and 10 CFR Part 70, Duke Energy Progress, ~~Inc.~~ ^{LLC} 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) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, ~~Inc.~~ ^{LLC} to receive, possess, and use at any time any byproduct, source and special nuclear material such 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) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, ~~Inc.~~ ^{LLC} 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) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, ~~Inc.~~ ^{LLC} to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein;
- (7) Pursuant to the Act and 10 CFR Parts 30 and 40, Duke Energy Progress, ~~Inc.~~ ^{LLC} to receive, possess and process for release or transfer to the Shearon Harris site such byproduct material as may be produced by the Shearon Harris Energy and Environmental Center;
- (8) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, ~~Inc.~~ ^{LLC} to receive and possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Brunswick Steam Electric Plant, Units 1 and 2, and H. B. Robinson Steam Electric Plant, Unit 2.

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C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.

(1) Maximum Power Level

LLC

Duke Energy Progress, Inc. is authorized to operate the facility at reactor core power levels not in excess of 2948 megawatts thermal (100 percent rated core power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 147, are hereby incorporated into this license. Duke Energy Progress, Inc. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

LLC

(3) Antitrust Conditions

LLC

Duke Energy Progress, Inc. shall comply with the antitrust conditions delineated in Appendix C to this license.

(4) Initial Startup Test Program (Section 14)¹

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

¹ The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

- 4a -

(5) Steam Generator Tube Rupture (Section 15.6.3)

Prior to startup following the first refueling outage, Carolina Power & Light Company⁷ shall submit for NRC review and receive approval if a steam generator tube rupture analysis, including the assumed operator actions, which demonstrates that the consequences of the design basis steam generator tube rupture event for the Shearon Harris Nuclear Power Plant are less than the acceptance criteria specified in the Standard Review Plan, NUREG-0800, at 15.6.3 Subparts II (1) and (2) for calculated doses from radiological releases. In preparing their analysis Carolina Power & Light Company⁷ will not assume that operators will complete corrective actions within the first thirty minutes after a steam generator tube rupture.

⁷On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

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(6) Detailed Control Room Design Review (Item I.D.1, Section 18)

Carolina Power & Light⁷ shall submit the final results of the control room surveys prior to startup following the first refueling outage.

(7) Safety Parameter Display System (Section 18.2.1)

Carolina Power & Light Company⁷ shall submit to the NRC for review prior to startup following the first refueling:

- (a) The final Validation Test Report,
- (b) The resolution of additional human engineering deficiencies identified on the safety parameter display system.

(8) Deleted

(9) Formal Federal Emergency Management Agency Finding

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(10) Fresh Fuel Storage

The following criteria apply to the storage and handling of new fuel assemblies in the Fuel Handling Building:

- (a) The minimum edge-to-edge distance between a new fuel assembly outside its shipping container or storage rack and all other new fuel assemblies shall be at least 12 inches.
- (b) New fuel assemblies shall be stored in such a manner that water would drain freely from the assemblies in the event of flooding and subsequent draining of the fuel storage area.

⁷On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

(11) 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. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

(12) Control Room Habitability

Upon implementation of Amendment No. 128 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by Surveillance Requirement (SR) 4.7.6.g, in accordance with TS 6.8.4.o.3(i), the assessment of CRE habitability as required by TS 6.8.4.o.3(ii) and the measurement of CRE pressure as required by TS 6.8.4.o.4, shall be considered met. Following implementation:

- a) The first performance of SR 4.7.6.g, in accordance with Specification 6.8.4.o.3(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 4.0.2, as measured from March 5, 2004, the date of the most recent successful tracer gas test, or within the next 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.

- b) The first performance of the periodic assessment of CRE habitability, Specification 6.8.4.o.3(ii), shall be within 3 years, plus the 9-month allowance of SR 4.0.2, as measured from March 5, 2004, the date of the most recent successful tracer gas test, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.
- c) The first performance of the periodic measurement of CRE pressure, Specification 6.8.4.o.4, shall be within 18 months plus 138 days allowed by SR 4.0.2 as measured from October 13, 2006, the date of the most recent successful pressure measurement test.

D. Exemptions

The facility requires an exemption from Appendix E, Section IV.F.1, which requires that a full participation exercise be conducted within one year before the issuance of a license for full power operation. This exemption is authorized by law and will not endanger life or property or the common defense and security, and certain special circumstances are present. This exemption is, therefore, hereby granted pursuant to 10 CFR 50.12 as follows:

Shearon Harris Nuclear Power Plant, Unit 1, is exempt from the requirement of 10 CFR Part 50, Appendix E, Section IV.F.1 for the conduct of an offsite full participation exercise within one year before the issuance of the first operating license for full power and prior to operation above 5 percent of rated power, provided that a full participation exercise is conducted before or during March 1987.

The facility is granted an exemption from Paragraph III.D.2(b)(ii) of Appendix J to 10 CFR Part 50 (see SER Section 6.2.6). This exemption is authorized by law and will not endanger life or property or the common defense and security, and certain special circumstances are present. In addition, the facility was previously granted an exemption from the criticality alarm requirements of paragraph 70.24 of 10 CFR Part 70 insofar as this section applies to this license. (See License Number SNM-1939 dated October 28, 1985, which granted this exemption).

E. Physical and Cyber Security (Section 13.6.2.10)

The licensee 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 the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Guard Training and Qualification Plan" submitted by letter dated October 19, 2004, "Physical Security Plan" and "Safeguards Contingency Plan" submitted by letter dated October 19, 2004 as supplemented by letter dated May 16, 2006.

The licensee 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 licensee's CSP was approved by License Amendment No. 136, as supplemented by changes approved by License Amendment Nos. 140 and 144 .

F. Fire Protection Program

LLC

Duke Energy Progress, ~~Inc.~~ 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 license amendment request dated October 9, 2009, supplemented by letters dated February 4, 2010, and April 5, 2010, and approved in the associated safety evaluation dated June 28, 2010. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c) and NFPA 805, 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.

(1) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the proposed change may include methods that have been used in the peer-reviewed Fire PRA model, methods that have been approved by the NRC via a plant-specific license amendment or through NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

No changes to this page

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- (a) 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.

- (b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 1×10^{-7} per year (/yr) for CDF and less than 1×10^{-8} /yr for LERF. 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.

(2) Other Criteria for Changes that May Be Made to the NFPA 805 Fire Protection Program Without Prior NRC Approval

- (a) Changes to NFPA 805 Chapter 3, Fundamental Fire Protection Program Elements and Design Requirements

Prior NRC review and approval is 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.

