



Carolina Power & Light Company

SERIAL: NLS-84-215

MAY 17 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
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
NUREG-0737, ITEM II.K.3.16

Dear Mr. Vassallo:

In your letter dated March 12, 1984, Carolina Power & Light Company (CP&L) was requested to provide information concerning our submittal concerning NUREG-0737, Item II.K.3.16. Attached are CP&L's responses to the questions raised by your staff.

Should you have any questions concerning this matter, please contact Mr. Mark A. Turkal at (919) 836-8169.

Yours very truly,

S. K. Zimmerman
Manager

Nuclear Licensing Section

MAT/ccc (037MAT)
Attachment

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

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RESPONSES TO NRC QUESTIONS
CONCERNING NUREG-0737, ITEM II.K.3.16

- 1) Which, if any, of the staff recommended modifications have been implemented?

Response

The BWR Owners' Group made an evaluation of the potential benefit of various design changes for reducing the likelihood of a stuck open relief valve event. CP&L concurred with findings of the BWR Owners' Group that replacing three stage Target Rock Safety/Relief Valves with two stage valves and incorporation of the manual equivalent of the low-low set relief concept into new emergency instructions would achieve the goal of an order of magnitude reduction in probability of a stuck open relief valve event.

Plant Modification Nos. 80-085 and 80-086 were implemented on Brunswick Units 1 and 2, respectively, to change out three stage Target Rock Safety/Relief Valves with two stage top-work relief valves. The manual equivalent of the low-low relief concept is included in CP&L's Emergency Procedure EI-31.

- 2) Which, if any, of the staff recommended modifications do you propose to implement?

Response

CP&L's position on each of the staff recommended modifications is discussed below:

- a. Low-Low Set (LLS) Relief Logic System or Equivalent Manual Actions

As discussed above, the equivalent manual action has been implemented.

- b. Lower the reactor pressure vessel water level isolation setpoint for main steam isolation valve closure from Level 2 to Level 1.

This modification is being reviewed as a part of the ongoing Torus Integrity Program.

- c. Increase safety/relief valve simmer margin.

The setpoints on the three stage top-work valves were modified prior to replacement by the two stage top-work valves. The higher setpoints were maintained on the two stage safety relief valves after replacement. In the case of the two stage Target Rock safety/relief valves, pilot valve leakage does not lead to spurious opening. The BWROG study concluded that increasing simmer margins would not cause any significant reduction in safety relief valve challenges for the two stage Target Rock valves.

d. Preventive Maintenance Program

CP&L is working with the BWROG, GE, and Target Rock on problems associated with Target Rock safety/relief valves. Brunswick has established a policy of complying with vendor recommendations concerning the valves or providing justification when deviation is necessary. At the recommendation of GE and the BWROG, all safety relief valves on a unit are being removed and tested during that unit's refueling outage. When it is justified, the testing frequency of the safety relief valves will be restored to that established in ASME Section XI, Subsection IWV.

- 3) Have you implemented or proposed to implement any of the other modifications or actions discussed in NUREG-0737, Item II.K.3.16 or in the BWR Owners' Group report?

Response

CP&L considers the actions discussed above sufficient to resolve Item II.K.3.16. Accordingly, none of the other modifications or actions shall be implemented.