

Docket No. 50-224

JUL 14 1981

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. 61 to Facility Operating License No. DPR-62 for the Brunswick Steam Electric Plant, Unit No. 2, in response to your telecopied request of June 29, 1981. The amendment was issued orally by telephone on June 29, 1981.

The amendment modifies the Technical Specifications to permit a temporary exemption from the containment oxygen concentration limiting condition for operability requirement. A 72 hour exemption is effective while repairs are being made to the pipeline that supplies vaporized nitrogen used to inert containment.

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

Sincerely,

*for*  
*V. Rooney*  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

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Enclosures:

1. Amendment No. 61
2. Safety Evaluation
3. Notice

JUL 30 1981

cc w/encl:  
See next page

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Distribution:  
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NRC PDR  
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D. Eisenhut

*7/17/81*

S. Norris  
J. Van Vliet  
OELD  
OI&E (4)  
G. Deegan (4)

B. Scharf (10)  
J. Wetmore  
ACRS (10)  
OPA (Clare Miles)  
R. Diggs

NSIC  
TERA  
ASLAB

*FR NOTRE  
&  
AMENDMENT  
DILLY*

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|---------|-----------|--------------|-------------|----------|---------|--|--|
| OFFICE  | ORB#2     | ORB#2        | ORB#2       | AD-OR    | OELD    |  |  |
| SURNAME | S. Norris | J. Van Vliet | T. Ippolito | T. Novak | K. RYAN |  |  |
| DATE    | 7/6/81    | 7/6/81       | 7/6/81      | 7/17/81  | 7/9/81  |  |  |

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

John J. Burney, Jr., Esquire  
Burney, Burney, Sperry & Barefoot  
110 North Fifth Avenue  
Wilmington, North Carolina 28461

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

Denny McGuire (Ms)  
State Clearinghouse  
Division of Policy Development  
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  
ATTN: EIS COORDINATOR  
345 Courtland Street, N. W.  
Atlanta, Georgia 30308

Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 1057  
Southport, North Carolina 28461

Mr. Charles R. Dietz  
Plant Manager  
P. O. Box 458  
Southport, North Carolina 28461



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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 61  
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 June 29, 1981 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. 61, 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 June 29, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "T. Ippolito for".

Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 14, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 61

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Remove page 3/4 6-29 and replace with identically numbered page.

CONTAINMENT SYSTEMS

OXYGEN CONCENTRATION

LIMITING CONDITION FOR OPERATION

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3.6.6.3\* The primary containment atmosphere oxygen concentration shall be less than 4% by volume during the period from:

- a. Within 24 hours after THERMAL POWER > 15% of RATED THERMAL POWER, to
- b. Within 24 hours prior to a scheduled reduction of THERMAL POWER to < 15% of RATED THERMAL POWER.

APPLICABILITY: CONDITION 1.

ACTION:

With the oxygen concentration in the primary containment exceeding the limit, be in at least STARTUP within 8 hours.

SURVEILLANCE REQUIREMENTS

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4.6.6.3 The oxygen concentration in the primary containment shall be verified to be within the limit within 24 hours after THERMAL POWER > 15% of RATED THERMAL POWER and at least once per 7 days thereafter.

\*For the period commencing at 0630 on June 29, 1981, a temporary exemption is allowed to operate BSEP-2 in Condition 1 with containment oxygen concentration exceeding 4% by volume for 72 hours.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 61 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2

DOCKET NO. 50-324

I. INTRODUCTION

By telecopied letter dated June 29, 1981, Carolina Power & Light Company (the licensee) proposed a seventy-two hour temporary exemption from (the licensee) proposed a seventy-two hour temporary exemption Brunswick Steam Electric Plant (BSEP) Unit No. 2. The proposed change would permit the facility to be operated deinerted until repairs can be made made to the pipeline that supplies vaporized nitrogen used to inert containment.

II. EVALUATION

The staff reviewed the following points made by the licensee:

1. The probability of occurrence of a LOCA during the 3 day exemption period is extremely remote. Present Technical Specifications allow de-inerting for a total of two days during and after a shutdown, and the time period requested by this change will present no significant additional safety hazard.
2. CP&L is operating the Brunswick containment purging system in accordance with NRC's October 22, 1979 "Interim Position on Containment Purging and Venting." The purge isolation valves are capable of closing against the dynamic forces of a LOCA.
3. Regulatory Guide 1.7 Revision 2 discusses production of combustible gases resulting from a LOCA and states that hydrogen concentrations would reach flammable limits within a day to a month after a LOCA. The Brunswick Plant has a fully qualified (seismic, safety-related) Containment Atmospheric Dilution (CAD) System which is designed to maintain containment inerted following a LOCA. The CAD System can be operated to inject nitrogen into containment combustible gases after a LOCA. CP&L commits to utilize this system as a combustible gas control measure if a LOCA were to occur during the period Brunswick 2 operates deinerted. In addition, the containment oxygen concentration had been reduced to 10% by volume immediately prior to the pipeline failure. Such a reduced oxygen concentration would probably tend to raise the hydrogen flammability limits. The licensee is using the CAD system to maintain this reduced oxygen concentration.

4. The latest edition of Standard Technical Specifications (STS) for BWR-4 plants allows deinerted operation for 120 Effective Full Power days during the Startup Test Program. This is a significantly longer time period than the 3 calendar days being requested for Brunswick 2.

In addition to the above considerations, the licensee agreed to alert the fire brigade to the degraded fire protection condition in the containment. Based on the above evaluation, we conclude that the temporary exemption is acceptable.

### III. 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, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

### IV. 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 accidents previously considered and does not involve a significant decrease in a safety margin, 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 14, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-324CAROLINA POWER & LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 61 to Facility Operating License No. DPR-62 issued to Carolina Power & Light Company (the licensee) which revised the Technical Specifications for operation of the Brunswick Steam Electric Plant, Unit No. 2 (the facility), located in Brunswick County, North Carolina. The amendment is effective June 29, 1981.

The amendment revises the Technical Specifications to permit a temporary exemption from the containment oxygen concentration limiting condition for operation requirements of 72 hours commencing 6:30 a.m. June 29, 1981.

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 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 Section 51.5(d)(4), an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

For further details with respect to this action, see (1) the application for amendment dated June 29, 1981, (2) Amendment No. 61 to License No. 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 14th day of July 1981:

FOR THE NUCLEAR REGULATORY COMMISSION



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