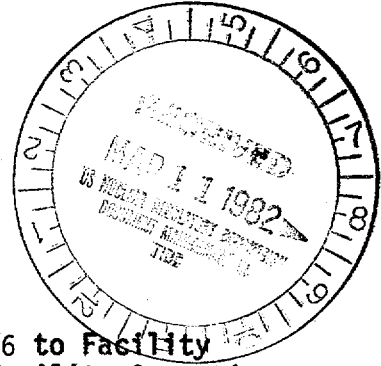


March 5, 1982

Docket Nos. 50-325  
50-324

Mr. J. A. Jones  
Senior Executive Vice President  
Carolina Power & Light Company  
336 Fayetteville Street  
Raleigh, North Carolina 27602



Dear Mr. Jones:

The Commission has issued the enclosed Amendment No. 46 to Facility Operating License No. DPR-71 and Amendment No. 69 to Facility Operating License No. DPR-62 for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2, respectively. These amendments consist of changes to the BSEP Unit 1 Technical Specifications and a change to the BSEP Unit 2 operating license in response to your application dated February 3, 1982, as supplemented by your February 25, 1982 submittal.

The amendments permit an extension of certain surveillance intervals to allow the required testing to be performed during a Brunswick Unit 2 outage scheduled for spring 1982.

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

Sincerely,

*V. Rooney for*

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

*CP*

Enclosures:

- 1. Amendment No. 46 to DPR-71
- 2. Amendment No. 69 to DPR-62
- 3. Safety Evaluation
- 4. Notice

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cc: w/enclosures  
See next page

*no legal objection to amendment  
- FR notice only*

OFFICE	ORB#2 SNorris	ORB#2 JVan Vliet	ORB#2 D Vassallo	AD OR TNovak	OELD		
SURNAME							
DATE	3/1/82	3/1/82	3/1/82	3/1/82	3/4/82		

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PDR ADCK 05000324  
PDR

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Mr. J. A. Jones  
Carolina Power & Light Company

cc:

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Raleigh, North Carolina 27602

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Shaw, Pittman, Potts & Trowbridge  
1800 M Street, N. W.  
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Plant Manager  
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Southport, North Carolina 28461

Mr. Franky Thomas, Chairman  
Board of Commissioners  
P. O. Box 249  
Bolivia, North Carolina 28422

Mrs. Chrys Baggett  
State Clearinghouse  
Budget & Management  
116 West Jones Street  
Raleigh, North Carolina 27603

Southport - Brunswick County Library  
109 W. Moore Street  
Southport, North Carolina 28461

U. S. Environmental Protection Agency  
Region IV Office  
Regional Radiation Representative  
345 Courtland Street, N. W.  
Atlanta, Georgia 30308

Resident Inspector  
U. S. Nuclear Regulatory Commission  
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Southport, North Carolina 28461

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. 46  
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 February 3, 1982, as supplemented by letter dated February 25, 1982, 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. 46, 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 5, 1982

ATTACHMENT TO LICENSE AMENDMENT NO.46

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Remove the following pages and replace with identically numbered pages.

3/4 8-3

3/4 8-4

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying the fuel level in the day fuel tank,
  3. Verifying the fuel transfer pump can be started and transfers fuel from the day tank to the engine mounted tank,
  4. Verifying the diesel starts from ambient condition and accelerates to at least 514 rpm in  $\leq 10$  seconds,
  5. Verifying the generator is synchronized, loaded to  $\geq 1750$  kw, and operates for  $\geq 15$  minutes, and
  6. Verifying the diesel generator is aligned to provide standby power to the associated emergency buses.
- b. At least once per 31 days by verifying the fuel level in the plant fuel storage tank.
- c. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM-D975-74 when checked for viscosity, water and sediment,
- d. At least once per 18 months during shutdown by:
1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service,
  2. Verifying the generator capability to reject a load equal to one core spray pump without tripping,
  3. Simulating a loss of offsite power in conjunction with an emergency core cooling system test signal, and:
    - a) Verifying de-energization of the emergency buses and load shedding from the emergency buses.
    - b)\* Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency buses with permanently connected loads, energizes the auto-connected loads through the load sequence relays and operates for  $\geq 5$  minutes while its generator is loaded with the emergency loads.

