



Carolina Power & Light Company

P. O. Box 1551 • Raleigh, N. C. 27602

APR 5 1988

LYNN W. EURY
Senior Vice President
Operations Support

SERIAL: NLS-88-062
10CFR50.90
87TSB03

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT
ELIMINATION OF CYCLE SPECIFIC VARIABLES

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light Company (CP&L) hereby requests a revision to the Technical Specifications (TS) for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed revision would remove the specific safety limit Minimum Critical Power Ratio (MCPR) value from TS Bases Section 2.2.1.1, TS Section 3.1.4.3 and TS Section 3.3.4, and would revise the footnote to TS Table 3.3.4-2. This request is provided as a supplement to the original Elimination of Cycle Specific Variables Amendment Package which was submitted on September 4, 1987.

Enclosure 1 provides a detailed description of the additional proposed changes and the basis for the changes.

Enclosure 2 details the basis for the Company's determination that the additional proposed changes do not involve a significant hazards consideration.

Enclosure 3 provides instructions for incorporation of the proposed changes into the Technical Specifications for each unit.

Enclosure 4 provides a summary of the proposed Technical Specification changes for each unit on a page by page basis.

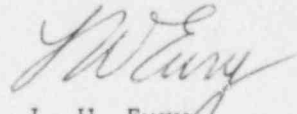
Enclosure 5 provides the additional proposed Technical Specification pages for each unit.

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Please refer any questions regarding this submittal to Mr. Leonard I. Loflin at (919) 836-6242.

Yours very truly,


L. W. Eury

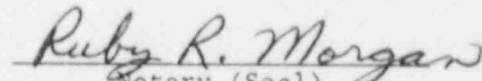
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Enclosures:

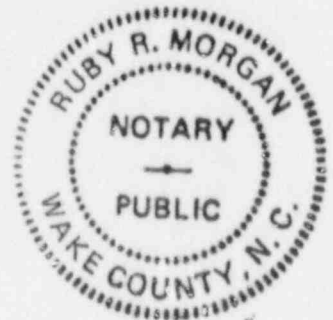
1. Basis for Change Request
2. 10CFR50.92 Evaluation
3. Instructions for Incorporation
4. Summary List of Revisions
5. Technical Specification Pages

cc: Mr. Dayne H. Brown
Dr. J. Nelson Grace
Mr. W. H. Ruland
Mr. E. D. Sylvester

L. W. Eury, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.


Notary (Seal)

My commission expires: 11/27/89



ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKETS 50-325 & 50-324
OPERATING LICENSES DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

BASIS FOR CHANGE REQUEST

Proposed Change 1

Presently TS Bases Section 2.2.1.1, TS Section 3.1.4.3, and TS Section 3.3.4 contain the specific value of the safety limit MCPR. The proposed change to these safety limit values was inadvertently omitted from the original Elimination of Cycle Specific Variables Amendment Package. The proposed change would remove these specific safety limit MCPR values from the TS and place them in the cycle specific SUPPLEMENTAL RELOAD LICENSING REPORT.

Proposed Change 2

Presently TS Table 3.3.4-2 contains a footnote which lists the specific values of "T" (ratio of fuel bundle type specific design Total Peaking Factor divided by the Maximum Total Peaking Factor). The proposed change would remove these specific values and would replace them with a reference to the SUPPLEMENTAL RELOAD LICENSING REPORT, Appendix A, which defines "T".

Basis

Currently, the Brunswick Plant Technical Specifications include cycle specific operating limits and values based on specific fuel bundle characteristics of reload cores. License amendments are required each refueling to reflect revised limits and values as a result of the new cycle specific characteristics. These license amendments result in a significant impact on the Company, as well as the NRC's resources. An amendment package was submitted on September 4, 1987 which would eliminate these cycle specific variables from the Technical Specifications. The proposed changes specified in this package supplement the changes specified in the Company's original submittal. NPC approved analytical methodology will continue to be used as the basis for derivation of cycle specific values and limits. These values and limits are described in the Supplemental Reload and Licensing Report (SRLR) which is specific to each operating cycle. The SRLR for future operating cycles will be submitted to the NRC prior to startup from each refueling outage.

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKETS 50-325 & 50-324
OPERATING LICENSES DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

10CFR50.92 EVALUATION

The Commission has provided standards in 10CFR50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. Carolina Power & Light Company has reviewed this proposed license amendment request and determined that its adoption would not involve a significant hazards consideration. The bases for this determination are as follows:

Basis

As stated in the original elimination of cycle specific variables license amendment package, the BSEP Technical Specifications include cycle specific and fuel bundle type specific power distribution operating limits. Changes to these operating limits are typically required each refueling to reflect the new cycle specific characteristics. These frequent license amendments represent a significant periodic impact on the Company, as well as the NRC's resources.

The proposed amendment, contained in this supplement, removes specific values for the safety limit MCPR and values for the ratio of the design Total Peaking Factor to Maximum Total Peaking Factor ("T" value) consistent with the original request for license amendment package previously discussed. These two changes were inadvertently omitted from the original package. The safety limit MCPR value and the ratio defined as "T" will continue to be contained in the Supplemental Reload Licensing Report (SRLR) which is submitted to the NRC prior to startup from each refueling outage. NRC approved analytical methodology will continue to be used as the basis for establishing these values and ratios.

