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Vice President
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SERIAL: BSEP 98-0190
TSC 98TSB06

10 CFR 50.90

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/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

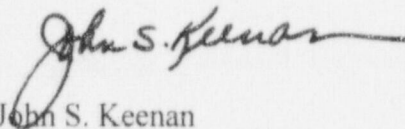
Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light (CP&L) Company is requesting a revision to the Operating Licenses for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. The proposed license amendments delete various license conditions that have been completed, make editorial changes, and provide clarifying information. The changes are administrative and only provide updated information.

CP&L is providing, in accordance with 10 CFR 50.91(b), Mr. Mel Fry of the State of North Carolina a copy of the proposed license amendments.

Please refer any questions regarding this submittal to Mr. Keith R. Jury, Manager - Regulatory Affairs, at (910) 457-2783.

Sincerely,



John S. Keenan

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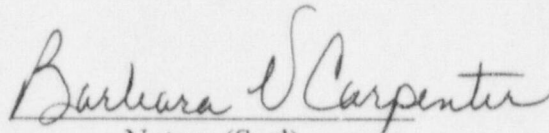
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Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Environmental Considerations
4. Typed Operating License Pages - Unit No. 1
5. Typed Operating License Pages - Unit No. 2
6. Marked-up Operating License Pages - Unit No. 1
7. Marked-up Operating License Pages - Unit No. 2

John S. Keenan, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Carolina Power & Light Company.


Notary (Seal)

My commission expires: 2/16/03



cc (with enclosures):

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

U. S. Nuclear Regulatory Commission
ATTN: Mr. Charles A. Patterson, NRC Senior Resident Inspector
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Ms. Jo A. Sanford
Chair - North Carolina Utilities Commission
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Mr. Mel Fry
Director - Division of Radiation Protection
North Carolina Department of Environment and Natural Resources
3825 Barrett Drive
Raleigh, NC 27609-7221

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62 REQUEST FOR LICENSE AMENDMENTS UPDATE OF OPERATING LICENSES

BASIS FOR CHANGE REQUEST

INTRODUCTION

The proposed changes revise the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2 Facility Operating Licenses to delete various license conditions that have been completed, make editorial changes, and provide clarifying information. The changes are administrative and only provide updated information. Details of the proposed changes to the BSEP, Unit Nos. 1 and 2 Facility Operating Licenses are provided below.

PROPOSED CHANGES TO BSEP UNIT NO. 1 FACILITY OPERATING LICENSE

- | | |
|---------------------|--|
| PARAGRAPH
CHANGE | 2.C.(2)
In the first sentence of the second paragraph, replace the word "Final" with "Facility." |
| PARAGRAPH
CHANGE | 2.C.(3)
Delete this license condition to reflect completion of the stated condition. |
| PARAGRAPH
CHANGE | 2.E.c
Delete the reference to the Environmental Technical Specifications to reflect License Amendment No. 179, dated November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications to other licensee-controlled documents. Also replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064," and revise the sentence to read: "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." |
| PARAGRAPH
CHANGE | 2.G
Delete this license condition to reflect completion of the stated condition. |
| PARAGRAPH
CHANGE | 2.K
Delete this license condition to reflect completion of the stated condition. |

PARAGRAPH 2.L
CHANGE Delete Sections 1, 2, 4, and 5 of this license condition to reflect completion of the stated conditions.

PROPOSED CHANGES TO BSEP UNIT NO. 2 FACILITY OPERATING LICENSE

PARAGRAPH 2.C.(2)
CHANGE In the first sentence of the second paragraph, replace the word "Final" with "Facility."

PARAGRAPH 2.C.(3)
CHANGE Delete this license condition to reflect completion of the stated condition.

PARAGRAPH 2.C.(4)
CHANGE Revise this sentence to read: "The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operations, 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."

PARAGRAPH 2.D.d
CHANGE Delete the reference to the Environmental Technical Specifications to reflect License Amendment No. 210, dated November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications to other licensee-controlled documents. Also replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064." The revised sentence will read: "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 Con'trol Act, as amended."

PARAGRAPH 2.H
CHANGE Delete this license condition to reflect completion of the stated condition.

PARAGRAPH 2.I
CHANGE Delete Sections 1, 2, 4, and 5 of this license condition to reflect completion of the stated conditions.

