

OCT 1 1976

DISTRIBUTION  
Docket File  
NRC PDR  
LOCAL PDR  
ORB#1 Reding  
KRGoller/TJCarter  
SMSheppard  
CMTRammell  
Attorney, OELD  
OI& E (2)  
BJones  
BScharf (2)  
ACRS (16)  
CMiles, OPA  
TBABernathy  
JRBuchanan

Docket No. 50-324

Carolina Power & Light Company  
ATTN: Mr. J. A. Jones, Executive  
Vice President  
Engineering, Construction  
and Operations  
336 Fayetteville Street  
Raleigh, North Carolina 27602

Gentlemen:

The Commission has filed the enclosed "Notice of Proposed Issuance of Amendment to Facility Operating License" with the Office of the Federal Register for publication. This notice relates to your request dated September 3, 1976, for the Brunswick Steam Electric Plant, Unit No. 2, which would permit continuous reactor operation with one recirculation loop out of service, and establish operating limits associated with this mode of operation.

Sincerely,

Original signed by

A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosure:  
Federal Register Notice

cc w/encl:  
See next page

DOR:ORB#1 CMTRammell:1b 9/22/76	OELD Mitchell 9/29/76	DOR:ORB#1 ASchwencer 10/1/76			
---------------------------------------	-----------------------------	------------------------------------	--	--	--

CP 1

October 1, 1976

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

George F. Trowbridge, Esquire  
Shaw, Pittman, Potts & Trowbridge  
910 17th Street, N. W.  
Washington, D. C. 20006

John J. Burney, Jr., Esquire  
Burney, Burney, Sperry & Barefoot  
110 North Fifth Avenue  
Wilmington, North Carolina 28401

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

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-324

CAROLINA POWER & LIGHT COMPANY

NOTICE OF PROPOSED ISSUANCE OF AMENDMENT  
TO FACILITY OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-62, issued to Carolina Power & Light Company (the licensee), for operation of the Brunswick Steam Electric Plant, Unit No. 2 located in Brunswick County, North Carolina.

The amendment would permit continuous reactor operation with one recirculation loop out of service, and establish operating limits associated with this mode of operation. The amendment is proposed by the licensee's application for amendment dated September 3, 1976.

Prior to issuance of the proposed license amendment, the Commission will have made the findings required by the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations.

By November 15, 1976, the licensee may file a request for a hearing and any person whose interest may be affected by this proceeding may file a request for a hearing in the form of a petition for leave to intervene with respect to the issuance of the amendment to the subject facility operating license. Petitions for leave to intervene must be

filed under oath or affirmation in accordance with the provisions of Section 2.714 of 10 CFR Part 2 of the Commission's regulations. A petition for leave to intervene must set forth the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, and the petitioner's contentions with respect to the proposed licensing action. Such petitions must be filed in accordance with the provisions of this FEDERAL REGISTER notice and Section 2.714, and must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Section, by the above date. A copy of the petition and/or request for a hearing should be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to Richard E. Jones, Esquire, Carolina Power & Light Company, 336 Fayetteville Street, Raleigh, North Carolina 27602, attorney for the licensee.

A petition for leave to intervene must be accompanied by a supporting affidavit which identifies the specific aspect or aspects of the proceeding as to which intervention is desired and specifies with particularity the facts on which the petitioner relies as to both his interest and his contentions with regard to each aspect on which intervention is requested. Petitions stating contentions relating only to matters outside the Commission's jurisdiction will be denied.

All petitions will be acted upon by the Commission or licensing board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel. Timely petitions will be considered to determine whether a hearing should be noticed or another appropriate order issued regarding the disposition of the petitions.

In the event that a hearing is held and a person is permitted to intervene, he becomes a party to the proceeding and has a right to participate fully in the conduct of the hearing. For example, he may present evidence and examine and cross-examine witnesses.

For further details with respect to this action, see the application for amendment dated September 3, 1976, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. and at the Southport - Brunswick County Library, 109 West Moore Street, Southport, North Carolina 28461.

Dated at Bethesda, Maryland, this 1st day of October 1976.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

PRELIMINARY DETERMINATION  
NOTICING OF PROPOSED LICENSING AMENDMENT

LICENSEE: Carolina Power & Light Company (CP&L)  
 REQUEST FOR: Single-loop operation  
 FACILITY: Brunswick Steam Electric Plant, Unit No. 2 (BSEP-2)

REQUEST DATE: September 3, 1976

PROPOSED ACTION: (XX) Pre-notice Recommended  
 ( ) Post-notice Recommended  
 ( ) Determination delayed pending  
 completion of Safety Evaluation

BASIS FOR DECISION: At present, the Brunswick operating license contains a restriction on single loop operation because no analysis in this configuration was provided when the original 50.46 ECCS analysis was conducted. Their submittal of September 3, 1976, furnishes this analysis.

It is clear that operation on a single loop is an unreviewed safety question. If only one recirculation pump is operating, and the break occurs in the operating loop, coastdown flow relies only on natural circulation, and flow decreases more rapidly than in the 2-pump case. The result is a more rapid departure from nucleate boiling and a more severe cladding heat-up.

Operation on a single loop results in back flow through the non-operating jet pumps, and adjustments (reduction) in the APRM and RBM settings are required. Further, operation on a single loop at minimum flow is less stable than at minimum flow with 2 loops and only manual flow control should be used.

Postulated transients are less severe for single loop operation, but the other factors mentioned above are sufficient to classify this action as a significant hazards consideration. Pre-notice is recommended.

- Proposed NEPA Action:
- ( ) EIS Required
  - ( ) Negative Declaration (ND) and Environmental Impact Appraisal (EIA) Required
  - (XX) No EIS, ND or EIA Required
  - ( ) Determination delayed pending completion of EIA

**BASIS FOR DECISION:** There will be no change in effluent types or amounts, no change in authorized power level. Therefore, there will be no significant environmental impact attributable to the proposed action beyond that previously reviewed and found acceptable.

CONCURRENCES:

- |  | DATE:   |
|--|---------|
| 1. <i>C. M. Trammell</i><br>C. M. Trammell | 9/24/76 |
| 2. <i>A. Schwencer</i><br>A. Schwencer     | 9/24/76 |
| 3. <i>K. R. Goller</i><br>K. R. Goller     | 9/27/76 |
| 4. <i>OELD Hrossman</i><br>OELD Hrossman   | 9/30/76 |