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

Prior NRC review and approval is 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 safety evaluation dated June 28, 2010, to determine that certain fire protection program changes meet the minimal risk criterion. The licensee shall in all cases ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

(c) Unless License Condition F.(2)(b) is met, risk-informed changes to the licensee's fire protection program which involve fire areas that credit incipient detection may not be made without prior NRC review and approval until the Harris Fire PRA model has been modified to incorporate an NRC-accepted method for modeling incipient detection.

(3) Transition License Conditions

(a) Before achieving full compliance with 10 CFR 50.48(c), as specified by Transition License Condition F.(3)(b), risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in License Condition F.(2)(b) above.

(b) The licensee shall implement the following modifications to its facility in order to complete the transition to full compliance with 10 CFR 50.48(c) by December 31, 2010 (note that each modification is listed by Engineering Change (EC) Number, as described in Attachment S of the Shearon Harris NFPA 805 License Amendment Request Transition Report, and outlined in Table 2.8.1-2 of the associated NRC safety evaluation):

- | | |
|------------|------------|
| • EC 62343 | • EC 69501 |
| • EC 62820 | • EC 69764 |
| • EC 68645 | • EC 69765 |
| • EC 68646 | • EC 70027 |
| • EC 68648 | • EC 70350 |
| • EC 68658 | • EC 70895 |
| • EC 68769 | • EC 71147 |

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- (c) The licensee shall maintain appropriate compensatory measures in place until completion of the modifications delineated above.

G. Reporting to the Commission

Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, Duke Energy Progress, ~~Inc.~~ ^{LLC} shall report any violations of the requirements contained in Section 2.C of this 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).

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

- I. The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

- J. The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, ~~Inc.~~ ^{LLC} shall complete these activities no later than October 24, 2026, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

- K. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future inspection. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

Renewed License No. NPF-63
Amendment No. 147

- L. This license is effective as of the date of issuance and shall expire at midnight on October 24, 2046.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Attachment 1 – TDI Diesel Engine Requirements
2. Appendix A – Technical Specifications
3. Appendix B – Environmental Protection Plan
4. Appendix C – Antitrust Conditions

Date of Issuance: December 17, 2008

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-63
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT 1

DUKE ENERGY PROGRESS, INC.

LLC

DOCKET NO. 50-400

ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)

JANUARY 1987

Renewed License No. NPF-63
Amendment No. 142

January 12, 1987
License No. NPF-63

APPENDIX C

ANTITRUST CONDITIONS

The licensee, Duke Energy Progress, Inc. is subject to the following antitrust conditions:

Commitment No. 1

LLC

Licensee recognizes that it is generally in the public interest for electric utilities to interconnect, coordinate reserves, and engage in bulk power supply transactions, in order to increase electric system reliability and reduce the costs of electric power. Bulk power supply arrangements should be such as to provide benefits, on balance, each to licensee and to other participant(s), respectively. The benefits to participants in such arrangements need not be equal and the benefits realized by a small system may be proportionately greater than those realized by a larger system. In implementing the commitments which it makes in the succeeding paragraphs, licensee will act in accordance with the foregoing principles.

Explanatory Note

- (a) Neither licensee nor any other participant shall be obligated to enter into such arrangements (1) if to do so would violate, incapacitate, or limit its ability to perform any other existing contractual arrangement, or (2) if to do so would adversely affect its system operations or the reliability of power supply to its customers, or (3) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

Commitment No. 2

Licensee will interconnect with and coordinate reserves by means of the sale and exchange of emergency bulk power with any entity or entities in its service area** engaging in or proposing to engage in electric bulk power supply on terms that will provide for licensee's costs (including a reasonable return) in connection therewith; and allow the other participant(s), as well as licensee, full access on a proportionate basis to the benefits of reserve coordination. ("Proportionate basis" refers to the equalized percentage of reserves concept rather than the largest single-unit concept, unless all participants otherwise agree).

* In order to clarify the commitments, certain explanatory notes have been added.

** The use of the term "service area" as found in this commitment or in any other section of the commitments is intended to describe those areas in North Carolina and South Carolina where licensee provides some class of electric service, but in no way indicates an assignment or allocation of wholesale market areas.

Attachment 5 to
RA-15-0040

Attachment 5

**Proposed RNP Facility Operating License Changes
(Mark-up)**

DUKE ENERGY PROGRESS, INC.

LLC

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-23

The U.S. Nuclear Regulatory Commission (the Commission) having previously made the findings set forth in License No. DPR-23 issued July 31, 1970, has now found that:

- a. The application to renew License No. DPR-23 filed by Carolina Power & Light Company* (the licensee) 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 Title 10 *Code of Federal Regulations* (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 license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for H. B. Robinson Steam Electric Plant, Unit No. 2, 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 rules and regulations of the Commission;
- d. There is reasonable assurance (i)(a) that initial fuel loading can be conducted in accordance with this license without endangering the health and safety of the public, (i)(b) that upon completion of the Hot Laboratory and installation and testing of the secondary system as described in the applicant's letter dated July 16, 1970, and as noted in subparagraph 3.A., the facility can be operated at steady state power levels up to 5 megawatts thermal in accordance with this license without endangering the health and safety of the public, and (i)(c) that, upon satisfactory completion of the seismic analysis of Class I piping and equipment and upon satisfactory completion of all the items described in the applicant's letter dated July 16, 1970, except the auxiliary safety device on the crane for handling a spent fuel cask which will be installed prior to handling irradiated fuel with the cask, the facility can be operated at steady state power levels up to 2339 megawatts thermal in accordance with this renewed license without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission;

* On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc.

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed Facility Operating License No. DPR-23
Amendment No. 236

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- e. The applicant is technically and financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;
- f. The applicant has furnished proof of financial protection to satisfy the requirements of 10 CFR Part 140;
- g. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public; and
- h. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the Commission concludes that the issuance of Renewed Operating License No. DPR-23 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

On the basis of the forgoing findings regarding this facility, Facility Operating License No. DPR-23, issued July 31, 1970, is superseded by Renewed Facility Operating License No. DPR-23, which is hereby issued to the Carolina Power & Light Company (CP&L),* to read as follows:

1. This renewed license applies to the H. B. Robinson Steam Electric Plant, Unit No. 2 nuclear facility, a closed cycle, pressurized, light water moderated and cooled reactor, and associated steam generators and electric generating equipment (the facility). The facility is located on the applicant's H. B. Robinson site, Darlington County, about 4.5 miles west northwest of Hartsville, South Carolina, and is described in the "Final Facility Description and Safety Analysis Report," as amended (Amendment Nos. 8 through 21), and in the reports filed with the applicant's letters dated June 5, 1970 and July 1, 1970.
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses (CP&L)*:
 - A. Pursuant to Section 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization at the designated location on the H. B. Robinson site in Darlington County, South Carolina in accordance with the procedures and limitations set forth in this renewed 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 Updated Final Safety Analysis Report 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 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;

* On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc.