BASES FOR THE PROPOSED CHANGES - UNIT NO. 1

1. Unit No. 1 Operating License, Paragraph 2.C.(2)

The NRC issued License Amendment No. 203 on June 5, 1998. As issued by the NRC, the

wording for this license condition inadvertently used the word "Final" in lieu of "Facility" when referring to the Facility Operating License. The correct title of the Operating License is "Facility Operating License No. DPR-71," and changing the word "Final" to "Facility" is an editorial change.

2. Unit No. 1 Operating License, Paragraph 2.C.(3)

The proposed change to paragraph 2.C.(3) would delete the license condition to reflect completion of the stated condition. As described in the "Brunswick Steam Electric Plant Program for Seismic Monitoring" dated June 10, 1975, as revised June 27, 1975, Phase I of the program consisted of: (1) a Seismic Monitoring portion and (2) a Leveling portion. Termination of the Seismic Monitoring and Leveling portions of the program was approved by the NRC, and is documented in NRC letters dated December 28, 1977, and April 25, 1979, respectively.

3. Unit No. 1 Operating License, Paragraph 2.E.c

The proposed change to paragraph 2.E.c is being made to reflect License Amendment No. 179 to Facility Operating License No. DPR-71, which was issued by the NRC for BSEP, Unit No. 1, on November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications contained in Appendix B to other licensee-controlled documents, which are adequately controlled by the requirements of 10 CFR 50.59. Since the Environmental Technical Specifications have been removed from Appendix B, the reference to the Environmental Technical Specifications contained in paragraph 2.E.c of the operating license should be removed. Also, License Amendment No. 203, issued on June 5, 1998, added a new Appendix B, which contains additional conditions. The change to replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064" is an editorial change that is being made to clarify the actual name of the permit that this license condition refers to.

4. Unit No. 1 Operating License, Paragraph 2.G

License condition 2.G is being deleted to reflect completion of the stated condition. The license condition required Carolina Power & Light (CP&L) Company to provide to and obtain approval from the Commission of acceptance criteria for certain tests under the Startup Test Program prior to proceeding beyond Test Condition 3 in the power ascension program provided in the Final Safety Analysis Report. CP&L submitted the proposed acceptance criteria for these tests by letter dated January 18, 1977. Commission approval of the proposed acceptance criteria, and approval to proceed beyond Test Condition 3, was granted by letter dated January 24, 1977.

5. Unit No. 1 Operating License, Paragraph 2.K

This license condition required CP&L to proceed with the design, procurement, and construction of modifications to the Augmented Off-Gas system, and by January 15, 1983, to

submit proposed Technical Specifications. In addition, the license condition required the Augmented Off-Gas system to be operable by May 31, 1983. Proposed Technical Specifications were submitted to the NRC by letter dated December 13, 1982. As stated in a letter to the NRC dated September 29, 1983, the BSEP, Unit No. 1, Augmented Off-Gas system installation was complete and the system was operational in 1983.

6. Unit No. 1 Operating License, Paragraph 2.L

License conditions 2.L.(1), 2.L.(2), 2.L.(4), and 2.L.(5) are being deleted to reflect completion of the stated conditions. The bases for deletion of these conditions are provided below.

- License Condition 2.L.(1) - During initial start-up testing following implementation of the power uprate license amendment, Control Rod Drive system cooling and drive flow was monitored during the increase to 100 percent power. The results were documented in the BSEP Unit 1 Power Uprate Startup Test Report, which was submitted to the NRC by letter dated May 29, 1997 (Serial: BSEP 97-0231), and indicated that the system will continue to carry out its functions at uprated conditions.
- License Condition 2.L.(2) - During initial Unit No. 1 Cycle 11 power ascension for uprated power conditions, vibration on the Reactor Recirculation pump motor was monitored using existing instrumentation. No significant increase in vibration or noise associated with power uprate was identified. The monitoring results were documented in the BSEP Unit 1 Power Uprate Startup Test Report, which was submitted to the NRC by letter dated May 29, 1997 (Serial: BSEP 97-0231).
- License Condition 2.L.(4) - An evaluation of the affect of power uprate on the qualification of mechanical equipment with non-metallic components both inside and outside containment was performed. No issues were identified with the qualification of mechanical equipment.
- License Condition 2.L.(5) - This license condition requires the completion of classroom and simulator training prior to Unit No. 1 start-up for Cycle 11 operation. This training was completed as required. In addition, this license condition also requires a simulator modification. The simulator modification was implemented prior to the Unit No. 1 start-up for Cycle 11 as required.

