

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

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 199 License No. DPR-71

- 1. The Fluclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated November 16, 1994, as supplemented an February 14, 1995, and April 9, 1998, 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;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment 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;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. DPR-71 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 199, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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A E Edison Pao-Tsin Kuo, Acting Director for Project Directorate II-1

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 29, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 199

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages	Insert Pages
3/4 6-9	3/4 6-9
3/4 6-10	3/4 6-10
3/4 6-10a	3/4 6-10a
B3/4 6-4	B3/4 6-4

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3/4.6.2 DEPRESSURIZATION SYSTEMS

SUPPRESSION CHAMBER

LIMITING CONDITION FOR OPERATION

- 3.6.2.1 The suppression chamber shall be OPERABLE with:
 - a. The pool water:
 - 1. Level between -27 inches and -31 inches, and a
 - 2. Maximum average temperature of 95°F during OPERATIONAL CONDITION 1 or 2, except that the maximum average temperature may be permitted to increase to:
 - a) 105°F during testing which adds heat to the suppression chamber.
 - b) 110°F with THERMAL POWER less than or equal to 1% of RATED THERMAL POWER.
 - c) 120°F with the main steam line isolation valves closed following a scram.
 - b. (Deleted)
 - c. A total leakage from the drywell to the suppression chamber of less than the equivalent leakage through a 1-inch diameter orifice at a differential pressure of 1 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With the suppression chamber water level outside the above limits. restore the water level to within the limits within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 1 or 2 with the suppression chamber average water temperature greater than 95°F, restore the average temperature to less than or equal to 95°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except, as permitted above:

LIMITING CONDITIONS FOR OPERATION (Continued)

ACTION: (Continued)

- 1. With the suppression chamber average water temperature greater than 105°F during testing which adds heat to the suppression chamber, stop all testing which adds heat to the suppression chamber and restore the average temperature to less than or equal to 95°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- With the suppression chamber average water temperature greater than 110°F manually scram the reactor and operate at least one residual heat removal loop in the suppression pool cooling mode.
- 3. With the suppression chamber average water temperature greater than 120°F, depressurize the reactor pressure vessel to less than 200 psig within 12 hours.
- c. (Deleted)
- d. (Deleted)
- e. With the drywell-to-suppression chamber bypass leakage in excess of the limit, restore the bypass leakage to within the limit prior to increasing reactor coolant temperature above 212°F.

SURVEILLANCE REQUIREMENTS

- 4.6.2.1 The suppression chamber shall be demonstrated OPERABLE:
 - a. By verifying the suppression chamber water volume to be within the limits at least once per 24 hours.
 - b. At least once per 24 hours in OPERATIONAL CONDITION 1 or 2 by verifying the suppression chamber average water temperature to be less than or equal to 95°F. except:
 - 1. At least once per 5 minutes during testing which adds heat to the suppression chamber, by verifying the suppression chamber average water temperature to be less than or equal to 105°F.

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SURVEILLANCE REQUIREMENTS (Continued)

- At least once per hour when suppression chamber average water temperature is greater than 95°F. by verifying:
 - a) Suppression chamber average water temperature to be less than or equal to 110°F. and
 - b) THERMAL POWER to be less than or equal to 1% of RATED THERMAL POWER.
- 3. At least once per 30 minutes following a scram with suppression chamber average water temperature greater than 95°F, by verifying suppression chamber average water temperature less than or equal to 120°F.
- c. By an external visual examination of selected emergency core cooling system suction line penetrations of the suppression chamber enclosure prior to taking the reactor from COLD SHUTDOWN after safety/relief valve operation with the suppression chamber average water temperature greater than or equal to 160°F and reactor coolant system pressure greater than 200 psig.
- d. (Deleted)
- e. At least once per 18 months by:
 - A visual inspection of the accessible interior of the suppression chamber and exterior of the suppression chamber enclosure.

BASES

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS (Continued)

Experimental data indicate that excessive steam condensing loads can be avoided if the peak temperature of the pressure suppression pool is maintained below 160°F during any period of relief valve operation with sonic conditions at the discharge exit. Specifications have been placed on the envelope of reactor operating conditions so that the reactor can be depressurized in a timely manner to avoid the regime of potentially high pressure suppression chamber loadings.

Because of the large volume and thermal capacity of the pressure suppression pool. the volume and temperature normally changes very slowly. and monitoring these parameters daily is sufficient to establish any temperature trends. By requiring the pressure suppression pool temperature to be continually monitored and frequently logged during periods of significant heat addition, the temperature trends will be closely followed so that appropriate action can be taken. The requirement for an external visual examination following any event where potentially high loadings could occur provides assurance that no significant damage was encountered. Particular attention should be focused on structural discontinuities in the vicinity of the relief valve discharge since these are expected to be the points of highest stress.

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event a relief valve inadvertently opens or sticks open. As a minimum this action shall incluce: (1) use of all available means to close the valve. (2) initiate suppression pool water cooling heat exchangers. (3) initiate reactor shutdown, and (4) if other relief valves are used to depressurize the reactor. their discharge shall be separated from that of the stuck-open relief valve to assure mixing and uniformity of energy insertion to the pool.

3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

The OPERABILIT? of the primary containment isolation valves ensures that the primary containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the primary containment atmosphere or pressurization of the containment. Primary containment isolation within the time limits specified ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.



