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Docket No. 50-325

March 15, 1983

Mr. E. E. Utley  
 Executive Vice President  
 Carolina Power & Light Company  
 P. O. Box 1551  
 Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendment No. 55 to Facility Operating License No. DPR-71 for the Brunswick Steam Electric Plant, Unit 1. The amendment consists of changes to the Technical Specifications in response to your application of November 8, 1982 as supplemented January 6 and February 8, 1983.

The amendment changes the Technical Specifications to permit postponement of a flow test of the core spray system until within 48 hours after restoration of the suppression chamber to operable status but, in any case, no later than June 15, 1983.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

ORIGINAL SIGNED BY

Sam D. MacKay, Project Manager  
 Operating Reactors Branch #2  
 Division of Licensing

Enclosures:

1. Amendment No. 55 to DPR-71
2. Safety Evaluation
3. Notice

cc/w/enclosures:  
 See next page

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**F.R. NOTICE  
 AMENDMENT**

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 3/9/83

OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:OR	OELD		
SURNAME	S. Norris	S. MacKay:pr	D. Vassallo	G. Larnas	M. Larnas		
DATE	2/24/83	2/25/83	3/19/83	2/10/83	3/14/83		

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

cc:

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U. S. Environmental Protection Agency  
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James P. O'Reilly  
Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303



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. 55  
License No. DPR-71

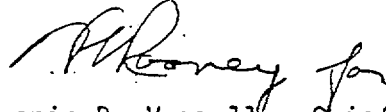
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company dated November 8, 1982 and supplemented by letters dated January 6 and February 8, 1983 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 55, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Domenic B. Vassallo, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 15, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 55

FACILITY OPERATING LICENSE NO. DPR-35

DOCKET NO. 50-325

Revise the Appendix A Technical Specifications by removing page 3/4 5-6 and inserting revised page 3/4 5-6. The changed area is indicated by vertical line.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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2. Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- c. At least once per 92 days by:
- \* 1. Verifying that each CSS pump can be started from the control room and develops a flow of at least 4625 gpm on recirculation flow against a system head corresponding to a reactor vessel pressure of  $\geq$  113 psig.
  2. Performing a CHANNEL CALIBRATION of the core spray header  $\Delta$ P instrumentation (E21-dPIS-NOO4A,B) and verifying the set point to be 5,  $\pm$ 1.5, psid greater than the normal indicated  $\Delta$ P.
- d. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel is excluded from this test.

- \* The surveillance test required by this license in Appendix A, paragraph 4.5.3.1.C.1, regarding the flow test of the core spray system may be postponed during the current refueling outage (Reload 3) until within 48 hours after restoration of the suppression chamber to operable status but in any case no later than June 15, 1983.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. DPR-71

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

1.0 Introduction

By letter dated November 8, 1982 as supplemented January 6, and February 8, 1983, the Carolina Power & Light Company (the licensee) requested an amendment to Facility Operating License No. DPR-71 for the Brunswick Steam Electric Plant (BSEP) Unit No. 1. The amendment would permit postponement of one full-flow test of the core spray pumps until the primary containment suppression chamber is restored to its operational condition.

2.0 Background

Brunswick Unit 1 was shut down on December 10, 1982 for refueling, maintenance work and modification of the Mark I torus suppression pool. In conjunction with the latter, the suppression pool has been drained and therefore it is now not possible to perform the usual full-flow surveillance test of the Core Spray System (CSS) wherein water is pumped from the suppression pool and back into it.

Technical Specification 4.5.3.1.c.1 states:

4.5.3.1 Each CSS subsystem shall be demonstrated OPERABLE: ...

c. At least once per 92 days by:

1. Verifying that each CSS pump can be started from the control room and develops a flow of at least 4625 gpm on recirculation flow against a system head corresponding to a reactor vessel pressure of  $\geq 113$  psig.

In regard to this requirement, the full flow test was last performed on December 9th and December 10, 1982. However, the modifications to the suppression pool will extend beyond 92 days and are not expected to be completed until approximately 130 days after the last full flow test. The maximum permissible interval between full flow tests is presently 92 days, plus a 25 percent extension of surveillance intervals generally permitted by Technical Specification 4.0.2.a. Thus, the maximum permissible interval is presently 115 days.