BASES FOR THE PROPOSED CHANGES - UNIT NO. 2

1. Unit No. 2 Operating License, Paragraph 2.C.(2)

The NRC issued License Amendment No. 233 on June 5, 1998. As issued by the NRC, the wording for this license condition inadvertently used the word "Final" in lieu of "Facility" when referring to the Facility Operating License. The correct title of the Operating License is

"Facility Operating License No. DPR-62," and changing the word "Final" to "Facility" is an editorial change.

2. Unit No. 2 Operating License, Paragraph 2.C.(3)

The proposed change to paragraph 2.C.(3) would delete the license condition to reflect completion of the stated condition. As described in the "Brunswick Steam Electric Plant Program for Seismic Monitoring" dated June 10, 1975, as revised June 27, 1975, Phase I of the program consisted of: (1) a Seismic Monitoring portion and (2) a Leveling portion. Termination of the Seismic Monitoring and Leveling portions of the program was approved by the NRC, and is documented in NRC letters dated December 28, 1977, and April 25, 1979, respectively.

3. Unit No. 2 Operating License, Paragraph 2.C.(4)

This license condition states that "The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operations." There are four valves in the equalizer piping, two larger valves in series, and two smaller bypass valves that are in parallel with the respective larger valves. As described in a letter from the NRC to CP&L dated August 28, 1975, the largest recirculation break area assumed in CP&L's evaluation of Emergency Core Cooling System (ECCS) performance was 4.2 square feet. This break size was based on operation with a closed valve in the equalizer line between the two recirculation loops. Therefore, a license condition was added which prohibits reactor operation unless the valve in the equalizer line is closed. As described in the Updated Final Safety Analysis Report, Section 5.4.1, the valves in the equalizer line between the two pump discharge lines are maintained closed, except for one bypass valve which is left open to prevent pressure buildup due to ambient and conduction heating of the water between the equalizer valves. Since the lines are isolated from one another during operation by at least one locked closed valve per line, no single failure could result in separation requirements not being met. In addition, the area that would result from a break of the two inch bypass line is much less than the area assumed in the evaluation described above. Adding the clarification, that one bypass valve is left open to prevent pressure buildup due to ambient and conduction heating of the water between the equalizer valves, to the license condition is an administrative change. There is no physical or operational change to the plant associated with this clarification.

4. Unit No. 2 Operating License, Paragraph 2.D.d

The proposed change to paragraph 2.D.d is being made to reflect License Amendment No. 210 to Facility Operating License No. DPR-62, which was issued by the NRC for BSEP on November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications contained in Appendix B to other licensee-controlled documents, which are adequately controlled by the requirements of 10 CFR 50.59. Since the Environmental Technical Specifications have been removed from Appendix B, the reference to the

Environmental Technical Specifications contained in paragraph 2.D.d of the operating license should be removed. Also, License Amendment No. 233, issued on June 5, 1998, added a new Appendix B, which contains additional conditions. The change to replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064" is an editorial change that is being made to clarify the actual name of the permit that this license condition refers to.

5. Unit No. 2 Operating License, Paragraph 2.H

This license condition required CP&L to proceed with the design, procurement, and construction of modifications to the Augmented Off-Gas system, and by July 15, 1983, to submit proposed Technical Specifications. In addition, the license condition required the Augmented Off-Gas system to be operable within two months following the extended outage scheduled to begin in March 1984. Proposed Technical Specifications were submitted to the NRC by letter dated December 13, 1982. This license condition has been met, and should be deleted.

6. Unit No. 2 Operating License, Paragraph 2.I

License conditions 2.I.(1), 2.I.(2), 2.I.(4), and 2.I.(5) are being deleted to reflect completion of the stated conditions. The basis for deletion of these conditions is provided below.

- License Condition 2.I.(1) - During initial start-up testing following implementation of the power uprate license amendment, Control Rod Drive system cooling and drive flow was monitored during the increase to 100 percent power. The results were documented in the BSEP Unit 2 Power Uprate Startup Test Report, which was submitted to the NRC by letter dated January 19, 1998 (Serial: BSEP 97-0530), and indicated that the system will continue to carry out its functions at uprated conditions.
- License Condition 2.I.(2) - Upon implementation of the power uprate license amendment during the initial power ascension for uprated power, vibration on the Reactor Recirculation pump motor was monitored using existing instrumentation. No significant increase in vibration or noise associated with power uprate was identified. The monitoring results were documented in the BSEP Unit 2 Power Uprate Startup Test Report, which was submitted to the NRC by letter dated January 19, 1998 (Serial: BSEP 97-0530).
- License Condition 2.I.(4) - An evaluation of the affect of power uprate on the qualification of mechanical equipment with non-metallic components both inside and outside containment was performed. No issues were identified with the qualification of mechanical equipment.
- License Condition 2.I.(5) - This license condition requires the completion of a simulator modification. The simulator modification was implemented prior to the initial start-up following implementation of the power uprate license amendment.

