

CP&L

USNRC REGION II
ATLANTA, GEORGIA

Carolina Power & Light Company

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Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429

April 30, 1982

FILE: B09-13520
SERIAL: BSEP/82-932

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 3100
101 Marietta Street N.W.
Atlanta, GA 30303

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-324 AND 50-325
LICENSE NOS. DPR-62 AND DPR-71
IDENTIFIED 10CFR21 DEFICIENCY

Dear Mr. O'Reilly:

This confirms the telephone conversation at 1550 hours on April 29, 1982, between Mr. R. M. Poulk, Jr., Brunswick Regulatory Specialist, and Mr. C. A. Julian, of your office, concerning an item determined to be reportable per 10CFR21.

At a recent meeting between Carolina Power & Light Company and its architect-engineer, United Engineers & Constructors, to review the Reactor Building environmental report, it was determined that a postulated pipe crack in the HPCI, RCIC, RWCU, and main steam line drains could result in a limiting environment for the Reactor Building for both units. Specifically, a deficiency in the leak detection system exists such that a leak or break outside the pipe tunnel on these connections to the main feedwater lines will not be detected and/or terminated by an existing system. Due to the lack of humidity or temperature detection in the area of these pipes, a postulated critical crack would allow the Reactor Building to reach a steady state temperature of 212°F at 100 percent relative humidity, which creates a Reactor Building environment that exceeds that for which the equipment is currently qualified, and therefore, a safety hazard would exist. Modifications which have been discussed to date to mitigate or limit the effects of other HELB's in the Reactor Building would not limit the effects of these cracks.

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Mr. James P. O'Reilly

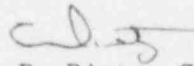
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April 30, 1982

CP&L and UE&C are currently reviewing various modifications to correct this problem. The most probable solution would be the installation of check valves in each of these lines inside the main steam line tunnel. These check valves would prevent the backflow of feedwater through the postulated critical crack in the event that such a crack did materialize. An engineering solution to this problem has not been definitely decided on, and therefore, the engineering and procurement of components has not yet begun. It is currently impossible to project a completion date for modifying these systems. A supplemental response to this report will be issued by August 31, 1982, providing a schedule for determining the corrective action required and the installation of any required modifications.

The stress levels in the subject piping are well within the limits for this size piping; therefore, the occurrence of these cracks is a very remote possibility. It is concluded that the Brunswick Unit Nos. 1 and 2 may continue to operate until such modifications are made with no undue risk to the health and safety of the public.

Very truly yours,



C. R. Dietz, General Manager
Brunswick Steam Electric Plant

RMP/gvc

Enclosure

cc: Mr. V. Stello, Jr.