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed Facility Operating License No. DPR-23
Amendment No. 236

- 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 operation of the facility.
3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30; Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; 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:
- A. Maximum Power Level

The licensee is authorized to operate the facility at a steady state reactor core power level not in excess of 2339 megawatts thermal.
 - B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 243 are hereby incorporated in the license.

The licensee shall operate the facility in accordance with the Technical Specifications.
 - (1) For Surveillance Requirements (SRs) that are new in Amendment 176 to Final Operating License DPR-23, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 176. For SRs that existed prior to Amendment 176, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 176.

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C. Reports

LLC

Duke Energy Progress, ~~Inc.~~ shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

LLC

Duke Energy Progress, ~~Inc.~~ shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Fire Protection Program

LLC

Duke Energy Progress, ~~Inc.~~ 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 Fire Protection Safety Evaluation Report dated February 28, 1978, and supplements thereto. Duke Energy Progress, ~~Inc.~~ 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.

LLC

F. Physical Protection and Cyber Security

The licensee 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 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: "H. B. Robinson Steam Electric Plant Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 1, 2004, as supplemented by letter dated October 20, 2004.

The licensee 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 licensee's CSP was approved by License Amendment No. 226, as supplemented by changes approved by License Amendment Nos. 230 and 239 .

G. The following programs shall be implemented and maintained by the licensee:

(1) DELETED

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(2) DELETED

(3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.

(4) DELETED

H. DELETED

I. DELETED

J. DELETED

K. Updated Final Safety Analysis Report

The Carolina Power & Light Company* Updated Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The Carolina Power & Light Company* shall complete these activities no later than July 31, 2010, 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, 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 license. Until that update is complete, the Carolina Power & Light Company* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the Carolina Power & Light Company* evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

* On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc.

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

Renewed Facility Operating License No. DPR-23
Amendment No. 236

No changes to this page

L. Reactor Vessel Surveillance

All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of ASTM E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC.

M. Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (1) Fire fighting response strategy with the following elements:
 - a. Pre-defined coordinated fire response strategy and guidance
 - b. Assessment of mutual aid fire fighting assets
 - c. Designated staging areas for equipment and materials
 - d. Command and control
 - e. Training of response personnel
- (2) Operations to mitigate fuel damage considering the following:
 - a. Protection and use of personnel assets
 - b. Communications
 - c. Minimizing fire spread
 - d. Procedures for implementing integrated fire response strategy
 - e. Identification of readily-available pre-staged equipment
 - f. Training on integrated fire response strategy
 - g. Spent fuel pool mitigation measures
- (3) Actions to minimize release to include consideration of:
 - a. Water spray scrubbing
 - b. Dose to onsite responders

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4. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 236, are hereby incorporated into this license. Duke Energy Progress, ~~Inc.~~ ^{LLC} shall operate the facility in accordance with the additional conditions.

5. This renewed license is effective as of the date of issuance and shall expire at midnight on July 31, 2030.

FOR THE NUCLEAR REGULATORY COMMISSION

**ORIGINAL SIGNED BY
J. E. DYER**

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

Attachments: 1. Appendix A - Technical Specifications
2. Appendix B - Additional Conditions

Date of Issuance: April 19, 2004

Renewed Facility Operating License No. DPR-23
Amendment No. ~~236~~

APPENDIX A
TO
THE RENEWED FACILITY OPERATING LICENSE DPR-23
TECHNICAL SPECIFICATIONS
FOR
H. B. ROBINSON STEAM ELECTRIC PLANT
UNIT NO. 2
DUKE ENERGY PROGRESS, ~~INC.~~ LLC
DARLINGTON COUNTY, S.C.
DOCKET NO. 50-261

APPENDIX B

ADDITIONAL CONDITIONS
FACILITY OPERATING LICENSE NO. DPR-23

Duke Energy Progress, ~~Inc.~~ (the term licensee in Appendix B refers to Duke Energy Progress, ~~Inc.~~) shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
176	The licensee is authorized to relocate certain requirements included in Appendix A and the former Appendix B to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letters dated September 10, 1997, and October 13, 1997, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.	This amendment is effective immediately and shall be implemented within 90 days of the date of this amendment.
219	Upon implementation of the amendment adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by TS 5.5.17.c.(i), the assessment of CRE habitability as required by TS 5.5.17.c.(ii), and the measurement of CRE pressure as required by TS 5.5.17.d, shall be considered met. Following implementation: <ul style="list-style-type: none"> (a) The first performance of TS 5.5.17.c.(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from January 27, 2003, the 	This amendment is effective immediately and shall be implemented as specified

Attachment 6 to
RA-15-0040

Attachment 6

**Limited Liability Company Operating Agreement of
Duke Energy Progress, LLC (DEP LLC)**

LIMITED LIABILITY COMPANY OPERATING AGREEMENT OF

DUKE ENERGY PROGRESS, LLC

(formerly known as Duke Energy Progress, Inc.)

a North Carolina Limited Liability Company

Dated as of August 1, 2015

THIS LIMITED LIABILITY COMPANY OPERATING AGREEMENT OF Duke Energy Progress, LLC (formerly known as Duke Energy Progress, Inc.) (the "Company"), a limited liability company, organized pursuant to and in accordance with the North Carolina Limited Liability Company Act, North Carolina General Statutes, Chapter 57D, et seq. (the "Act"), is executed as of this 1st day of August, 2015. Progress Energy, Inc., a North Carolina corporation, is the sole member of the Company (the "Member"). Solely for U.S. federal income tax purposes as provided in Treasury Regulations Section 301.7701-3 (as well as for applicable state, local or foreign tax purposes), the Member and the Company intend the Company to be disregarded as an entity that is separate from the Member. For all other purposes (including, without limitation, limited liability protection for the Member from Company liabilities), however, the Member and the Company intend the Company to be respected as a separate legal entity that is separate and apart from the Member.

ARTICLE I

FORMATION AND BUSINESS OF THE COMPANY

Section 1.1 Company Name and Formation. The Company was formed upon the conversion of Duke Energy Progress, Inc., a North Carolina corporation, effective as of the time set forth in the Articles of Organization of the Company filed with the North Carolina Secretary of State (the "Conversion").

Section 1.2 Name. The name of the Company shall be Duke Energy Progress, LLC. All business and affairs of the Company shall be conducted under such name or under an assumed name duly approved by the Board.

Section 1.3 Purpose. The purpose of the Company shall be to engage in any lawful business for which limited liability companies may be organized under the Act.