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62 REQUEST FOR LICENSE AMENDMENTS UPDATE OF OPERATING LICENSES

10 CFR 50.92 EVALUATION

Carolina Power & Light (CP&L) Company has concluded that the proposed changes to the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2 Operating Licenses deleting various license conditions that have been completed, making editorial changes, and providing clarifying information do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards set forth in 10 CFR 50.92 is provided below.

Proposed Changes - Unit No. 1:

- In the first sentence of the second paragraph of 2.C.(2), replace the word "Final" with "Facility."
- Delete license condition 2.C.(3) to reflect completion of the stated condition.
- Delete the reference to the Environmental Technical Specifications in Paragraph 2.E.c to reflect License Amendment No. 179, dated November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications to other licensee-controlled documents. Also replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064," and revise the sentence to read: "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."
- Delete license condition 2.G to reflect completion of the stated condition.
- Delete license condition 2.K to reflect completion of the stated condition.
- Delete Sections 1, 2, 4, and 5 of license condition 2.L to reflect completion of the stated conditions.

Proposed Changes - Unit No. 2:

- In the first sentence of the second paragraph of 2.C.(2), replace the word "Final" with "Facility."

- Delete license condition 2.C.(3) to reflect completion of the stated condition.
- Revise Paragraph 2.C.(4) to read: "The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operations, 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."
- Delete the reference to the Environmental Technical Specifications in Paragraph 2.D.d to reflect License Amendment No. 210, dated November 2, 1995. This amendment relocated the remaining Environmental Technical Specifications to other licensee-controlled documents. Also replace the words "a permit" with "National Pollutant Discharge Elimination System Permit No. NC0007064." The revised sentence will read: "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."
- Delete license condition 2.H to reflect completion of the stated condition.
- Delete Sections 1, 2, 4, and 5 of license condition 2.I to reflect completion of the stated conditions.

Basis:

1. The proposed license amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes revise the BSEP, Unit Nos. 1 and 2, Facility Operating Licenses to delete various license conditions that have been completed, make editorial changes, and provide clarifying information. The changes are administrative and only provide updated and clarifying information. No physical or operational changes to the facility will result from the proposed changes. Therefore, the proposed license amendments do not involve an increase in the probability or consequences of an accident previously evaluated.

2. The proposed license amendments will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes revise the BSEP, Unit Nos. 1 and 2, Facility Operating Licenses to delete various license conditions that have been completed, make editorial changes, and provide clarifying information. The changes are administrative and only provide updated and clarifying information. The proposed license amendments do not alter any plant operation and will not result in a physical change to the facility. Therefore, the proposed license amendments do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed license amendments do not involve a significant reduction in a margin of safety.

The proposed changes revise the BSEP, Unit Nos. 1 and 2, Facility Operating Licenses to delete various license conditions that have been completed, make editorial changes, and provide clarifying information. The changes are administrative and only provide updated and clarifying information. No physical or operational changes to the facility will result from the proposed changes. Therefore, the proposed license amendments do not involve a reduction in a margin of safety.

ENCLOSURE 3

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

ENVIRONMENTAL CONSIDERATIONS

Carolina Power & Light (CP&L) Company has concluded that the proposed changes to the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2 Operating Licenses deleting various license conditions that have been completed, making editorial changes, and providing clarifying information are eligible for categorical exclusion from performing an environmental assessment. In support of this determination, an evaluation of each of the three (3) criteria set forth in 10 CFR 51.22(c)(9) is provided below.

1. The proposed license amendments do not involve a significant hazards consideration, as shown in Enclosure 2.
2. The proposed license amendments do not result in a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite. The proposed license amendments do not introduce any new equipment nor require any existing equipment or systems to perform a different type of function than they are presently designed to perform. The proposed license amendments do not alter the function of existing equipment and will ensure that the consequences of any previously evaluated accident do not increase. Therefore, CP&L has concluded that there will not be a significant increase in the types or amounts of any effluent that may be released offsite and, as such, the changes do not involve irreversible environmental consequences beyond those already associated with normal operation.
3. The proposed license amendments do not result in an increase in individual or cumulative occupational radiation exposure.

