

April 26, 2010

10 CFR 50.36a

Serial: **BSEP 10-0060**

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

Subject:

Brunswick Steam Electric Plant, Unit Nos. 1 and 2

Renewed Facility Operating License Nos. DPR-71 and DPR-62

Docket Nos. 50-325 and 50-324

Radioactive Effluent Release Report for 2009

Ladies and Gentlemen:

In accordance with 10 CFR 50.36a and Technical Specification (TS) 5.6.3 for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., is submitting the enclosed Radioactive Effluent Release Report for BSEP Unit Nos. 1 and 2. This report covers the period from January 1, 2009, through December 31, 2009.

TS 5.5.1, "Offsite Dose Calculation Manual (ODCM)," requires changes to the ODCM be submitted as part of or concurrent with the Radioactive Effluent Release Report. A copy of Revision 33 of the BSEP ODCM, current as of December 31, 2009, is included as Enclosure 2. Changes made to the ODCM during 2009 are summarized in the 2009 Radioactive Effluent Release Report.

No regulatory commitments are contained in this submittal. Please refer any questions regarding this submittal to Ms. Annette Pope, Supervisor - Licensing/Regulatory Programs, at (910) 457-2184.

Sincerely,

Phyllis N. Mentel

Manager - Support Services

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Brunswick Steam Electric Plant

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Enclosures:

- 1. Radioactive Effluent Release Report for 2009
- 2. Offsite Dose Calculation Manual, Revision 33

Progress Energy Carolinas, Inc.

Brunswick Nuclear Plant PO Box 10429 Southport, NC 28461



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cc (with Enclosure 1 only):

U. S. Nuclear Regulatory Commission, Region II ATTN: Mr. Luis A. Reyes, Regional Administrator 245 Peachtree Center Avenue, NE Suite 1200 Atlanta, GA 30303-1257

U. S. Nuclear Regulatory Commission ATTN: Mr. Philip B. O'Bryan, NRC Senior Resident Inspector 8470 River Road Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission (Electronic Copy Only) ATTN: Mrs. Farideh E. Saba (Mail Stop OWFN 8G9A) 11555 Rockville Pike Rockville, MD 20852-2738

Chair - North Carolina Utilities Commission P.O. Box 29510 Raleigh, NC 27626-0510