The ratio "T" was recently revised in Amendment 19 to NEDE-24011-P-A (GESTAR II). Amendment 19 defines "T" as the ratio of Fraction of Rated Thermal Power to Core Maximum Average Planar Linear Heat Generation Rate Ratio rather than the ratio of fuel bundle type specific design Total Peaking Factor divided by the Maximum Total Peaking Factor. This revised ratio is utilized in the SRLR rather than the previous ratio "T". In the Safety Evaluation Report (SER) accepting Amendment 19, which was issued by the NRC on November 17, 1987, the revised ratio "T" was discussed at length. This

SER concluded that the revised ratio was acceptable since it resulted in either the same or more conservative setpoint values. The Average Power Range Monitor Scram Setpoints and the Rod Block Trip Setpoints will continue to be determined using established ratios of "T" which have received NRC approval.

Proposed Change 1

The proposed amendment removes the specific safety limit MCPR value specified TS Bases Section 2.2.1.1, TS Section 3.1.4.3, and TS Section 3.3.4 for BSEP-1 and 2.

The change does not involve a significant hazards consideration for the following reasons:

1. The proposed amendment will not affect the operational transients analyzed in the Updated Final Safety Analysis Report. There will be no change in the operation of the facility as a result of this amendment. NRC approved analytical methodology will continue to be used as the basis for the results reported in the SRLR. Based on this reasoning, CP&L has determined that the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.
2. No safety related equipment, safety function, or plant operation will be altered as a result of this amendment. The proposed amendment does not create any new accident mode and, therefore, does not create the possibility of a new or different kind of accident from any accident previously evaluated.
3. The safety limit MCPR is established using NRC accepted methodology to assure a specific level of fuel cladding protection during even the most severe operational transients. NRC approved methodology will continue to be used in establishing future safety limit MCPR values, and these values will be contained in the SRLR for future cycles. Based on this reasoning, CP&L has determined that the proposed amendment does not involve a significant reduction in the margin of safety.

Proposed Change 2

The proposed amendment revises the footnote to TS Table 3.3.4-2. Specific values for the ratio "T", contained in the footnote, will be removed and will be replaced with a reference to the SUPPLEMENTAL RELOAD LICENSING REPORT, Appendix A, which defines "T".

The change does not involve a significant hazards consideration for the following reasons:

1. The operational transients analyzed in the Updated Final Safety Analysis Report will not be affected by the proposed amendment. The established expression for the ratio "T" will be located in the cycle specific SRLR for each unit rather than the Technical Specifications, and will continue to be determined through the use of NRC approved analytical methodology. Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.
2. No safety related equipment, safety function, or plant operation will be altered as a result of this amendment. The proposed amendment does not create any new accident mode. The ratio "T" will continue to be used for establishing the Average Power Range Monitor Scram Setpoint and the Rod Block Trip Setpoint. Furthermore, this ratio will continue to be established using NRC approved analytical methodology. Based on this reasoning, CP&L has determined that the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.
3. Cycle specific SRLRs define the ratio "T", and are submitted to the NRC prior to startup from each refueling outage. This ratio will continue to be derived utilizing NRC approved analytical methodology. The ratio "T", and the setpoints derived using "T", will continue to provide adequate bounds on the operational transients analyzed in the Updated Final Safety Analysis Report. The recently revised ratio "T", as described in the NRC's November 17, 1987 SER, results in either the same or more conservative setpoint determinations. Since the revised ratio "T" provides comparable, or additional conservatism, and the SRLR will continue to specify the NRC approved ratio "T", CP&L has determined that the proposed change does not involve a significant reduction in the margin of safety.

ENCLOSURE 3

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKETS 50-325 & 50-324
OPERATING LICENSES DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

INSTRUCTIONS FOR INCORPORATION

The proposed changes to the Technical Specifications (Appendix A to Operating Licenses DPR-71 and DPR-62) would be incorporated as follows:

UNIT 1

Remove Page

B 2-4
3/4 1-17
3/4 3-39
3/4 3-42

Insert Page

B 2-4
3/4 1-17
3/4 3-39
3/4 3-42

UNIT 2

Remove Page

B 2-4
3/4 1-17
3/4 3-39
3/4 3-42

Insert Page

B 2-4
3/4 1-17
3/4 3-39
3/4 3-42

ENCLOSURE 4

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKETS 50-325 & 50-324
OPERATING LICENSES DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

SUMMARY LIST OF REVISIONS

UNIT 1

<u>Pages</u>	<u>Description of Changes</u>
B 2-4	Removes the specific value for the safety limit MCPR
3/4 1-17	Removes the specific value for the safety limit MCPR
3/4 3-39	Removes the specific value for the safety limit MCPR
3/4 3-42	Revises the footnote to Table 3.3.4-2

UNIT 2

<u>Pages</u>	<u>Description of Changes</u>
B 2-4	Removes the specific value for the safety limit MCPR
3/4 1-17	Removes the specific value for the safety limit MCPR
3/4 3-39	Removes the specific value for the safety limit MCPR
3/4 3-42	Revises the footnote to Table 3.3.4-2

ENCLOSURE 5

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKETS 50-325 & 50-324
OPERATING LICENSES DPR-71 & DPR-62
SUPPLEMENT TO REQUEST FOR LICENSE AMENDMENT

TECHNICAL SPECIFICATION PAGES