ENCLOSURE 4

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

TYPED OPERATING LICENSE PAGES - UNIT NO. 1

CAROLINA POWER & LIGHT COMPANY
DOCKET NO. 50-325
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1
UPDATED FACILITY OPERATING LICENSE

License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for license 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 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 (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. 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) 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 rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-71, subject to the conditions for protection of the environment set forth herein is in accordance with Appendix D to 10 CFR Part 50, of the Commission's regulations and all applicable requirements have been satisfied; and

Revision

- I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, 70.23 and 70.31.
2. Facility Operating License No. DPR-71 is hereby issued to the Carolina Power & Light Company 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 by the Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency and operated by Carolina Power and Light Company. 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 Carolina Power & Light Company:
 - (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 license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source 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) Carolina Power & Light Company shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Report, dated November 22, 1977, as supplemented April 1979, June 11, 1980, December 30, 1986, December 6, 1989, July 28, 1993, and February 10, 1994, respectively, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2558 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 203, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 203 to 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 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.

(3) Deleted by Amendment No.

D. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21 are entitled: "Brunswick Steam Electric Plant Industrial Security Plan," with revisions submitted through September 23, 1987; "Brunswick Steam Electric Plant Security Personnel Training and Qualification Plan," with revisions through January 20, 1987; and "Brunswick Steam Electric Plant Safeguards Contingency Plan," with revisions submitted through March 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(1) Deleted by Amendment No. 118.

(2) Deleted by Amendment No. 118.

(3) Deleted by Amendment No. 118.

- E. This licensee is subject to the following additional conditions for the protection of the environment:
- a. Deleted by Amendment No. 54.
 - b. Deleted by Amendment No. 54.
 - c. 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.
- 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. .
- H. This license is effective as of the date of issuance and shall expire at midnight on September 8, 2016.
- I. Deleted by Amendment No. 70.
- J. Deleted by Amendment No. 70.
- K. Deleted by Amendment No. .
- 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. .
 - (2) Deleted by Amendment No. .

(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. . |

(5) Deleted by Amendment No. . |

3. Additional Conditions:

The Additional Conditions contained in Appendix B, as revised through Amendment No. 203, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Additional Conditions.

ENCLOSURE 5

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

TYPED OPERATING LICENSE PAGES - UNIT NO. 2

CAROLINA POWER & LIGHT COMPANY
DOCKET NO. 50-324
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2
UPDATED FACILITY OPERATING LICENSE

License No. DPR-62

1. The Atomic Energy Commission (the Commission) having found that:
 - A. The application for license 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 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 (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. 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) 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 rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-62 subject to the conditions for protection of the environment set forth herein is in accordance with Appendix D to 10 CFR Part 50, of the Commission's regulations and all applicable requirements have been satisfied; and

Revision

- I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, and 70.23 and 70.31.
2. Facility Operating License No. DPR-62 is hereby issued to the Carolina Power & Light Company to read as follows:
 - A. This license applies to the Brunswick Steam Electric Plant, Unit 2, a boiling water reactor and associated equipment (the facility), owned by the Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency and operated by Carolina Power and Light Company. 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 Carolina Power & Light Company:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of the 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 license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source, 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) Carolina Power & Light Company shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Report, dated November 22, 1977, as supplemented April 1979, June 11, 1980, December 30, 1986, December 6, 1989, July 28, 1993, and February 10, 1994 respectively, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2558 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 233, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 233 to 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.

(3) Deleted by Amendment No. .

(4) Equalizer Valve Restriction

The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operations, 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, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21 are entitled: "Brunswick Steam Electric Plant Industrial Security Plan," with revisions submitted through September 23, 1987; "Brunswick Steam Electric Plant Security Personnel Training and Qualification Plan," with revisions through January 20, 1987; and "Brunswick Steam Electric Plant Safeguards Contingency Plan," with revisions submitted through March 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

- (7) Deleted by Amendment No. 152.
- (8) Deleted by Amendment No. 152.
- D. This license is subject to the following additional conditions for the protection of the environment:
 - a. Deleted by Amendment No. 79.
 - b. Deleted by Amendment No. 79.
 - c. Deleted by Amendment No. 79.
 - 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, 2014.
- F. Deleted by Amendment No. 98.
- G. Deleted by Amendment No. 98.
- H. Deleted by Amendment No. .
- 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):

- (1) Deleted by Amendment No. .
- (2) Deleted by Amendment No. .
- (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. . |

(5) Deleted by Amendment No. . |

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 233, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Additional Conditions.