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

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 229 License No. DPR-62

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated November 16, 1994, as supplemented on February 14, 1995, and April 9, 1998, 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;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment 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;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. DPR-62 is hereby amended to read as follows:

(2) **Technical Specifications**

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The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 229, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

This license amendment is effective as of the date of its issuance and shall be 3. implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A E Edward Pao-Tsin Kuo, Acting Director for Project Directorate II-1

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 29, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 229

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages	Insert Pages
3/4 6-9	3/4 6-9
3/4 6-10	3/4 6-10
3/4 6-10a	3/4 6-10a
B3/4 6-4	B3/4 6-4

3/4.6.2 DEPRESSURIZATION SYSTEMS

SUPPRESSION CHAMBER

LIMITING CONDITION FOR OPERATION

- 3.6.2.1 The suppression chamber shall be OPERABLE with:
 - a. The pool water:
 - 1. Level between -27 inches and -31 inches, and a
 - 2. Maximum average temperature of 95°F during OPERATIONAL CONDITION 1 or 2. except that the maximum average temperature may be permitted to increase to:
 - a) 105°F during testing which adds heat to the suppression chamber.
 - b) 110°F with THERMAL POWER less than or equal to 1% of RATED THERMAL POWER.
 - c) 120°F with the main steam line isolation valves closed following a scram.
 - b. (Deleted)
 - c. A total leakage from the drywell to the suppression chamber of less than the equivalent leakage through a 1-inch diameter orifice at a differential pressure of 1 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With the suppression chamber water level outside the above limits. restore the water level to within the limits within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 1 or 2 with the suppression chamber average water temperature greater than 95°F, restore the average temperature to less than or equal to 95°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except, as permitted above:

LIMITING CONDITIONS FOR OPERATION (Continued)

ACTION: (Continued)

- With the suppression chamber average water temperature greater than 105°F during testing which adds heat to the suppression chamber. stop all testing which adds heat to the suppression chamber and restore the average temperature to less than or equal to 95°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- With the suppression chamber average water temperature greater than 110°F manually scram the reactor and operate at least one residual heat removal loop in the suppression pool cooling mode.
- 3. With the suppression chamber average water temperature greater than 120°F, depressurize the reactor pressure vessel to less than 200 psig within 12 hours.
- c. (Deleted)
- d. (Deleted)
- e. With the drywell-to-suppression chamber bypass leakage in excess of the limit, restore the bypass leakage to within the limit prior to increasing reactor coolant temperature above 212°F.

SURVEILLANCE REQUIREMENTS

- 4.6.2.1 The suppression chamber shall be demonstrated OPERABLE:
 - a. By verifying the suppression chamber water volume to be within the limits at least once per 24 hours.

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 24 hours in OPERATIONAL CONDITION 1 or 2 by verifying the suppression chamber average water temperature to be less than or equal to 95°F. except:
 - 1. At least once per 5 minutes during testing which adds heat to the suppression chamber. by verifying the suppression chamber average water temperature to be less than or equal to 105°F.
 - 2. At least once per hour when suppression chamber average water temperature is greater than 95°F. by verifying:
 - a) Suppression chamber average water temperature to be less than or equal to 110°F. and
 - b) THERMAL POWER to be less than or equal to 1% of RATED THERMAL POWER.
 - 3. At least once per 30 minutes following a scram with suppression chamber average water temperature greater than 95°F, by verifying suppression chamber average water temperature less than or equal to 120°F.
- c. By an external visual examination of selected emergency core cooling system suction line penetrations of the suppression chamber enclosure prior to taking the reactor from COLD SHUTDOWN after safety/relief valve operation with the suppression chamber average water temperature greater than or equal to 160°F and reactor coolant system pressure greater than 200 psig.
- d. (Deleted)
- e. At least once per 18 months by:
 - A visual inspection of the accessible interior of the suppression chamber and exterior of the suppression chamber enclosure.

BASES

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS (Continued)

Experimental data indicate that excessive steam condensing loads can be avoided if the peak temperature of the pressure suppression pool is maintained below 160°F during any period of relief valve operation with sonic conditions at the discharge exit. Specifications have been placed on the envelope of reactor operating conditions so that the reactor can be depressurized in a timely manner to avoid the regime of potentially high pressure suppression chamber loadings.

Because of the large volume and thermal capacity of the pressure suppression pool. the volume and temperature normally change very slowly, and monitoring these parameters daily is sufficient to establish any temperature trends. By requiring the pressure suppression pool temperature to be continually monitored and frequently logged during periods of significant heat addition, the temperature trends will be closely followed so that appropriate action can be taken. The requirement for an external visual examination following any event where potentially high loadings could occur provides assurance that no significant damage was encountered. Particular attention should be focused on structural discontinuities in the vicinity of the relief valve discharge since these are expected to be the points of highest stress.

In addition to the limits on temperature of the suppression chamber pool water, operating procedures define the action to be taken in the event a relief valve inadvertently opens or sticks open. As a minimum this action shall include: (1) use of all available means to close the valve, (2) initiate suppression pool water cooling heat exchangers, (3) initiate reactor shutdown, and (4) if other relief valves are used to depressurize the reactor. their discharge shall be separated from that of the stuck-open relief valve to assure mixing and uniformity of energy insertion to the pool.

3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

The OPERABILITY of the primary containment isolation valves ensures that the primary containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the primary containment atmosphere or pressurization of the containment. Primary containment isolation within the time limits specified ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

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