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Docket Nos. 50-325  
and 50-324

September 9, 1982

Mr. J. A. Jones  
Senior Executive Vice President  
Carolina Power & Light Company  
P. O. Box 1551  
Raleigh, North Carolina 27602

Dear Mr. Jones:

The Commission has issued the enclosed Amendment Nos. 50 and 75 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 licenses in response to your submittal of July 3, 1982. The amendments were authorized by telephone on July 3, 1982 and subsequently confirmed by our letter dated July 6, 1982.

The amendments modify the licenses to extend from 72 hours to seven days the period of time that a diesel generator may remain inoperable before a plant shutdown must be initiated. The amendments are effective from July 1, 1982 through July 8, 1982, only.

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

Sincerely,

Original signed by

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

Enclosures:

1. Amendment No. 50 to DPR-71
2. Amendment No. 75 to DPR-62
3. Safety Evaluation
4. Notice

cc w/enclosures  
See next page

Previous concurrence sheet concurred on by:

DL:ORB#2	DL:ORB#2	DL:ORB#2
SNorris	JVanVliet:pob:MC	DVassallo
8/24/82	8/24/82	8/24/82

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P PDR

*[Handwritten signature]*

FR NOTICE  
AMENDMENT  
*[Handwritten initials]*

OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:OR	OELD
SURNAME	SNorris	JVanVliet:pob	Dvassallo	GLinas	<i>[Handwritten initials]</i>
DATE	8/24/82	8/24/82	8/24/82	8/26/82	8/26/82

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

cc:

Richard E. Jones, Esquire  
Carolina Power & Light Company  
336 Fayetteville Street  
Raleigh, North Carolina 27602

George F. Trowbridge, Esquire  
Shaw, Pittman, Potts & Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

Mr. Charles R. Dietz  
Plant Manager  
P. O. Box 458  
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  
P. O. Box 1057  
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 NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 50  
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 July 3, 1982 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, Facility Operating License No. DPR-71 is hereby amended by adding paragraph 2.C.(2)(b) to read as follows:
  - 2.C.(2)(b) Effective July 1, 1982, through July 8, 1982, Action statement "a" of Technical Specification 3.8.1.1 shall read as follows:

ACTION:

- a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing

Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within two hours and at least once per 12 hours thereafter; restore at least two offsite circuits and four diesel generators 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.

3. This license amendment is effective as of July 1, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Date of Issuance: September 9, 1982



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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BPUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 75  
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 July 3, 1982 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, Facility Operating License No. DPR-62 is hereby amended by adding paragraph 2.C.(2)(c) to read as follows:
  - 2.C.(2)(c) Effective July 1, 1982, through July 8, 1982, Action statement "a" of Technical Specification 3.8.1.1 shall read as follows:

ACTION:

- a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4

within two hours and at least once per 12 hours thereafter;  
restore at least two offsite circuits and four diesel generators  
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.

3. This license amendment is effective as of July 1, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Date of Issuance: September 9, 1982



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 50 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 75 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. A. Van Vliet

1.0 Introduction

By telecopied letter dated July 3, 1982, Carolina Power & Light Company (the licensee) proposed revisions to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed revisions provided for a temporary extension from 72 hours to seven days the period of time that a diesel generator could remain inoperable before a plant shutdown would have to be initiated. The licensee proposed that the extension remain effective from July 1, 1982 through August 31, 1982.

2.0 Background

While running diesel generator No. 2 on July 1, 1982 for routine surveillance, the licensee noticed that the jacket water cooling pump was not operating. The licensee secured the diesel generator, declared it inoperable and disassembled it to determine the problem. Subsequent inspection of the jacket water cooling pump shaft revealed that the flexible drive coupling plate had separated from the diesel crankshaft and was free-wheeling. The licensee expected that repair of the diesel generator, which included the custom manufacturing of a new plate, would take until July 8, 1982; well in excess of the applicable 72-hour limiting condition for operation (LCO) contained in the BSEP technical specifications.

3.0 Evaluation

The licensee based its request upon the following:

- (1) The custom technical specifications, under which BSEP was licensed and operated prior to conversion to standard technical specifications, provided a seven-day LCO for an inoperable diesel generator;
- (2) the reliability of off-site power both historically and at the time, was good;
- (3) the BSEP emergency power supply design is such that a generator failure will not jeopardize the effectiveness of core standby cooling systems; and,
- (4) diesel capacity is such that any three of the four diesel generators can supply all required loads for the safe shutdown of one unit and a design basis accident on the other unit.

We have reviewed each of the licensee's bases and verified that the system design and capacity can accommodate a design basis accident in one unit and a safe shutdown of the other unit, assuming a loss of off-site power and the failure of one diesel generator. (See Safety Evaluation of the Brunswick Steam Electric Station Units 1 and 2, November 1978.) Additional conservatism was added by the fact that BSEP Unit No. 2 would remain shutdown for the duration of the diesel generator repair period.

We noted the licensee's assessment of off-site power reliability and we also noted, from previously collected data, that diesel generator reliability at BSEP is consistent with reliability at other plants.

The licensee initially proposed that the extension of the LCO to seven days be effective from July 1, 1982 through August 31, 1982. This would have permitted the licensee to inspect each of the other diesel generators for indications of the same failure mechanism without restricting plant operations. We shared the licensee's concern for the potential failure of the remaining diesel generators to the extent that we did not consider unrestricted operation of both units to be warranted prior to inspection of the remaining diesel generators. Consequently, we requested that the licensee revise its request to be effective only through July 8, 1982. The licensee agreed. Additionally, the licensee committed to inspect and repair as necessary the remaining diesel generators prior to restart of either unit; BSEP Unit 1 having been shutdown, in the interim, for unrelated reasons.

Additionally, we consider the probability of occurrence of an event requiring diesel generator operation during a given seven-day period to be remote. We thus consider the probability of a second diesel generator failure, which would be required for a potentially unsafe condition to exist, during such an event to be even more remote.

We have concluded therefore, that, based upon the evaluation presented above, but particularly upon the adequacy of the system design with one unit shutdown, the proposed amendments are acceptable.

#### 4.0 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, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

## 5.0 Conclusion

### 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 an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 9, 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. 50 and 75 to Facility Operating License Nos. DPR-71 and DPR-62 issued to Carolina Power & Light Company (the licensee) which revised the licenses for operation of the Brunswick Steam Electric Plant, Units 1 and 2 (the facility), located in Brunswick County, North Carolina. The amendments are effective as of July 1, 1982 through July 8, 1982, only.

The amendments modify the licenses, for a limited time, to extend from 72 hours to seven days the period of time that a diesel generator may remain inoperable before a plant shutdown must be initiated.

The application for 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 these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these 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.

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For further details with respect to this action, see (1) the application for amendments dated July 3, 1982, (2) Amendment Nos. 50 and 75 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 9th day of September, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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