ENCLOSURE 6

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

MARKED-UP OPERATING LICENSE PAGES - UNIT NO. 1

CAROLINA POWER & LIGHT COMPANY
DOCKET NO. 50-325
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1
UPDATED FACILITY OPERATING LICENSE

License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for license 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 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 (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. 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) 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 rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-71, subject to the conditions for protection of the environment set forth herein is in accordance with Appendix D to 10 CFR Part 50, of the Commission's regulations and all applicable requirements have been satisfied; and

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- I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, 70.23 and 70.31.
2. Facility Operating License No. DPR-71 is hereby issued to the Carolina Power & Light Company 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 by the Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency and operated by Carolina Power and Light Company. 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 Carolina Power & Light Company:
 - (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 license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source 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) Carolina Power & Light Company shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Report, dated November 22, 1977, as supplemented April 1979, June 11, 1980, December 30, 1986, December 6, 1989, July 28, 1993, and February 10, 1994, respectively, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2558 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 203, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

Facility

For Surveillance Requirements (SRs) that are new in Amendment 203 to ~~Final~~ 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 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.

- (3) The licensee will undertake a program for seismic monitoring for a minimum of two years unless termination is earlier approved by the NRC staff. The program and its control will be conducted in general conformity with the document "Brunswick Steam Electric Plant Program for Seismic Monitoring" dated June 10, 1975, as revised June 27, 1975. The program will include: (a) not less than ten seismic monitoring stations (seven permanent and three portable), in an array approved by the NRC staff, unless a lesser number is approved by the NRC staff in writing, and (b) quarterly reports on the monitoring data to be submitted to the NRC. Should the NRC staff determine that initiation of Phase II as described within the program within the two year monitoring period, or Phase III following initiation of Phase II, is required, the licensee will either comply with a request to proceed to Phase II (or Phase III) or immediately request and be granted a hearing on the issue of whether the data on which the staff's request is based justifies the initiation of Phase II (or Phase III) under the program for seismic monitoring agreed to by the licensee and the NRC staff. Nothing herein will be construed as precluding changes in the program by the licensee which do not adversely affect the quantity of information derived from the monitoring program. NRC will be informed of any such changes in the quarterly report.

Deleted by
Amendment
No.

D. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21 are entitled: "Brunswick Steam Electric Plant Industrial Security Plan," with revisions submitted through September 23, 1987; "Brunswick Steam Electric Plant Security Personnel Training and Qualification Plan," with revisions through January 20, 1987; and "Brunswick Steam Electric Plant Safeguards Contingency Plan," with revisions submitted through March 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(1) Deleted by Amendment No. 118.

(2) Deleted by Amendment No. 118.

(3) Deleted by Amendment No. 118.

E. This licensee is subject to the following additional conditions for the protection of the environment:

a. Deleted by Amendment No. 54.

b. Deleted by Amendment No. 54.

c. *Replace With Attached Insert* → The licensee shall comply with the requirements of the Environmental Technical Specifications which accompany the operating license and, to the extent that such requirements are modified by conditions contained in a permit issued pursuant to Section 402 of the Federal Water Pollution Control Act, as amended, the licensee shall comply with the effluent limitations contained in such permit.

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.

Insert for License Condition 2.E.c

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.

Deleted by Amendment No. .

-6-

G. This license is issued upon the condition that the licensee shall provide to and obtain approval from the Commission of acceptance criteria for Startup Test Program tests numbers 20 "Feedwater System (heater loss)," 22, "Main Steamline Isolation Valves (full isolation)," 24 "Turbine Stop Valve Trip" and 25 "Generator Load Rejection" prior to proceeding beyond Test Condition 3 in the power ascension program provided in the Final Safety Analysis Report.

H. This license is effective as of the date of issuance and shall expire at midnight on September 8, 2016.

I. Deleted by Amendment No. 70.

J. Deleted by Amendment No. 70.

Deleted by Amendment No.