Section 1.4 Term. The term of the Company shall commence on the date hereof and shall continue indefinitely.

Section 1.5 Place of Business. The principal place of business of the Company within the State of North Carolina shall be located at Raleigh, NC. The Company may have such other offices either within or without the State of North Carolina the Board may designate or as the business of the Company may from time to time require.

Section 1.6 Registered Office and Agency. The address of the registered office of the Company in the State of North Carolina is 150 Fayetteville Street, Box 1011, Raleigh, North Carolina, and the name of the registered agent is CT Corporation System.

Section 1.7 Authorized Representatives. The "Authorized Representatives" of a Member that is not a natural person shall be those representatives designated by such Member from time to time to represent such Member in connection with the Company, unless and until replaced or removed by such Member. The written statements and representations of an Authorized Representative for a Member that is not a natural Person shall be authorized statements and representations of such Member with respect to the matters covered by this Agreement with respect to a Member that is not a natural Person means a decision or action which has been consented to in writing by any Authorized Representative of such Member.

Section 1.8 Tax Treatment. The Company shall be disregarded as an entity separate from its owner for U.S. federal tax purposes as provided in Treasury Regulations Section 301.7701-3 (as well as for applicable state, local or foreign tax purposes). The Member and the Company shall timely make any and all necessary elections and filings such that the Company shall be treated as disregarded as an entity separate from its owner for U.S. federal income tax purposes (as well as for applicable state, local or foreign tax purposes).

ARTICLE II DEFINITIONS

Section 2.1 Definitions. References to an "Article" or a "Section" are, unless otherwise specified, to an Article or a Section of this Agreement. As used in this Agreement, the following terms shall have the meanings set forth respectively after each:

"Act" shall mean the North Carolina Limited Liability Company Act, as the same may be amended from time to time.

"Affiliate" shall mean with reference to any Person, any other Person of which such Person is a principal, member, director, officer, general partner or employee or any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such Person.

"Agreement" shall mean this Limited Liability Company Operating Agreement, as the same may be amended hereafter from time to time as provided herein.

"Authorized Representative" shall have the meaning specified in Section 1.7.

"Board" shall have the meaning set forth in Section 4.1.

"Capital Account" means a separate accounting maintained with respect to the Member pursuant to Section 9.2 of this Agreement.

"Capital Contribution" means the contribution by the Member to capital of the Company.

"Code" shall mean the Internal Revenue Code of 1986, as amended, and as the same may be amended hereafter from time to time.

"Company" shall have the meaning specified in the introductory paragraph to this Agreement.

"Company Expenses" shall have the meaning specified in Section 3.9.

"Director" shall mean each such Person who is hereafter elected or designated as a Director of the Company, in accordance with the terms of this Agreement, who shall be deemed a "manager" of the Company for all purposes under the Act and other applicable law.

"Event of Bankruptcy" shall mean the institution by or against a Person of a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights.

"Interest" shall mean (i) a Member's share of the profits and losses of the Company and a Member's rights to receive distributions from the Company in accordance with the provisions of this Agreement and the Act and (ii) such Member's other rights and privileges as herein provided.

"Liquidating Trustee" shall have the meaning set forth in Section 12.2.

"Member" shall have the meaning specified in the introductory paragraph to this Agreement.

"Officer" shall mean any individual elected or appointed as an officer of the Company pursuant to Section 7.1.

"Person" shall mean an individual, partnership, limited liability company, joint venture, corporation, trust or unincorporated organization, a government or agency or political subdivision thereof and any other entity.

"Related Persons" shall have the meaning specified in Section 3.3.

"Treasury Regulations" shall mean the Income Tax Regulations promulgated under the Code, as the same may be amended hereafter from time to time.

ARTICLE III

MANAGEMENT OF THE COMPANY

Section 3.1 Designation of Directors. The Directors collectively shall have the power on behalf and in the name of the Company to make all decisions and take all actions which they may deem necessary or desirable, including, without limitation, the following:

- (a) managing the day-to-day operation of the Company;
- (b) entering into, making and performing contracts, agreements and other undertakings binding upon the Company that may be necessary, appropriate or advisable in furtherance of the purposes of the Company and making all decisions and waivers thereunder;
- (c) opening and maintaining bank and investment accounts and arrangements, drawing checks and other orders for the payment of money, and designating individuals with authority to sign or give instructions with respect to those accounts and arrangements;
- (d) investing Company funds;
- (e) maintaining the assets of the Company in good order;
- (f) to the extent that funds of the Company are available therefor, paying debts and obligations of the Company;
- (g) borrowing money or otherwise incurring indebtedness on such terms and conditions as the Directors may deem appropriate and, in connection therewith, hypothecating, encumbering and/or granting security interests in the assets of the Company to secure the repayment of such monies or other indebtedness of the Company, provided that in no event shall any such borrowing be recourse to the Member unless expressly agreed in writing by the Member;
- (h) executing instruments and documents, including, without limitation, checks, drafts, notes and other negotiable instruments, mortgages or deeds of trust, pledge agreements, security agreements, financing statements, documents providing for the acquisition, mortgaging or disposition of the Company's property, assignments, bills of sale, leases and any other instruments or documents necessary, in the opinion of the Directors or a duly elected or appointed Officer of the Company, acting within the scope of his or her authority, to the business of the Company;
- (i) entering into any and all other agreements with any other Person for any purpose in furtherance of the business of the Company, in such form as the Directors or a duly elected or appointed Officer of the Company, acting within the scope of his or her authority, may approve;
- (j) the bringing or defending, paying, collecting, compromising, arbitrating, resorting to legal action, or other adjustment of claims or demands of or against the Company;
- (k) selecting, removing and changing the authority and responsibility of lawyers, accountants, and other advisers and consultants;

- (l) obtaining insurance for the Company;
- (m) taking all actions necessary to effectuate transactions pursuant to Article VIII hereof; and
- (n) such other matters as may be necessary or advisable in connection with the operation of the business and conduct of affairs of the company and the accomplishment of the purposes of the Company.

The Directors or their duly authorized appointees or Officers of the Company may execute and deliver contracts and agreements on behalf of the Company in furtherance of the foregoing, without the consent of the Member, and otherwise act for and bind the Company. Third parties may conclusively rely upon the act of the Directors as evidence of the authority of the Directors for all purposes in respect of their dealings with the Company.

Section 3.2 Additional Powers, Duties and Limitations with respect to the Directors.

(a) **Generally.** The Directors shall be responsible for, and shall render to the Company, such services as are reasonably necessary for the daily management, conduct and direction of the property, business and affairs of the Company. No compensation shall be paid to the Directors for the performance of such services, nor shall the Directors be reimbursed for any expenses incurred in their capacity as such, except as otherwise provided in this Agreement, including without limitation Section 4.3 hereof. No Director shall have the ability individually to bind or act for the Company, rather, the Directors may only act collectively through action of the Board subject to and in accordance with the terms and conditions of this Agreement.

