

March 12, 1993

Mr. R. A. Watson  
Senior Vice President  
Nuclear Generation  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Dear Mr. Watson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-23 REGARDING CALIBRATION REQUIREMENTS FOR AUXILIARY FEED FLOW INDICATION - H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2, (TAC NO. M85088)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 145 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2. This amendment consists of changes to the Technical Specifications (TS) in response to your request dated November 20, 1992.

The amendment changes the TS to add a requirement to calibrate auxiliary feedwater flow instrumentation at refueling outages and deletes the requirement for a separate functional test on a refueling outage interval.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commissions's bi-weekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Brenda Mozafari, Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 145 to DPR-23
  - 2. Safety Evaluation
- cc w/enclosures:  
See next page

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Date	03/4/93	03/4/93	03/12/93	03/9/93

Document Name: ROB85088.AMD

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Mr. R. A. Watson  
Carolina Power & Light Company

H. B. Robinson Steam Electric  
Plant, Unit No. 2

cc:

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AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. ROBINSON  
STEAM ELECTRIC PLANT, UNIT NO. 2

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cc: Robinson Service List



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. 145  
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 20, 1992, 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; and paragraph 3.B. of Facility Operating License No. DPR-23 is hereby amended to read as follows:

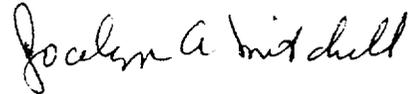
B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. , are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Jocelyn A. Mitchell, Acting Director  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 12, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 145

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages

4.1-8

Insert Pages

4.1-8

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibration</u>	<u>Test</u>	<u>Remarks</u>
32. Loss of Power				
a. 480 Emerg. Bus Undervoltage (Loss of Voltage)	N.A.	R	R	
b. 480 Emerg. Bus Undervoltage (Degraded Voltage)	N.A.	R	R	
33. Auxiliary Feedwater Flow**** Indication	M	R	N.A.	
34. Reactor Coolant System** Subcooling Monitor	M	R	N.A.	
35. PORV Position Indicator***	N.A.	N.A.	R	
36. PORV Blocking Valve*** Position Indicator	N.A.	N.A.	R	
37. Safety Relief Valve Position*** Indicator	N.A.	N.A.	R	
38. Noble Gas Effluent Monitors***** a. Main Steam Line	D	R	Q	

\*\* Instrument for Detection of Inadequate Core Cooling - NUREG 0578 Item 2.1.3.b.

\*\*\* Direct Indication of Power Operated Relief Valve and Safety Valve Position - NUREG 0578 Item 2.1.3.a.

\*\*\*\* Auxiliary Feedwater Flow Indication to Steam Generator - NUREG 0578 Item 2.1.7.b.

\*\*\*\*\* Noble Gas Effluent Monitors - NUREG-0737 Item II.F.1.1.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-23  
CAROLINA POWER & LIGHT COMPANY  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261

1.0 INTRODUCTION

In a letter dated November 20, 1992, Carolina Power & Light Company (CP&L), the licensee for the H. B. Robinson Steam Electric Plant, Unit No. 2, requested an amendment for a Technical Specification (TS) modification that adds a requirement for calibrating the auxiliary feedwater (AFW) flow instrumentation at each refueling outage and deletes the separate requirement for a functional test at each refueling outage. The new instrumentation, installed by a plant modification, to monitor AFW flow resulted in a change in the method of verifying operability of the instrumentation. The new instrumentation can be calibrated; whereas, the old instrumentation could only be functionally tested.

2.0 BACKGROUND

The function of the AFW flow indication instrumentation is to provide sufficient and accurate information to an operator to allow for the recognition and isolation of faulted piping supplying AFW flow to a steam generator to ensure continued cooling of the reactor coolant system. The old ultrasonic-type instrumentation was inaccurate because its flow sensor material was not compatible with the AFW maximum fluid temperature. This material would become deformed under maximum temperature to the extent that the acoustic signal would be distorted. To improve the accuracy and reliability of the AFW flow indication in the main control room, CP&L replaced the existing ultrasonic flow sensors with an annubar-type differential pressure flow-measuring sensor.

The new flow-sensing instrumentation can be calibrated; whereas, the old instrumentation could not. Since the old instrumentation could not be calibrated, its operability could only be verified by functional checks. Therefore, existing TS Table 4.1-1 requires a monthly channel check and a refueling interval functional check. Because the new instrumentation can be calibrated, the proposed TS modification requires a refueling interval calibration instead of a refueling interval functional check.

A functional check verifies only the operability of the instrument; whereas, periodic calibration ensures that the presentation and acquisition of plant information are accurate and reliable and that the instrumentation would continue to perform at its required level.

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### 3.0 EVALUATION

The proposed revision to Item 33 of TS Table 4.1-1, "Auxiliary Feedwater Flow Indication," incorporates two changes: (1) the addition of a requirement for a refueling interval calibration of the instrumentation, and (2) the deletion of the separate requirement for a refueling interval functional test. The addition of the calibration requirement increases accuracy and reliability and ensures that the flow instrumentation continues to perform at its required level. Removing the separate requirement for a refueling interval functional test eliminates duplicate testing because the channel calibration includes the channel functional test. TS Definition 1.6.2 defines Channel calibration as, "Adjustment of channel output such that it responds, with acceptable range and accuracy, to known value of the parameter which the channel measures. Calibration shall encompass the entire channel, including the alarm or trip, and shall be deemed to include the channel functional test." Therefore, the proposed changes would not eliminate any present requirements; on the contrary, they would improve the reliability and accuracy of flow indication provided by the instrumentation.

### 4.0 SUMMARY

Based on the above evaluation the staff finds that the proposed TS modification to add a requirement for a refueling interval calibration of the AFW flow instrumentation and to delete the separate requirement for a refueling interval functional test, is acceptable.

### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of South Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

### 6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (January 6, 1993, at 58 FR 592). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. V. Athavale

Date: March 12, 1993