\*For the verification of this item scheduled for completion by April 29, 1982, a onetime-only exemption is allowed to extend this inspection until before the completion of the Unit 2 spring 1982 refueling outage, scheduled to commence by April 30, 1982.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Verifying that on the emergency core cooling system test signal, all diesel generator trips except engine overspeed, generator differential, low lube oil pressure, reverse power, loss of field and phase overcurrent with voltage restraint, are automatically bypassed.
5. Verifying the diesel generator operates for  $\geq$  60 minutes while loaded to  $\geq$  3500 kw.
6. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 3850 kw.
- 7.\* Verifying that the automatic load sequence relays are OPERABLE with each load sequence time within 10% of the required value.

\*For the verification of this item scheduled for completion April 29, 1982, a onetime-only exemption is allowed to extend this inspection until before the completion of the Unit 2 spring 1982 refueling scheduled to commence by April 30, 1982.



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. 69  
License No. DPR-62

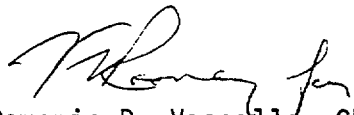
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company dated February 3, 1982, as supplemented by letter dated February 25, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (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 adding paragraph 2.C.(2)(a) to Facility Operating License No. DPR-62 to read as follows:

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

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

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

Date of Issuance: March 5, 1982



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 46 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 69 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

Author: J. Van Vliet

I. INTRODUCTION

By letter dated February 3, 1982, Carolina Power & Light Company (Licensee) requested an amendment to the Brunswick Units 1 and 2 Operating Licenses. The proposed amendments would extend certain surveillance intervals to allow required testing to be performed during the upcoming Brunswick Unit 2 refueling outage. The tests involve 18-month surveillance normally performed during refueling outages. The licensee provided supplemental information under a February 25, 1982 submittal.

II. BACKGROUND AND DISCUSSION

The licensee's request for an extension of certain surveillance intervals was submitted as a result of extended in-cycle maintenance outages on the Brunswick units. These outages have acted to delay the refuelings such that the Brunswick Unit 2 refueling outage is currently not scheduled to begin prior to expiration of certain surveillance intervals. The licensee has determined that system load requirements will necessitate maintaining Brunswick Unit 2 in service until its refueling outage scheduled to begin prior to May 1, 1982. The licensee has thus determined that the optimum alternative is to complete all of these surveillance requirements during the upcoming refueling outage.

The licensee's submittal included information demonstrating that the systems involved have a record of satisfactory performance on the first attempt during the most recent tests, as well as a satisfactory record of earlier tests. The licensee has also performed a safety analysis and concluded that extending these surveillance intervals will not impact:

- (1) The probability of occurrence or consequences of an accident or malfunction of equipment important to safety previously evaluated in the Final Safety Analysis Report (FSAR); (2) the

possibility of creation of an accident or malfunction of a different type than any previously evaluated in the FSAR; and (3) the margin of safety as defined in the bases for Technical Specifications.

### III. EVALUATION

The NRC staff's requirement for 18-month surveillance intervals was established to coincide and be consistent with nominal cycle lengths. Technical Specification Section 4.0.2, in recognition of the need for operational flexibility because of scheduling and performance considerations, establishes maximum time intervals within which surveillance requirements shall be performed.

Section 4.0.2 stipulates that: (1) the maximum allowable extension shall not exceed 25% of the surveillance interval and (2) the total maximum combined time interval for any three consecutive surveillance intervals shall not exceed 3.25 times the specified surveillance intervals. The licensee is proposing to temporarily expand the maximum allowable extension of Section 4.0.2 for certain surveillance requirements without altering the requirement addressing the three consecutive surveillance time intervals.

