



Carolina Power & Light Company

SERIAL: NLS-84-219

JUN 26 1984

Director of Nuclear Reactor Regulation
Attention: Mr. D. B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
REQUEST FOR LICENSE AMENDMENT
HYBRID DESIGN HAFNIUM CONTROL ROD ASSEMBLIES

Dear Mr. Vassallo:

SUMMARY

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), Unit Nos. 1 and 2. The proposed change revises Section 5.3.2 to reflect the use of hybrid design hafnium control rod assemblies. These assemblies will be used to replace standard control rod assemblies during the current Unit 2 refueling outage and will be used as replacements during upcoming Unit 1 refuelings.

DISCUSSION

The changes made to Section 5.3.2 of the Brunswick-1 and Brunswick-2 TS reflect the use of hybrid design hafnium control rod assemblies to replace existing control rod assemblies. The Hybrid I Control Rod Assembly has been designed by General Electric to be used as direct replacement for the present control rod assemblies. The original control rods contained only boron carbide, B₄C, as the absorbing material. The new assembly design uses B₄C absorber tubes and three solid hafnium rods in the outside edge of each wing. This new design will lengthen control rod lifetime. For additional details as to the assembly design see GE document NEDO-22290-A (Attachment 3).

SIGNIFICANT HAZARDS ANALYSIS

Carolina Power & Light Company has reviewed this request and determined that the nuclear and mechanical properties of the Hybrid I Control Rod Assembly do not differ from the present design used at Brunswick in any way which would cause an increase to the probability or consequence of a previously analyzed accident. Nor will the change lead to a reduction of any safety margin. The proposed amendment involves no significant relaxation of the criteria used to establish safety limits, no significant relaxation of the bases for limiting safety system settings, and no significant relaxation in limiting conditions for operation. Therefore, CP&L believes the proposed amendment does not involve a significant hazards consideration.

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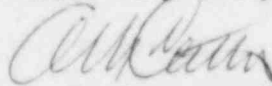
ADMINISTRATIVE INFORMATION

The proposed Brunswick-1 and Brunswick-2 TS pages are included in Attachment 1 and Attachment 2. A complete summary of the changes made to each proposed TS page is included to assist in reviewing this amendment. Your staff is currently processing an amendment request involving the same TS page (5-4) for Brunswick-1. The submittal was made February 29, 1984 to revise the maximum average enrichment of the fuel. This pending change has not been incorporated into the current request.

Carolina Power & Light Company has evaluated this request in accordance with the provision of 10 CFR 170.12 and has determined that a license amendment application fee is required. A check for \$150.00 is enclosed in payment of this fee.

Since the hybrid design control rod assemblies are being used to replace existing control rod assemblies during the current Unit 2 refueling outage, issuance of this amendment is required prior to Unit 2 startup by September 25, 1984. Should you have any questions concerning this submittal, please contact Mr. Sherwood R. Zimmerman at (919) 836-6242.

Yours very truly,



A. B. Cutter - Vice President
Nuclear Engineering & Licensing

MAT/cfr (070MAT)

Attachments

cc: Mr. Dayne H. Brown
Radiation Protection Branch
Division of Facility Services
Department of Human Resources

Mr. D. O. Myers (NRC-BSEP)
Mr. J. P. O'Reilly (NRC-RII)
Mr. M. Grotenhuis (NRC)

A. B. Cutter, 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: OCT 04 1986