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The licensee has requested that the maximum surveillance interval be extended until two days after the suppression pool is restored to operable status. Based on present planning, this would extend the surveillance interval from the present maximum 115 days to approximately 132 days. If another 55 days is allowed for contingencies in the completion of modification to the suppression pool, the total allowable surveillance interval would be approximately 187 days and would terminate on June 15, 1983. The licensee agrees that this termination date would provide ample time for the completion of modifications to the suppression pool and performance of the full flow test of the CSS.

### 3.0 Evaluation

We have considered the safety significance of extending the present surveillance interval for performing a full flow test of the Core Spray System. The interval would be extended from a nominal 92-day interval to a maximum of 187 days. We have considered the potential need for a CSS during this shutdown period, the availability of the CSS, the verification of operability of the CSS by other surveillance tests, the availability of other means of cooling the reactor core and the past performance of the CSS.

The licensee has provided the following information in response to these considerations.

1. Normally, in the refueling condition (OPERATIONAL CONDITION 5), the CSS is not required to be operable (and thus to have surveillance testing performed) if all of the following conditions are met: (1) the reactor vessel head is removed, (2) the refueling cavity is flooded, and (3) the spent fuel pool gates are removed.

The CSS will be available for operation, if needed, during the relatively short interval when operability is required due to plant conditions (i.e., draining the refueling cavity during week 14 of the outage until refilling of the suppression chamber).

2. The CSS consists of two independent subsystems, each with 100% capacity, thus providing redundant safety system subsystems.
3. One subsystem of the CSS will remain unaffected by the vent valve relocation modification.
4. Redundant systems that will be available to supply core reflood capability include the condensate system and the service water injection system, with a small volume available from the control rod drive system.
5. Surveillance is being performed every 12 hours to verify that the CSS has an operable water source (TS 4.5.3.1.a).



Surveillance is being performed every 31 days to verify that the CSS is filled with water (TS 4.5.3.1.b.1).

Surveillance is being performed every 31 days to verify that all valves in the CSS flow path are properly aligned (TS4.5.3.1.b.2).

Surveillance is being performed every 92 days to verify the operability of the core spray header differential pressure instrumentation (TS 4.5.3.1.c.2).

6. A review of previous CSS operability testing shows that the system is extremely reliable, as no failures have been identified since 1978.

Based on this information and the considerations above, we have concluded that extending the surveillance interval for a full flow test of the CSS from 92 days to 187 days does not constitute a significant reduction in the verification of operability or the availability of this system. Furthermore, if the CSS were not available, other systems would be available to provide adequate cooling of reactor core. Therefore, we find the proposed amendment to be acceptable.

#### 4.0 Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

#### 5.0 Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 15, 1983

Principal Contributor: Sam MacKay

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-325

CAROLINA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 55 to Facility Operating License No. DPR-71 issued to Carolina Power & Light Company (the licensee) which revised the Technical Specifications for operation of the Brunswick Steam Electric Plant, Unit 1 (the facility), located in Brunswick County, North Carolina. The amendment is effective as of the date of issuance.

The amendment changes the Technical Specifications to permit postponement of a flow test of the core spray system until within 48 hours after restoration of the suppression chamber to operable status but, in any case no later than June 15, 1983.

The application for amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of the amendment was not required since the amendment does not involve a significant hazards consideration.

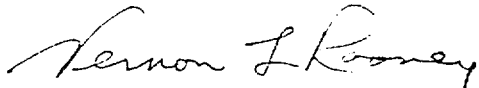
The Commission has determined that the issuance of the amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of the amendment.

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For further details with respect to this action, see (1) the application for amendment dated November 8, 1982 with supplements dated January 6th and February 8, 1983. (2) Amendment No. 55 to License No. DPR-71 and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room 1717 H Street, N. W., Washington, D. C. and at the Southport-Brunswick County Library, 109 West Moore Street, Southport, North Carolina 28461. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 15th day of March 1983.

FOR THE NUCLEAR REGULATORY COMMISSION



Vernon L. Rooney, Acting Chief  
Operating Reactors Branch #2  
Division of Licensing