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June 19, 1997

Chief, Rules Review and Directives Branch,  
U.S. Nuclear Regulatory Commission  
Mail Stop T-6D-69  
Washington, DC 20555-0001

Subject: **Comments on NRC Proposed Bulletin 96-01 Supplement 1, Control Rod  
Insertion Problems (62 FR 27629)**

Dear Sir or Madam:

Attached please find Carolina Power & Light Company's (CP&L) comments on the NRC Proposed Bulletin 96-01 Supplement 1 on Control Rod Insertion Problems. This proposed supplement was published in the May 20, 1997 Federal Register (i.e., 62 FR 27629).

If you have questions regarding these comments, please contact me at (919) 546-6901.

Sincerely,

*P.A. Opal for D.B. Alexander*

D.B. Alexander, Manager  
Performance Evaluation & Regulatory Affairs

HAS  
Attachment

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PDR I&E  
MISC PDR



IDS-11A

**Comments on NRC Proposed Bulletin 96-01 Supplement 1, Control Rod Insertion Problems**

cc: Mr. L.J. Callan, Executive Director for Operations  
Mr. S.J. Collins, Director, USNRC Office of Nuclear Reactor Regulation  
Mr. L.A. Reyes, Regional Administrator, Region II  
Mr. J.B. Brady, USNRC Resident Inspector - HNP, Unit 1  
Mr. B.B. Desai, USNRC Resident Inspector - HBRSEP, Unit 2  
Chairman J.A. Sanford - North Carolina Utilities Commission  
Mr. V.L. Rooney, USNRC Project Manager - HNP, Unit 1  
Ms. B.L. Mozafari, USNRC Project Manager - HBRSEP, Unit 2

**Comments on NRC Proposed Bulletin 96-01 Supplement 1, Control Rod Insertion Problems**

1. In the "Regulatory Requirements and Guidance" and the "Requested Actions" sections of the proposed Bulletin 96-01 Supplement 1, rod insertion ability is to be demonstrated either by testing or by a rigorous engineering analysis. Siemens Power Corporation (SPC) has submitted a topical report describing how specific fuel assembly designs are evaluated to demonstrate that sufficient guide tube strength and buckling resistance are available to preclude control rod insertion problems. CP&L requests that the NRC review this topical report, and any similar reports from other fuel vendors, before issuing the Bulletin 96-01 Supplement 1. Review and approval of this topical report may prevent multiple plant shutdowns, to perform the testing alternative, avoiding the associated impact on plant operations and economics.

If the topical report can not be approved by the NRC, some further clarifications may be necessary on acceptable engineering analysis methods. CP&L suggests findings from the review of any such topical report be included in the description of what constitutes a rigorous engineering analysis as specified in Bulletin 96-01 Supplement 1.

2. The following regulatory guidance in General Design Criterion (GDC) 26 of 10CFR50 Appendix A was cited in the "Regulatory Requirements and Guidance" section of the proposed Bulletin 96-01 Supplement 1:

"One of the systems shall use control rods, preferably including a positive means for inserting the rods, and shall be capable of reliably controlling reactivity changes to assure that under conditions of normal operation, including anticipated operational occurrences, and with appropriate margin for malfunctions such as stuck rods, specified acceptable fuel design limits are not exceeded."

CP&L suggests that the proposed Bulletin 96-01 Supplement 1 be revised to permit an analysis of Shutdown Margin to be used as a fully acceptable substitute for a rigorous engineering analysis, as specified in Bulletin 96-01 Supplement 1. For some core designs, GDC 26 and the Technical Specification requirements for Shutdown Margin may be met without the reactivity control associated with control rods in susceptible fuel assemblies. For other core designs that do require the reactivity control associated with control rods in susceptible fuel assemblies, this analysis of Shutdown Margin should include an increased allowance for any control rod that is both necessary for Shutdown Margin and susceptible to this problem.