

June 20, 1986

DPR 016

Docket Nos. 50-325/324

Mr. E. E. Utley
Senior Executive Vice President
Power Supply and Engineering & Construction
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 98 and 126 to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your submittal of December 10, 1985.

The amendments change the Technical Specifications (TS) by clarifying the operability requirements for the core spray system.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register notice.

Sincerely,

/s/

Ernest D. Sylvester, Project Manager
BWR Project Directorate #2
Division of BWR Licensing

Enclosures:

1. Amendment No. 98 to License No. DPR-71
2. Amendment No. 126 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

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Mr. E. E. Utley
Carolina Power & Light Company

Brunswick Steam Electric Plant
Units 1 and 2

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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98
License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee) dated December 10, 1985 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.
2. 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 98 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 20, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 98

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Revise the Appendix A Technical Specifications as follows:

Pages

3/4 5-4

3/4 5-5

EMERGENCY CORE COOLING SYSTEMS3/4.5.3 LOW PRESSURE COOLING SYSTEMSCORE SPRAY SYSTEMLIMITING CONDITION FOR OPERATION

3.5.3.1 Two independent Core Spray System (CSS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One pump, and
- b. An OPERABLE flow path capable of taking suction from at least one of the following OPERABLE sources and transferring the water through the spray sparger to the reactor vessel;
 1. In OPERATIONAL CONDITION 1, 2, or 3, from the suppression pool.
 2. In OPERATIONAL CONDITION 4 or 5*;
 - a) From the suppression pool, or
 - b) When the suppression pool is inoperable, from the condensate storage tank containing at least 150,000 gallons of water.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5*.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3;
 1. With one CSS subsystem inoperable, POWER OPERATION may continue provided both LPCI subsystems are OPERABLE; restore the inoperable CSS subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 2. With both CSS subsystems inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

* The core spray system is not required to be OPERABLE provided that the reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

EMERGENCY CORE COOLING SYSTEMSLIMITING CONDITION FOR OPERATION (Continued)ACTION (Continued)

3. In the event the CSS is actuated and injects water into the reactor coolant system, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.
- b. In OPERATIONAL CONDITION 4 or 5*;
1. With one CSS subsystem inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE within 4 hours; otherwise, suspend all operations that have potential for draining the reactor vessel.
 2. With both CSS subsystems inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE and both LPCI subsystems are OPERABLE within 4 hours. Otherwise, suspend all operations that have a potential for draining the reactor vessel and verify that at least one LPCI subsystem is OPERABLE within 4 hours.
 3. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.5.3.1 Each CSS subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying the condensate storage tank minimum required volume when the condensate storage tank is required to be OPERABLE.
- b. At least once per 31 days by:
 1. Verifying that the system piping from the pump discharge valve to the system isolation valve is filled with water.

* The core spray system is not required to be OPERABLE provided that the reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.



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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 126
License No. DPR-62

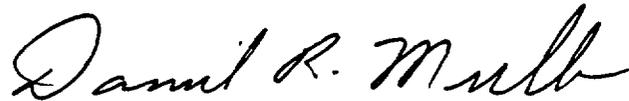
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee) dated December 10, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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.
2. 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

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 126, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 20, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 126

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Revise the Appendix A Technical Specifications as follows:

Pages

3/4 5-4

3/4 5-5

EMERGENCY CORE COOLING SYSTEMS3/4.5.3 LOW PRESSURE COOLING SYSTEMSCORE SPRAY SYSTEMLIMITING CONDITION FOR OPERATION

3.5.3.1 Two independent Core Spray System (CSS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One pump, and
- b. An OPERABLE flow path capable of taking suction from at least one of the following OPERABLE sources and transferring the water through the spray sparger to the reactor vessel:
 1. In OPERATIONAL CONDITION 1, 2, or 3, from the suppression pool.
 2. In OPERATIONAL CONDITION 4 or 5*:
 - a) From the suppression pool, or
 - b) When the suppression pool is inoperable, from the condensate storage tank containing at least 150,000 gallons of water.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5*.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3:
 1. With one CSS subsystem inoperable, POWER OPERATION may continue provided both LPCI subsystems are OPERABLE; restore the inoperable CSS subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 2. With both CSS subsystems inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

* The core spray system is not required to be OPERABLE provided that the reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

EMERGENCY CORE COOLING SYSTEMSLIMITING CONDITION FOR OPERATION (Continued)ACTION (Continued)

3. In the event the CSS is actuated and injects water into the reactor coolant system, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.
- b. In OPERATIONAL CONDITION 4 or 5*:
1. With one CSS subsystem inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE within 4 hours; otherwise, suspend all operations that have a potential for draining the reactor vessel.
 2. With both CSS subsystems inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE and both LPCI subsystems are OPERABLE within 4 hours. Otherwise, suspend all operations that have a potential for draining the reactor vessel and verify that at least one LPCI subsystem is OPERABLE within 4 hours.
 3. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.5.3.1 Each CSS subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying the condensate storage tank minimum required volume when the condensate storage tank is required to be OPERABLE.
- b. At least once per 31 days by:
 1. Verifying that the system piping from the pump discharge valve to the system isolation valve is filled with water.

* The core spray system is not required to be OPERABLE provided that the reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 98 TO FACILITY LICENSE NO. DPR-71 AND
AMENDMENT NO. 126 TO FACILITY LICENSE NO. DPR-62
CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

In a letter dated December 10, 1985 the Carolina Power & Light Company requested changes to the Technical Specifications (TS) for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. The proposed change involve administrative clarifications to ambiguous wording of footnotes in TS 3/4.5.3.1 on the core spray system.

2.0 EVALUATION

Operability of the core spray system is required while in operational conditions 1, 2, 3, 4, or 5. However, when in operational condition 5, the core spray system need not be operable if the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within specific levels. In the footnote, this exception is stated in part: "The core spray system is not required to be OPERABLE when the suppression pool is inoperable provided..." This footnote is found inconsistent with the guidance provided in the GE BWR/4 Standard Technical Specifications. It is the purpose of this revision to delete reference to suppression pool operability.

It is noted that, as stated, the footnote could be interpreted to imply that core spray may not be inoperable while the suppression pool is operable. The deletion of reference to suppression pool operability in the footnote will minimize operator confusion and ensure operational flexibility or modification and maintenance of the core spray system.

In the event of an accidental draining of vessel water when the core spray system is inoperable in operational condition 5, adequate assurance of core flooding is provided by one low pressure coolant injection (LPCI) loop. Therefore, it is concluded that the risk posed to the public health and safety as a result of the postulated event is very low. This change to TS 3/4.5.3.1 in the core spray system is deemed consistent with the requirements in the current Technical Specifications that involve the Reactor Protection System and is also consistent with the requirements for the ECCS in the Standard Technical Specifications for the BWR/4's.

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Based on our review, described above, we conclude that the proposed changes to the Technical Specifications for Brunswick Units 1 and 2 are acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite; and that there should be no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 20 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of the amendments.

4.0 CONCLUSION

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

Principal Contributor: D. Yue

Dated: June 20, 1986