K. Augmented Off-Gas System Modifications

The Licensee shall proceed with the necessary design, procurement and construction of the modifications to the Augmented Off-Gas System. By January 15, 1983, the Licensee shall submit proposed Technical Specifications which incorporate effluent limits that reflect the required operation of the augmented off-gas system. By May 31, 1983, the Licensee shall have the augmented off-gas system operable, and the system shall operate in accordance with the referenced Technical Specifications, as issued.

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) Control Rod Drive (CRD) System

During initial Unit 1 Cycle 11 start-up testing, if the licensee determines that adequate CRD System cooling and drive flow is not available under power uprate conditions, the licensee shall repair or modify the CRD System, as necessary, to assure that the system will continue to carry out its functions at uprated conditions.

Deleted by
Amendment
No. .

(2) Recirculation Pump Motor Vibration

Perform monitoring of recirculation pump motor vibration during initial Unit 1 Cycle 11 power ascension for uprated power conditions. Vibration and noise shall be evaluated prior to and at uprated conditions to ensure no significant increase in vibration or noise occurs with power uprate.

(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) Equipment Qualification

Environmental qualification of safety-related mechanical equipment with non-metallic components affected by uprated radiation conditions shall be resolved prior to Unit 1 start-up for Cycle 11 operation either by:

- (a) Refined radiation calculations (location specific), and/or
- (b) Slightly reducing the qualified life, and/or
- (c) Assessing the qualification bases by demonstrating qualification based on actual test and materials threshold data while maintaining the regulatory margin, and/or
- (d) Assessing the impact of the radiation test and/or published threshold data on the material properties and its safety function.

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Amendment
No.

(5) Human Factors

(a) Classroom Training

Power Uprate Operator Training, including the plant operating parameter changes resulting from power uprate, shall be performed as part of License Operator Retraining (LOR) prior to Unit 1 start-up for Cycle 11 operation.

(b) Simulator Training

Simulator training for power uprate shall be completed prior to Unit 1 start-up for Cycle 11 operation. The simulator training will include the following:

- (i) A demonstration of selected transients at the uprated power compared to the non-uprated power, including changes in time to achieve critical points for operator actions.

(ii) The time to meet the conditions to inject boron for a high power ATWS.

(iii) The time to depressurize the reactor on a loss of all high pressure injection (time to achieve conditions requiring emergency depressurization at TAF; non-ATWS).

(c) Simulator Modification

Prior to Unit 1 start-up for Cycle 11, the simulator shall be modified to match the uprated control room, as close as possible, with the exception of the zone coding for the High Pressure Coolant Injection (HPCI) System and Reactor Core Isolation Cooling (RCIC) System speed indication meters. The HPCI and RCIC speed indication zone coding shall be completed prior to Unit 2 start-up following the implementation of the power uprate license amendment.

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 203, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Additional Conditions.

ENCLOSURE 7

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS
UPDATE OF OPERATING LICENSES

MARKED-UP OPERATING LICENSE PAGES - UNIT NO. 2

CAROLINA POWER & LIGHT COMPANY
DOCKET NO. 50-324
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2
UPDATED FACILITY OPERATING LICENSE

License No. DPR-62

1. The Atomic Energy Commission (the Commission) having found that:
 - A. The application for license 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 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 (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. 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) 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 rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-62 subject to the conditions for protection of the environment set forth herein is in accordance with Appendix D to 10 CFR Part 50, of the Commission's regulations and all applicable requirements have been satisfied; and

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- I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, and 70.23 and 70.31.
2. Facility Operating License No. DPR-62 is hereby issued to the Carolina Power & Light Company to read as follows:
 - A. This license applies to the Brunswick Steam Electric Plant, Unit 2, a boiling water reactor and associated equipment (the facility), owned by the Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency and operated by Carolina Power and Light Company. 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 Carolina Power & Light Company:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of the 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 license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source, 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) Carolina Power & Light Company shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Report, dated November 22, 1977, as supplemented April 1979, June 11, 1980, December 30, 1986, December 6, 1989, July 28, 1993, and February 10, 1994 respectively, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2558 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 233, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

For Surveillance ^{Facility} Requirements (SRs) that are new in Amendment 233 to ~~Final~~ 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.

