CP&L
Carolina Power & Light Company

JUN 25 1982

Office of Nuclear Reactor Regulation
ATTN: Mr. D. B. Vassallo, Chief
Operating Reactors Branch No. 2
United States Nuclear Regulatory Commission
Washington, D.C. 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
NUREG-0737, ITEM II.B.1
REACTOR COOLANT SYSTEM HIGH POINT VENTS

Dear Mr. Vassallo:

As requested by your letter of January 26, 1982, Carolina Power & Light Company (CP&L) submits the attached information concerning NUREG-0737 Item II.B.1, Reactor Coolant System High Point Vents, for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. Specific responses to the the two questions in your letter are contained in Enclosure 1.

Previous correspondence concerning this subject include the following references:

1. Letter from D. B. Vassallo (NRC) to J. A. Jones (CP&L) dated January 26, 1982.

2. Letter from T. D. Keenan (BWR Owners' Group) to D. G. Eisenhut (NRC), "GE BWR Owners' Group NUREG-0578 Positions Submittal Schedule", dated October 17, 1979.

3. Letter from D. B. Waters (BWR Owners' Group) to D. G. Eisenhut (NRC), "NUREG-0660/0737 Requirement II.B.1: Reactor Coolant System Vents", dated April 24, 1981.

4. Letter from E. E. Utley (CP&L) to D. G. Eisenhut (NRC) dated October 18, 1979.

5. Letter from E. E. Utley (CP&L) to H. R. Denton (NRC) dated December 31, 1979.

In general, CP&L believes these questions should have been submitted to the BWR Owners' Group (BWROG) as have past questions on this issue, since all utilities are supporting the BWROG position. The BWROG position has been transmitted to you by References 2 and 3. Carolina Power & Light Company's position, an endorsement of the BWROG position, has been previously transmitted by References 4 and 5.

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Carolina Power & Light Company believes that Brunswick is in compliance with the NUREG-0737 position and hopes the responses provided in this letter will facilitate the completion of your review.

Yours very truly,

S. R. Zimmerman
Manager
Licensing & Permits

WRM/RMP/ce (019C3T4)
Enclosure

cc: Mr. J. P. O'Reilly (NRC-RII)
Mr. J. Van Vliet (NRC)

ENCLOSURE 1
NUREG-0737 ITEM II.B.1
REACTOR COOLANT SYSTEM HIGH POINT VENTS

NRC QUESTION 1:

Identify any systems or equipment containing high points which may need venting (for example, the RHR heat exchanger) to maintain adequate core cooling. Describe the methods and indications used to identify the need to vent, the equipment used to vent, and the vent flow path, and discharge area of each of the above identified vents.

CP&L RESPONSE:

The following emergency core cooling systems are available for maintaining reactor vessel water level:

High Pressure Coolant Injection (HPCI)
Reactor Core Isolation Cooling (RCIC)
Low Pressure Coolant Injection (LPCI)
Core Spray (CS)

All of the above systems vent through the reactor vessel. The performance of these systems does not involve the need for venting other than reactor vessel venting.

Brunswick is not equipped with Isolation Condensers.

NRC QUESTIONS 2:

If it were necessary to use the reactor vessel head vents in order to maintain adequate core cooling post-LOCA, discuss the guidelines the operator would follow to use these vents including:

a) When to vent or not vent considering combustible gas concentration in containment,

b) Potential single failure in the vent path, including the failure of a valve to close,

c) The effect of vent discharge on surrounding equipment.

CP&L RESPONSE:

a) The issue of when to vent and not vent has been previously discussed in Reference 4. Since Brunswick has an inerted Mark I containment for controlling combustible gas concentrations through oxygen deficiency control, the issue of when to vent is not relevant.

b) Since the use of the head vent on the reactor vessel is only a remote contingency for vessel venting while pressurized, the issue of a failure of the head vent valve to close is not realistic. However, Brunswick's vessel head vent line has two valves in series

operated by a pneumatic source off separate solenoids. The valves fail closed on a loss of air or electrical power.

c) The head vent line is a 1/2-inch size line discharging to the equipment drain sump in the floor of the drywell. The vent release is, therefore, contained within the primary containment. The possibility of using the head vent while pressurized is extremely remote; however, if this were to occur, the effect of vent discharge on the surrounding equipment would be less than a small-break LOCA.