(b) **Limitation on Liability for Acts and Omissions of the Directors.** The Company shall pay any and all liability, loss, cost, expense (including reasonable attorneys' fees and disbursements) or damage incurred or sustained by the Directors by reason of any act or omission in the conduct of the business of the Company in accordance with the provisions of Section 11.1 hereof. The Directors, acting in good faith, shall be entitled to rely on the advice of legal counsel, accountants and/or other experts or professional advisers and any act or omission of the Directors acting in reliance upon such advice shall in no event subject such Directors to liability to the Company or any Member.

Section 3.3 Limitation on Liabilities and Powers of the Member. Neither the Directors or their Affiliates or any Member or its Affiliates or any officer, director, partner, member or shareholder, employee or agent of the Directors or any Member (collectively, "Related Persons") shall have (a) any personal liability for any debts, liabilities or obligations of the Company, whether arising in contract or tort or otherwise, or (b) any obligation to the Company, except, in each case, as specifically provided elsewhere in this Agreement or under the Act. Except to the extent

expressly provided for herein and permitted under the Act, the Member shall not participate in the operation, management or control (within the meaning of the Act) of the business of the Company and shall have no right or authority to act for or on behalf of the Company or to sign for or bind the Company.

Section 3.4 Employment of Third Parties By the Company. The Company, may, by action of its Officers, from time to time, employ any Person or engage third parties to render accounting, financial advisory and legal services to the Company. Persons retained or engaged by the Officers, on its behalf, may also be engaged, retained or employed by and act on behalf of the Directors, the Member or any of their respective Affiliates.

Section 3.5 Filings. The Directors are hereby authorized to execute and file all instruments, certificates, notices and documents, and to do or cause to be done all such filing, recording, publishing and other acts as may be deemed by the Directors to be necessary or appropriate from time to time to comply with all applicable requirements for the formation or operation or, when appropriate, termination of a limited liability company in the State of North Carolina and all other jurisdictions where the Company does or shall desire to conduct its business.

Section 3.6 Expenses. The Company will be responsible for all expenses ("Company Expenses"), including, without limitation, (i) all reasonable accounting and legal expenses incurred in connection with Company operations, (ii) all reasonable costs incurred in connection with the preparation of or relating to reports made to the Member, (iii) all reasonable costs related to litigation involving the Company, directly or indirectly, including, without limitation, attorneys' fees incurred in connection therewith, (iv) all reasonable costs related to the Company's obligations set forth in Sections 3.2 and 11.1, and (v) all reasonable out-of-pocket expenses related to the organization and formation of the Company.

ARTICLE IV BOARD OF DIRECTORS

Section 4.1 Appointment and Removal of Directors. Except as otherwise expressly provided in this Agreement, the Articles of Conversion and Articles of Organization or the Act, all decisions with respect to the management of the business and affairs of the Company shall be made by a Board of Directors (the "Board"), each of whom shall be appointed by the Member. Any Director may be removed at any time with or without cause by the Member. Upon the removal of the Director, such Director shall cease to be a "manager" (within the meaning of the Act).

Section 4.2 Number and Qualifications of Directors. The number of Directors constituting the Board may be fixed from time to time by the Member.

Section 4.3 Compensation of Directors. Directors, as such, may receive fixed fees and other compensation for their services as Directors as may be determined by the Member, including, without limitation, their services as members of committees of the Board.

ARTICLE V MEETINGS OF DIRECTORS

Section 5.1 Special Meetings. Special meetings of the Board may be called at the request of the Member, the Chairman of the Board or a majority of the Board then in office. The person or persons authorized to call special meetings of the Board may fix the place and time of the meetings.

Section 5.2 Notice. Notice of any special meeting of the Board shall be given to each Director at such Director's business or residence in writing by hand delivery, first-class or overnight mail or courier service, facsimile or electronic transmission or orally by telephone. If mailed by first-class mail, such notice shall be deemed adequately delivered when deposited in the United States mails so addressed, with postage thereon prepaid, at least five (5) calendar days before such meeting. If by overnight mail or courier service, such notice shall be deemed adequately delivered when the notice is delivered to the overnight mail or courier service company at least 24 hours before such meeting. If by facsimile or electronic transmission, such notice shall be deemed adequately delivered when the notice is transmitted at least 12 hours before such meeting. If by telephone or by hand delivery, the notice shall be given at least 12 hours prior to the time set for the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice of such meeting.

Section 5.3 Quorum and Manner of Acting. Unless the Articles of Organization or this Operating Agreement provide otherwise, a majority of the number of Directors fixed pursuant to this Operating Agreement shall constitute a quorum for the transaction of business at any meeting of the Board. Unless required by law or the Articles of Organization or this Operating Agreement provide otherwise, the affirmative vote of a majority of the Directors present at a meeting at which a quorum is present and voting on the matter shall be the act of the Board.

Section 5.4 Action by Consent of Board. On any matter that is to be voted on, consented to or approved by the Board, the Board may take such action without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, shall be signed by the Directors having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all Directors entitled to vote thereon were present and voted. On any matter that is to be voted on by Directors, the Directors may vote in person or by proxy, and such proxy may be granted in writing, by means of electronic transmission or as otherwise permitted by applicable law. A consent transmitted by electronic transmission by a Director or by a person or persons

authorized to act for a Director shall be deemed to be written and signed for purposes of this Agreement. For purposes of this Agreement, the term "electronic transmission" means any form of communication not directly involving the physical transmission of paper that creates a record that may be retained, retrieved and reviewed by a recipient thereof and that may be directly reproduced in paper form by such a recipient through an automated process.

Section 5.5 Conference Telephone Meetings. Members of the Board may participate in a meeting of the Board by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at such meeting.

ARTICLE VI COMMITTEES OF THE BOARD OF DIRECTORS

Section 6.1 Committees and Powers. The Board may designate one or more Committees of the Board, which shall consist of one or more Directors. Any such Committee may to the extent permitted by law exercise such powers and shall have such responsibilities as shall be specified in the designating resolution. A Committee of the Board may not (i) authorize distributions; (ii) approve, or propose to the Member, action that is required by law to be approved by the Member; (iii) fill vacancies on any Committee; (iv) authorize or approve reacquisition of Interests, except according to a formula or method prescribed by the Board; or (v) authorize or approve the issuance or sale or contract for the sale of Interests. The Board shall have power at any time to fill vacancies in, to change the membership of, or to dissolve any such Committee. Nothing herein shall be deemed to prevent the Board from appointing one or more Committees consisting in whole or in part of persons who are not Directors of the Company; provided, however, that no such Committee shall have or may exercise any authority of the Board.

