



Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

April 15, 1997

SERIAL: BSEP 97-0147

U. S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
MAIN STEAM LINE BREAK CONTROL ROOM DOSE CALCULATION

Gentlemen:

In a letter dated February 28, 1997 (Serial: BSEP 97-0099), Carolina Power & Light (CP&L) Company committed to submit an updated Main Steam Line Break (MSLB) control room dose calculation by April 15, 1997. Enclosure 1 contains this calculation.

The results of the updated MSLB calculation indicate that the thyroid dose to the operators could be as high as 34.2 rem following an accident if the reactor coolant activity is assumed to be 4.0 micro-curies per gram dose equivalent I-131. As stated in the letter dated February 28, 1997, CP&L has implemented administrative controls to limit reactor coolant activity to less than 0.1 micro-curies per gram dose equivalent I-131. CP&L will maintain this administrative control until a license amendment request limiting reactor coolant peak activity can be approved. A license amendment request limiting reactor coolant peak activity to less than 3.0 micro-curies per gram dose equivalent I-131 will be submitted by May 23, 1997. A peak reactor coolant activity of 3.0 micro-curies per gram dose equivalent I-131 results in a calculated thyroid dose of 25.5 rem thyroid, well below the General Design Criterion 19 limit.

Please refer any questions regarding this submittal to Mr. Mark Turkal, Supervisor - Licensing at (910) 457-3066.

Sincerely,

Keith R. Jury
Manager — Regulatory Affairs
Brunswick Steam Electric Plant

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Enclosures:

1. Main Steam Line Break Control Room Dose Calculation
2. List of Regulatory Commitments

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pc (with enclosures):

U. S. Nuclear Regulatory Commission
ATTN.: Mr. Luis A. Reyes, Regional Administrator
101 Marietta Street, N.W., Suite 2900
Atlanta, GA 30323-0199

U. S. Nuclear Regulatory Commission
ATTN: Mr. C. A. Patterson, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461

U. S. Nuclear Regulatory Commission
ATTN.: Mr. David C. Trimble, Jr. (Mail Stop OWFN 14H22)
11555 Rockville Pike
Rockville, MD 20852-2738

The Honorable J. A. Sanford
Chairman - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
NRC DOCKET NOS. 50-325 AND 50-324
OPERATING LICENSE NOS. DPR-71 AND DPR-62
SUBJECT MAIN STEAM LINE BREAK CONTROL ROOM DOSE CALCULATION

Main Steam Line Break Control Room Dose Calculation