To judge the acceptability of extending the required surveillance intervals, we have categorized the specific system surveillances into two cases. Case 1 addresses those surveillance requirements for which the time interval is to be extended by seven days or less. Case 2 addresses those surveillance requirements for which the time interval is to be extended by eight days or more.

Case 1 addresses surveillance interval extensions of seven days or less for diesel generator load tests and certain isolation actuation instrumentation channel calibrations. The extensions requested by the licensee, when considered with respect to the presently required surveillance interval of 550 days, becomes essentially insignificant. For this reason we conclude that the extensions will not degrade the reliability of the systems in question and are, therefore, acceptable.

Case 2 addresses surveillance interval extensions of eight days or more for tests of the reactor protection system (RPS) position switch, automatic depressurization system (ADS) logic, turbine control valve (TCV) fast closure, reactor vessel low water level #1, and RPS logic. The requested extensions range from 23 days for the ADS logic tests to 56 days for the RPS logic tests. To evaluate these extensions, we considered the history of previous tests results, the length of the proposed extensions, and whether or not the extensions, if granted, could result in exceeding the Section 4.0.2 requirement that three consecutive tests be performed within 3.25 times the surveillance interval. For the TCV fast closure and reactor vessel low water level #1 tests, we also assessed whether or not the proposed extensions would exceed the requirement to test each logic train every 36 months, and each channel every 72 months.

The length of the proposed extensions ranges from 4% to 10% beyond the 25% surveillance interval extension permitted by Section 4.0.2. Considering that the surveillance intervals were initially established generically such that they coincide with nominal refueling cycles, we do not consider the requested extensions of up to 10% to be unreasonable. Providing further support for this position is the fact that none of the extensions, if granted, would result in exceeding the three consecutive test time interval requirement.

Additionally, the TCV fast closure and reactor vessel low water level #1 tests have other surveillance interval requirements which require testing each logic function every 36 months and each channel every 72 months. Our review has shown that implementing the proposed extensions will not result in exceeding either the channel or logic surveillance interval requirements for these tests.

The licensee has provided information showing that, for each test in question, the previous test was satisfactory on the first attempt and that each test also has a history of satisfactory results. Thus it seems reasonable to conclude that the probability of an undetected failure occurring during the test extension periods is very low.

Therefore, for the reasons cited above, we find the proposed extensions acceptable.

The licensee has proposed to implement the extensions, in part, by a license condition for Brunswick Unit 2 that prohibits operating in modes 1, 2, or 3 after May 1, 1982. This will require the plant to be in either mode 4 or mode 5 (cold shutdown or refueling) until the tests are complete. Because operating modes 4 and 5 do not require these tests to assure plant safety, we find this implementation approach to be acceptable.

#### IV. ENVIRONMENTAL CONSIDERATION

We have determined that the amendments do 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 amendments involve 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, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of the amendments.

#### V. CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 5, 1982

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-325 AND 50-324CAROLINA POWER & LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 46 and 69 to Facility Operating License Nos. DPR-71 and DPR-62 issued to Carolina Power & Light Company (the licensee) which revised the Technical Specifications for operation of the Brunswick Steam Electric Plant, Unit 1 and revised the license for Brunswick Steam Electric Plant, Unit 2. The units are located in Brunswick County, North Carolina. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications for Brunswick Unit 1 and the license for Brunswick Unit 2 to provide a one-time extension of certain surveillance intervals to allow the required testing to be performed during a Brunswick Unit 2 outage scheduled for spring 1982.

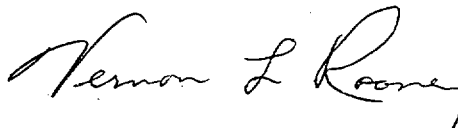
The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR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

The Commission has determined that the issuance of the amendments will not result in any significant environmental impact and that pursuant to 10 CFR Section 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 amendments.

For further details with respect to this action, see (1) the application for amendments dated February 3, 1982 and a supplemental submittal dated February 25, 1982, (2) Amendment Nos. 46 and 69 to License Nos. DPR-71 and DPR-62, 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 5th day of March 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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