Section 6.2 Quorum and Manner of Acting. Each Committee shall keep written minutes of its proceedings and shall report such proceedings to the Board when required. The provisions of this Agreement governing meetings, action without meetings, notice and waiver of notice, and quorum and voting requirements of the Board apply to Committees of the Board established under Section 6.1.

Section 6.3 Meetings and Notice. Each Committee shall fix the time and place of its meetings, unless the Board shall otherwise provide. Notice of meetings of any Committee shall be given to each member of the Committee in the manner provided for in Section 5.2.

ARTICLE VII OFFICERS

Section 7.1 Elected and Appointed Officers. The elected Officers of the Company shall be a Chief Executive Officer, a President, a Secretary, a Treasurer, a Controller and such other Officers (including, without limitation, Executive Vice Presidents, Senior Vice Presidents and Vice Presidents) as the Board may deem proper. Elected Officers shall have such powers and duties as generally pertain to their respective offices, subject to the specific provisions of this Article VII, including, without limitation, the duty to engage third parties to render accounting, financial advisory and legal services to the Company on such terms and for such compensation as the Officers may reasonably determine. Such Officers shall also have such powers and duties as from time to time may be conferred by the Board or by any Committee thereof. The Board or the Chief Executive Officer may from time to time appoint such other Officers (including one or more Vice Presidents, Assistant Secretaries, Assistant Treasurers and Assistant Controllers), as may be necessary or desirable for the conduct of the business of the Company. Such other Officers and agents shall have such duties and shall hold their offices for such terms as shall be provided in this Operating Agreement or, to the extent consistent with this Operating Agreement, as may be prescribed by the Board or the Chief Executive Officer. The Officers of the Company shall consist of such Officers as the Board may designate as Officers from time to time, who may or may not be "executive officers" as defined under rules and regulations of the Securities and Exchange Commission.

Section 7.2 Election and Term of Office. Officers of the Company may be elected by the Board at the regular annual meeting of the Board and at such other times as the Board may deem necessary. Officers may be appointed by the Chief Executive Officer to the extent authority to make such appointments is delegated by the Board to the Chief Executive Officer. Each Officer shall hold office until such person's successor shall have been duly elected and shall have qualified or until such person's death or until he or she shall resign or shall be removed pursuant to Section 7.10.

Section 7.3 Chairman of the Board and Chief Executive Officer. The Chief Executive Officer of the Company shall be the Chairman of the Board and shall be responsible for the general management of the affairs of the Company and shall perform all duties incidental to such person's office which may be required by law and all such other duties as are properly required of the Chief Executive Officer or the Chairman of the Board by the Board. The Chairman of the Board shall preside at all meetings of the Board and shall make reports to the Board and to the Member, and shall see that all orders and resolutions of the Board and of any Committee thereof are carried into effect. The Chief Executive Officer may also serve as President, if so elected by the Board.

Section 7.4 President. The President shall act in a general executive capacity and shall assist the Chief Executive Officer in the administration and operation of the Company's business and general supervision of its policies and affairs. The President shall, unless the President is also serving as the Chief Executive Officer, in the absence of or because of the inability to act of the Chief Executive Officer, perform all duties of the Chief Executive Officer and preside at all meetings of the Board.

Section 7.5 Vice Presidents. The Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have such powers and duties as may be prescribed for them, respectively, by the Board or the Chief Executive Officer. Each of such Officers shall report to the Chief Executive Officer or such other Officer as the Board or the Chief Executive Officer shall direct.

Section 7.6 Secretary. The Secretary shall attend all meetings of the Board, shall keep a true and faithful record thereof in proper books and shall have the custody and care of the corporate seal, records, minute books and stock books of the Company and of such other books and papers as in the practical business operations of the Company shall naturally belong in the office or custody of the Secretary or as shall be placed in the Secretary's custody by order of the Board. The Secretary shall keep a suitable record of the address of the Member and shall, except as may be otherwise required by statute or this Operating Agreement, sign and issue all notices required for meetings of the Board. The Secretary shall sign all papers to which the Secretary's signature may be necessary or appropriate, shall affix and attest the seal of the Company to all instruments requiring the seal, shall have the authority to certify the Operating Agreement, resolutions of the Member or the Board and other documents of the Company as true and correct copies thereof and shall have such other powers and duties as are commonly incidental to the office of Secretary and as may be prescribed by the Board or the Chief Executive Officer.

Section 7.7 Treasurer. The Treasurer shall have charge of and supervision over and be responsible for the funds, securities, receipts and disbursements of the Company; cause the moneys and other valuable effects of the Company to be deposited in the name and to the credit of the Company in such banks or trust companies or with such bankers or other depositories as shall be selected in accordance with resolutions adopted by the Board; cause the funds of the Company to be disbursed by checks or drafts upon the authorized depositories of the Company, and cause to be taken and preserved proper vouchers for all moneys disbursed; render to the proper Officers and to the Board and the Finance Committee or similar Committee, if any, whenever requested, a statement of the financial condition of the Company and of all his or her transactions as Treasurer; cause to be kept at the principal executive offices of the Company correct books of account of all its business and transactions; and, in general, perform all duties incident to the office of Treasurer and such other duties as are given to him or her by

the Operating Agreement or as may be assigned to him or her by the Board or the Chief Executive Officer.

Section 7.8 Controller. The Controller shall be the chief accounting officer of the Company; shall keep full and accurate accounts of all assets, liabilities, commitments, revenues, costs and expenses, and other financial transactions of the Company in books belonging to the Company, and conform them to sound accounting principles with adequate internal control; shall cause regular audits of these books and records to be made; shall see that all expenditures are made in accordance with procedures duly established, from time to time, by the Company; shall render financial statements upon the request of the Board; and, in general, shall perform all the duties ordinarily connected with the office of Controller and such other duties as may be assigned to him or her by the Board or the Chief Executive Officer.

Section 7.9 Assistant Secretaries, Assistant Treasurers and Assistant Controllers. Assistant Secretaries, Assistant Treasurers and Assistant Controllers, when elected or appointed, shall respectively assist the Secretary, the Treasurer and the Controller in the performance of the respective duties assigned to such principal Officers, and in assisting such principal Officer, each of such assistant Officers shall for such purpose have the powers of such principal Officer; and, in case of the absence, disability, death, resignation or removal from office of any principal Officer, such principal Officer's duties shall, except as otherwise ordered by the Board, temporarily devolve upon such assistant Officer as shall be designated by the Board or the Chief Executive Officer.