(3)

Carolina Power & Light Company will undertake a program for seismic monitoring for a minimum of two years unless termination is earlier approved by the NRC staff. The program and its control will be conducted in general conformity with the document "Brunswick Steam Electric Plant Program for Seismic Monitoring" dated June 10, 1975 as revised June 27, 1975 and attached hereto as Appendix A. The program will include: 1) not less than ten seismic monitoring stations (seven permanent and three portable), in an array approved by the NRC staff, unless a lesser number is approved by the NRC staff in writing, and 2) quarterly reports on the monitoring data to be submitted to the NRC. Should the NRC staff determine that initiation of Phase II as described within the program within the two year monitoring period, or Phase III following initiation of Phase II, is required the licensee will either comply with a request to proceed to Phase II (or Phase III) or immediately request and be granted a hearing on the issue of whether the data on which the staff's request is based justifies the initiation of Phase II (or Phase III) under the program for seismic monitoring agreed to by the licensee and the NRC staff. Nothing herein will be construed as precluding changes in the program by the licensee which do not adversely affect the quantity of information derived from the monitoring program. NRC will be informed of any such changes in the quarterly report.

Deleted by
Amendment
No.

(4) Equalizer Valve Restriction

The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operations.

Insert Attached

(5) Deleted by Amendment No. 233.

(6) The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21 are entitled: "Brunswick Steam Electric Plant Industrial Security Plan," with revisions submitted through September 23, 1987; "Brunswick Steam Electric Plant Security Personnel Training and Qualification Plan," with revisions through January 20, 1987; and "Brunswick Steam Electric Plant Safeguards Contingency Plan," with revisions submitted through March 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

(7) Deleted by Amendment No. 152.

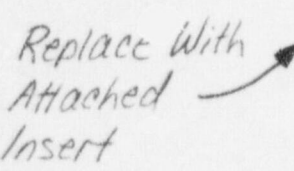
(8) Deleted by Amendment No. 152.

D. This license is subject to the following additional conditions for the protection of the environment:

a. Deleted by Amendment No. 79.

b. Deleted by Amendment No. 79.

c. Deleted by Amendment No. 79.

d. *Replace With Attached Insert*  The licensee shall comply with the requirements of the Environmental Technical Specifications which accompany the operating license and, to the extent that such requirements are modified by conditions contained in a permit, hereafter issued pursuant to Section 402 of the Federal Water Pollution Control Act, as amended, the licensee shall comply with the effluent limitations contained in such permit when they become applicable.

E. This license is effective as of the date of issuance and shall expire at midnight on December 27, 2014.

Insert for License Condition 2.C.(4)

, 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.

Insert for License Condition 2.D.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.

F. Deleted by Amendment No. 98.

G. Deleted by Amendment No. 98.

H. Augmented Off-Gas System Modifications

The licensee shall proceed with the necessary design, procurement and construction of the modifications to the augmented off-gas system. By July 15, 1983, the Licensee shall submit proposed Technical Specifications which incorporate effluent limits that reflect the required operation of the augmented off-gas system. Within two months following the extended outage scheduled to begin in March 1984, the Licensee shall have the augmented off-gas system operable, and the system shall operate in accordance with the referenced Technical Specifications, as issued.

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):

(1) Control Rod Drive (CRD) System

During initial start-up testing following implementation of the power uprate license amendment, the licensee shall determine that adequate CRD System cooling and drive flow is available under power uprate conditions. If adequate CRD System cooling and drive flow is not available under power uprate conditions, the licensee shall repair or modify the CRD System, as necessary, to assure that the system will continue to carry out its functions at uprated conditions.

(2) Recirculation Pump Motor Vibration

Upon implementation of the power uprate license amendment, perform monitoring of recirculation pump motor vibration during the initial power ascension for uprated power conditions. Vibration and noise shall be evaluated prior to and at uprated conditions to ensure no significant increase in vibration or noise occurs with power uprate.

Deleted by
Amendment
No.

(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) Equipment Qualification

Environmental qualification of safety-related mechanical equipment with non-metallic components affected by uprated radiation conditions shall be resolved prior to Unit 1 start-up for Cycle 11 operation either by:

- (a) Refined radiation calculations (location specific), and/or
- (b) Slightly reducing the qualified life, and/or
- (c) Assessing the qualification bases by demonstrating qualification based on actual test and materials threshold data while maintaining the regulatory margin, and/or
- (d) Assessing the impact of the radiation test and/or published threshold data on the material properties and its safety function.

Deleted by
Amendment
No.

(5) Human Factors

(a) Simulator Modification

Prior to the initial start-up following implementation of the power uprate license amendment, the simulator shall be modified to match the uprated Unit 2 control room, as close as possible.

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 233, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Additional Conditions.