April 9, 1987

Docket No. 50-261

Mr. E. E. Utley, Senior Executive Vice President Power Supply and Engineering & Construction Carolina Power & Light Company Post Office Box 1551 Raleigh, North Carolina 27602

Dear Mr. Utley:

DISTRIBUTION Docket File G. Requa NRC PDR D. Miller Local PDR ACRS (10) PAD#2 Rdg. Gray File T. Novak OGC-Bethesda E. Jordan B. Grimes J. Partlow

N. Thompson

Subject: Denial of Backfit Claim, NUREG-0737, Item II.D.1, H.B. Robinson, Unit No. 2

By letter dated February 11, 1987, we transmitted to you a Safety Evaluation requesting that Carolina Power & Light (CP&L) have plant procedures in place to inspect and refurbish, if necessary, Power Operating Relief Valves (PORVs) after a lift. By letter dated March 17, 1987, you stated that "making a commitment to a new plant procedure falls outside the scope of NUREG-0737, Item II.D.1," and that our request constitutes a backfit as defined in 10 CFR 50.109(a)(1). We have completed our review of your March 17, 1987, letter, and we have concluded that the requested action does not constitute a backfit.

CP&L received their construction permit on April 13, 1967, and their operating license on July 31, 1980. NUREG-0737 was issued in October of 1980. Item II.D.1 of this NUREG states, in part,

"Licensees and applicants shall conduct testing to qualify the reactor coolant system relief and safety valves under expected operating conditions for design-basis transients and accidents. . . The testing should demonstrate that the valves will open and reclose under the expected flow conditions."

The post-TMI implementation requirements approved by the Commission and incorporated in NUREG-0737 were addressed to "All Licensees of Operating Plants and Applicants for Operating Licenses and Holders of Construction Permits."

CP&L, through a PWR Owners Group and the Electric Power Research Institute (EPRI), participated in the development and execution of a test program to demonstrate operability of prototype safety and relief valves. Specifically, EPRI testing of Crosby safety valves was used to qualify the Robinson, Unit 2 valves. The test results showed repeatedly that the safety valve performed acceptably on the first actuation but on subsequent actuation the valve chattered and had to be manually opened to terminate the test. Galled surfaces and damaged internal parts were found during inspection and the damaged parts were refurbished or replaced before the next test started. The valve performed well on the initial test after each repair, but experienced closing chatter in the subsequent test. The EPRI results thus demonstrated that after a Crosby valve lift involving water discharge the valve would no longer meet the objective of NUREG-0737 during subsequent operations without corrective actions.

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Mr. E. E. Utley

Inspection of the Crosby safety valves after actuation involving the discharge of water was first used as a method to ensure continued valve operation during the review of Item II.D.1 on Kewaunee. In a letter dated March 23, 1984, the Kewaunee licensee proposed this procedure which was subsequently approved by the staff.

Requiring licensees and applicants to address the valve problem which occurred in the testing performed to meet NUREG-0737, Item II.D.1 is not a backfit since the requirement was to ensure valve operability "under expected operating conditions." This would include operation after the valve has lifted the first time. In addition, NUREG-0737, Item II.D.1 meets the timing criteria of 10 CFR 50.109 for not being a backfit.

The Safety Evaluation for Item II.D.1 transmitted to you on February 11, 1987, requested you to have a procedure for inspection and maintenance of the safety valves after actuation involving the discharge of water. In retrospect, the staff may have been too prescriptive in its request. The staff's intent was to offer a resolution acceptable to the staff, which was the Kewaunee resolution. CP&L may, as in the case of any staff request or requirement not specifically delineated in a rule, choose to propose alternate methods by which the operability requirements will be ensured.

Based on the above discussion, the staff finds that the Item II.D.1 requirements for ensuring valve operability under expected flow conditions, including operation after a lift, does not constitute a backfit.

You may appeal the staff's decision regarding the backfit determination. Should you decide to appeal, the appeal request should be addressed to the Director, NRR with a copy to the Executive Director for Operations (EDO). The appeal should take into account the staff's documented evaluation.

Sincerely,

Original signed by: Thomas M. Novak

Thomas M. Novak, Acting Director Division of PWR Licensing-A Office of Nuclear Reactor Regulation

cc: See next page



Mr. E.'E. Utley Carolina Power & Light Company

cc:

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