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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 71 License No. DPR-71

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the Ticensee) dated January 31, 1984, as supplemented February 29, 1984, 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 1;
 - E. 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.
- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DFR-71 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 71, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief Operating Reactors Branch #2 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: June 5, 1984

ATTACHMENT TO LICENSE APENDMENT NO. 71 FACILITY OPERATING LICENSE NO. DPR-71

COCKET NO. 50-325

Revise the Appendix A Technical Specifications by removing pages 5-1 and 5-4 and inserting revised pages 5-1 and 5-4. The changed areas are indicated by vertical lines.

5.0 DESIGN FEATURES

5.1 SITE

EXCLUSION AREA

5.1.1 The exclusion area shall be as shown in Figure 5.1.1-1.

LOW POPULATION ZONE

5.1.2 The low population zone shall be as shown in Figure 5.1.2-1, based on the information given in Section 2.2 of the FSAR.

5.2 CONTAINMENT

CONFIGURATION

5.2.1 The PRIMARY CONTAINMENT is a steel-lined reinforced concrete structure composed of a series of vertical right cylinders and truncated cones which form a drywell. This drywell is attached to a suppression chamber through a series of vents. The suppression chamber is a concrete steel-lined pressure vessel in the shape of a torus. The primary containment has a minimum free air volume of (288,000) cubic feet.

DESIGN TEMPERATURE AND PRESSURE

5.2.2 The primary containment is designed and shall be maintained for:

- Maximum internal pressure 62 psig.
- b. Maximum internal temperature: drywell 300°F.

suppression chamber 200°F.

c. Maximum external pressure 2 psig.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 560 fuel assemblies, with each 8×8 fuel assembly containing 63 fuel rods and each $8 \times 8R$ fuel assembly containing 62 fuel rods. All fuel rods shall be cladded with Zircaloy 2. Each fuel rod shall have a nominal active fuel length of 146 inches for 8×8 fuel and 150 inches for $8 \times 8R$ fuel.

DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES (Continued)

The initial loading shall have a maximum average enrichment of 2.35 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum average enrichment of 2.99 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 137 control rod assemblies, each consisting of a cruciform array of stainless steel tubes containing 143 inches or boron carbide, B_4C , powder surrounded by a cruciform-shaped stainless steel sheath.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The nuclear boiler and reactor recirculation system is designed and shall be maintained:

- a. In accordance with the code requirements specified in Section 4.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements.
- b. For a pressure of 1250 psig, and
- c. For a temperature of 575°F.

VOLUME

5.4.2 The total water and steam volume of the reactor vessel and recirculation system is approximately 18,670 cubic feet.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be 'ocated as shown in Figure 5.1.1-1.

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