

## REACTIVITY CONTROL SYSTEMS

### 3/4.1.2 REACTIVITY ANOMALIES

#### LIMITING CONDITION FOR OPERATION

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3.1.2 The reactivity difference between the actual ROD DENSITY and the predicted ROD DENSITY shall not exceed 1%  $\Delta k/k$ .

APPLICABILITY: CONDITIONS 1 and 2.

#### ACTION:

With the reactivity different by more than 1%  $\Delta k/k$ :

- a. Perform an analysis to determine and explain the cause of the reactivity difference; operation may continue if the difference is explained and corrected, or
- b. Be in HOT SHUTDOWN within 12 hours. Submit a Special Test Program to the Commission describing the methods to be used to determine the cause and magnitude of the reactivity difference.

#### SURVEILLANCE REQUIREMENTS

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4.1.2 The ROD DENSITY shall be predicted and compared to the actual ROD DENSITY for selected operating conditions:

- a. Upon the initial attainment of an equilibrium power level of at least 90% of RATED THERMAL POWER following CORE ALTERATIONS, and
- b. At least once per effective full power month during POWER OPERATION.

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Carolina Power & Light Company  
December 29, 1982

Office of Nuclear Reactor Regulation  
ATTN: Mr. D. B. Vassallo, Chief  
Operating Reactors Branch No. 2  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324  
LICENSE NOS. DPR-71 AND DPR-62  
REQUEST FOR LICENSE AMENDMENT  
REACTIVITY ANOMALIES

Dear Mr. Vassallo:

SUMMARY

In accordance with the Code of Federal Regulations, Title 10, Part 50.90 and Part 2.101, Carolina Power & Light Company (CP&L) hereby requests revisions to the Technical Specifications (TS) for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. The purpose of these revisions is to clarify exactly when the reactivity anomaly surveillance is to be performed.

DISCUSSION

Technical Specification 4.1.2.a states that the core reactivity is to be checked "During the first startup following CORE ALTERATIONS". The intent of this surveillance requirement is to insure that the anomaly check is done before the new core accumulates an entire effective full power month of exposure. In the past, "During the first startup" has been interpreted as the entire time between initial rod pulls and the attainment of an equilibrium one hundred (100) percent power level.

Since the anomaly check cannot be performed with a satisfactory degree of validity until a high, steady-state power level is achieved, the surveillance requirement should be changed to reflect this criterion. The statement "During the first startup" is not sufficiently specific to indicate exactly when the check should be performed. Revision of TS 4.1.2.a, as attached, will eliminate any confusion arising from the surveillance requirements as currently written.

Enclosed are revised TS pages for Unit Nos. 1 and 2. These changes will not require the initial reactivity anomaly check to be performed until an equilibrium power of at least 90 percent is achieved. Waiting until this power level to perform the anomaly check will not have a detrimental effect on plant safety since other tests performed at the initial criticality of a new cycle, specifically the shutdown margin test, indirectly test for reactivity anomalies. The results of the shutdown margin tests are used to verify that

DUPE

December 29, 1982

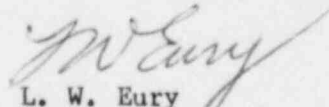
the actual core reactivity agrees with that expected. This will provide an early indication of any core reactivity concerns prior to reaching the power level where actual reactivity anomaly testing is performed.

ADMINISTRATIVE INFORMATION

You will find enclosed the revised TS pages with the changes indicated by vertical lines in the right-hand margins. We have evaluated this request in accordance with the criteria in 10CFR170.22 and have determined that this request involves an administrative issue; therefore, a single Class I and Class II license amendment fee is required for Units 1 and 2. Our check for one thousand six hundred dollars (\$1,600.00) is enclosed in payment of this fee.

Should you have any questions concerning this matter, please contact us.

Yours very truly,



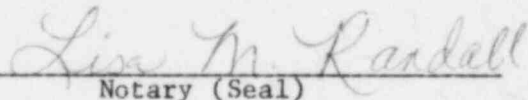
L. W. Eury  
Senior Vice President  
Power Supply

AWS/kjr (5813C2T4)

Attachment

cc: Mr. D. O. Myers (NRC-BSEP)  
Mr. J. P. O'Reilly (NRC-R11)  
Mr. J. A. Van Vliet (NRC)

L. W. Eury, having been first duly sworn, did depose and say that the information contained herein is true and correct to his own personal knowledge or based upon information and belief.



Notary (Seal)

My commission expires:

My Commission Expires May 18, 1983

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