



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

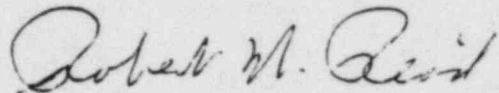
Amendment No. 25  
License No. DPR-23

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee) dated November 17, 1976, as supplemented December 2, 1976, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment.

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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Robert W. Reid".

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 3, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 25

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Revise Appendix A Technical Specifications as follows:

Remove Page

Insert Page

3.10-2

3.10-2

The changed area on the revised page is shown by a marginal line.

3.10.2

Power Distribution Limits

3.10.2.1

At all times except during low power physics tests, the hot channel factors defined in the basis must meet the following limits:

$$F_Q(Z) \leq (2.20/P) \times K(Z) \text{ for } P > .5$$

$$F_Q(Z) < (4.40) \times K(Z) \text{ for } P \leq .5$$

$$F_{\Delta H}^N < 1.55 (1 + 0.2(1-P))$$

where P is the fraction of licensed power at which the core is operating, K(Z) is the function given in Figure 3.10-3, and Z is the core height location of  $F_Q$ .

3.10.2.1.1

If the value of  $F_{xy}$  for the unrodded plane of the core exceeds 1.435 as determined from power distribution maps using the movable detector system, the Axial Power Distribution Monitoring System (APDMS) will be employed to monitor  $F_Q(Z)$  above a predetermined power level,  $P_{APDMS}$ . The limiting value is expressed as:

$$[F_j(Z)S(Z)]_{\max} \leq \frac{2.085/P}{\bar{R}_j(1+\sigma_j)}$$

where:

- a. P is the fraction of rated power at which the core is operating ( $P \leq 1.0$ )
- b.  $\bar{R}_j$ , for chimney j, is determined from core power maps and is by definition:

$$\bar{R}_j = 1/6 \sum_{i=1}^6 \frac{F_{qi}^N}{[F(Z)_{ij}S(Z)]_{\max}}$$

$F_{qi}^N$  is the value obtained from a full core map without the measurement uncertainty factor  $F_u^N$ . The quantity  $F(Z)_{ij}S(Z)$  is the measured value without inclusion of the instrument uncertainty factor  $F_q^a$ . Those uncertainty factors,  $F_u^N = 1.05$  and  $F_q^a = 1.02$ , have been included in the limiting value of  $2.085/P$ .