Section 7.10 Removal. Any Officer or agent may be removed by the Board at any time and for any reason. In addition, any Officer or agent appointed by the Chief Executive Officer may be removed by the Chief Executive Officer whenever, in his or her judgment, the best interests of the Company would be served thereby. Any removal shall be without prejudice to the contract rights, if any, of the person so removed.

Section 7.11 Vacancies. A newly created elected office and a vacancy in any elected office because of death, resignation or removal may be filled by the Board. Any vacancy in any office appointed by the Chief Executive Officer because of death, resignation or removal may be filled by the Chief Executive Officer.

ARTICLE VIII

CONTRACTS, CHECKS, DRAFTS, DEPOSITS AND PROXIES

Section 8.1 Contracts. The Board may authorize any Officer or Officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Company, and such authority may be general or confined to specific instances.

Section 8.2 Checks and Drafts. All checks, drafts or other orders for the payment of money, issued in the name of the Company, shall be signed by such Officer or Officers, agent or agents of the Company and in such manner as shall from time to time be determined by the Board or the Chief Executive Officer.

Section 8.3 Deposits. All funds of the Company not otherwise employed shall be deposited from time to time to the credit of the Company in such depositories as may be selected by or under the authority of the Board.

Section 8.4 Proxies. Unless otherwise provided by the Board, the Chief Executive Officer, the President or any Executive Vice President, Senior Vice President or Vice President may from time to time appoint an attorney or attorneys or agent or agents of the Company, in the name and on behalf of the Company, to cast the votes which the Company may be entitled to cast as the holder of stock or other securities in any other entity, any of whose stock or other securities may be held by the Company, at meetings of the holders of the stock or other securities of such other entity, or to consent in writing, in the name of the Company as such holder, to any action by such other entity, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consent, and may execute or cause to be executed in the name and on behalf of the Company and under seal or otherwise, all such written proxies or other instruments as he or she may deem necessary or proper in the premises.

ARTICLE IX

CAPITAL CONTRIBUTIONS; ALLOCATIONS AND DISTRIBUTIONS

Section 9.1 Capital Contributions. Upon the formation of the Company, the Member shall not be required to make a Capital Contribution. Capital Contributions shall be made from time to time as the Member shall determine.

Section 9.2 Capital Accounts. A Capital Account shall be maintained for the Member to which shall be credited (i) the Member's Capital Contributions, if any and (ii) all Company revenues. The Capital Account shall be debited with (i) all costs, expenses, and losses of the Company and (ii) the amount of any distributions (including return of capital) made to the Member. No interest shall be paid on the Member's Capital Account.

Section 9.3 Allocation of Profits and Losses. All profits and losses of the Company shall be allocated to the Member.

Section 9.4 Distributions. All distributions of cash or other assets of the Company shall be made to the Member when and as determined by the Member, subject to any limitations or restrictions provided for in the Act.

ARTICLE X
MAINTENANCE OF BOOKS AND RECORDS, ETC.

Section 10.1 Books and Records. The Company shall maintain those books and records required to be maintained by the Act, along with such other books and records as the Board or the Controller may determine from time to time. All such books and records shall at all times be made available at the principal office of the Company and shall be open to the reasonable inspection and examination by the Directors or their duly authorized representatives during normal business hours.

Section 10.2 Reports to the North Carolina Secretary of State. Pursuant to Section 57D-2-24 of the Act, the Directors shall cause an annual report to be filed with the North Carolina Secretary of State with respect to each Fiscal Year, which sets forth all of the information as required under that section of the Act.

ARTICLE XI
INDEMNIFICATION

Section 11.1 In General. Any person who is or was serving as a Member, Director, Officer, employee or agent of the Company or who, at the request of the Company, is or was serving as a director, manager, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise or person or as a trustee or administrator under an employee benefit plan, shall be indemnified by the Company, to the fullest extent permitted by law, against (a) litigation expenses, including costs, expenses and reasonable attorneys' fees incurred by any such person in connection with any threatened, pending or completed action, suit or proceedings, whether civil, criminal, administrative or investigative, whether formal or informal, and whether or not brought by or on behalf of the Company, arising out of such person's status as such or such person's activities in any of the foregoing capacities, (b) liability, including payments made by such person in satisfaction of any judgment, money decree, fine (including an excise tax assessed with respect to an employee benefit plan), penalty or settlement for which such person may have become liable in any such action, suit or proceeding, (c) payments made and personal liabilities reasonably incurred in the authorized conduct of the business of the Company or for the preservation of its business and its property and (d) reasonable costs, expenses and attorneys' fees incurred by such person in connection with the enforcement of the indemnification rights provided herein. Any Person who is or was serving in any of the foregoing capacities for or on behalf of the Company shall be conclusively deemed to be doing or to have done so in reliance upon, and as consideration for, the indemnification rights provided herein.

The rights of indemnification provided herein (which shall be deemed to be a contract between any such person and the Company enforceable on the part of such person notwithstanding any subsequent amendment or repeal of this Agreement) shall inure to the benefit of the successors, estates or legal representatives of any such

Person and shall not be exclusive of any other rights to which such Person may be entitled apart from this Agreement, by contract, resolution or otherwise.

ARTICLE XII

CESSATION OF MEMBERSHIP, DISSOLUTION, LIQUIDATION AND TERMINATION

Section 12.1 Cessation of Membership. A Person shall cease to be a Member only upon the assignment of such Person's entire Interest and as otherwise expressly provided in this Agreement or the Company's Articles of Organization.

Section 12.2 Dissolution and Termination.

(a) The Company shall be dissolved and its affairs shall be wound up upon the first to occur of any of the following events (an "Event of Dissolution"):

(i) the decision by the Board to dissolve, wind up and liquidate the Company; or

(ii) the entry of a judicial dissolution pursuant to Section 57D-6-01 of the Act.

(b) An Event of Bankruptcy affecting any Member or the transfer of any Interests shall not constitute an Event of Dissolution.

(c) Dissolution of the Company shall be effective on the effective date of the Event of Dissolution, but the Company shall not terminate until the assets thereof have been distributed in accordance with the provisions of Section 12.5 hereof and all other provisions of the Act with respect to the dissolution of a limited liability company have been complied with. Notwithstanding the dissolution of the Company, prior to the termination of the Company, the business, assets and affairs of the Company shall continue to be governed by this Agreement.

Section 12.3 Liquidating Trustee. Upon the occurrence of an Event of Dissolution, sole and plenary authority to effectuate the liquidation of the Company shall be vested in the Board or a Person designated by the Board to effectuate the liquidation of the Company or if the Board elects not to effectuate such liquidation and fails to designate a liquidator, such Person as is selected by the Member (the "Liquidating Trustee"). The Liquidating Trustee shall proceed diligently to wind up the affairs of the Company, liquidate the assets of the Company in an orderly and businesslike manner consistent with obtaining the fair value thereof and distribute the assets of the Company in accordance with the provisions of Section 12.5 hereof. A reasonable amount of time shall be allowed for the orderly liquidation of the assets of the Company and the discharge of liabilities to creditors so as to enable the Liquidating Trustee to minimize the losses attendant upon such liquidation. Prior to such distribution of the Company's assets, the Liquidating Trustee shall continue to exploit the rights, activities and

properties of the Company consistent with the sale or liquidation thereof, exercising in connection therewith all of the power and authority of the Board as herein set forth.

Section 12.4 Accounting upon Dissolution and Termination. Upon the distribution of the assets of the Company in accordance with the provisions of Section 12.5 hereof, the Liquidating Trustee shall cause the Company's accountants to make a full and proper accounting of the assets, liabilities and operations of the Company, as of and through the date on which such distribution occurs.

Section 12.5 Distribution of Assets.

(a) As expeditiously as possible after the occurrence of an Event of Dissolution and the liquidation of the assets of the Company, the assets of the Company, including the proceeds of any such liquidation, shall be applied and distributed in the following order of priority:

(i) First, all liabilities and obligations of the Company (including, without limitation, loans from the Member) shall be paid to creditors of the Company or provided for (whether by establishing reasonable reserves or otherwise as the Liquidating Trustee shall reasonably deem appropriate); and

(ii) Second, to the Member.

(b) The Liquidating Trustee shall have the authority to establish reasonable reserves for the payment of liabilities and obligations of the Company or to otherwise provide for the payment of Company liabilities and obligations as the Liquidating Trustee shall reasonably deem appropriate (as aforesaid). All saleable assets of the Company may be sold in connection with the liquidation of the Company at public or private sale and at such price and upon such terms as the Liquidating Trustee, in its sole discretion, may deem advisable. The Member or any other Related Person may purchase assets at such sale. The Liquidating Trustee shall determine, in its sole discretion, which assets of the Company shall be liquidated through sale and which assets of the Company shall be distributed in kind.

Section 12.6 Termination. Upon compliance with the foregoing distribution plan, the Company shall cease to be such, and the Liquidating Trustee shall execute, acknowledge and cause to be filed with the North Carolina Secretary of State articles of dissolution of the Company.

ARTICLE XIII MISCELLANEOUS

Section 13.1 Successors and Assigns; Third Party Beneficiaries. This Agreement shall be binding upon and inure to the benefit of the Member and its legal representatives, administrators, executors, successors and assigns. Except as set

forth in Article XI, none of the provisions of this Agreement shall be for the benefit of or enforceable by any Person not a party hereto.

Section 13.2 Sole Operating Agreement. This Agreement, together with the documents expressly referred to herein, each as amended or supplemented, constitutes the sole operating agreement of the Company.

Section 13.3 Assignment. An assignee of a Member shall automatically become a Member, provided the assignee consents.

Section 13.4 Choice of Law; Forum and Waiver of Jury Trial. This Agreement shall be construed in accordance with the laws of the State of North Carolina, without regard to the choice of laws rules thereof, and the obligations, rights and remedies of the Member hereunder shall be determined in accordance with such laws. Any legal suit, action or proceeding against any of the parties hereto arising out of or relating to this Agreement shall only be instituted in any federal or state court in North Carolina.

Section 13.5 Interpretation. Wherever from the context it appears appropriate, each term stated in either the singular or the plural shall include the singular and the plural, and pronouns stated in the masculine, the feminine or neuter gender shall include the masculine, the feminine and the neuter.

Section 13.6 Captions. Captions contained in this Agreement are inserted only as a matter of convenience and in no way define, limit or extend or otherwise affect the scope or intent of this Agreement or any provision hereof.

Section 13.7 Severability. If any provision of this Agreement, or the application of such provision to any Person or circumstance, shall be held invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions of this Agreement, or the application of such provision in jurisdictions or to Persons or circumstances other than those to which it is held invalid, illegal or unenforceable shall not be affected thereby.

Section 13.8 Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument.

Section 13.9 Non-Waiver. No provision of this Agreement shall be deemed to have been waived unless such waiver is contained in a written notice given to the party claiming such waiver has occurred, provided that no such waiver shall be deemed to be a waiver of any other or further obligation or liability of the party or parties in whose favor the waiver was given.

Section 13.10 Time Periods. In applying any provision of this Agreement which requires that an act be done or not be done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an

event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

Section 13.11 Resignations. Any Director or any Officer, whether elected or appointed, may resign at any time by giving written notice of such resignation to the Board, the Chairman of the Board or the Secretary, and such resignation shall be deemed to be effective when communicated unless the notice specifies a later effective date. No formal action shall be required on behalf of the Company to make any such resignation effective. Upon the effectiveness of any such resignation, such Director shall cease to be a “manager” (within the meaning of the Act).

Section 13.12 Continuation of Obligations. The Company, hereby expressly covenants, agrees and confirms, notwithstanding the Conversion, (i) that its obligation promptly to pay, perform and discharge when due each and every debt, obligation, covenant and agreement incurred, made or to be paid, performed or discharged by the Company under the indenture dated as of January 1, 1944, between Duke Energy Progress, Inc., and The Bank of New York Mellon, as successor trustee, as supplemented (the “Mortgage”) continues upon the Conversion, (ii) that, pursuant to Section 57D-9-23 of the Act and Section 55-11A-13 of the North Carolina Business Corporation Act, title to all real estate and other property owned by the Company, prior to the Conversion, continues to be vested in the Company upon the Conversion, without reversion or impairment and that all liabilities of the Company, prior to the Conversion, continue as liabilities of the Company upon the Conversion; (iii) that all rights of holders of First Mortgage Bonds outstanding under the Mortgage and of the Trustees which existed immediately prior to the Conversion are preserved unimpaired; and (iv) that all debts, liabilities and duties of the Company under the Mortgage which existed immediately prior to the Conversion may be enforced against it to the same extent as if said debts, liabilities and duties had originally been incurred or contracted by it in its capacity as a North Carolina limited liability company.

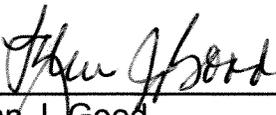
ARTICLE XIV AMENDMENTS

Section 14.1 Amendment. Except as required by law or as otherwise provided in the Articles of Organization or in this Agreement, this Agreement may be amended or repealed and a new Agreement may be adopted only by the Member.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date set forth on the first page of this Agreement.

PROGRESS ENERGY, INC.

By: 
Lynn J. Good
Chief Executive Officer