



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 21, 2013

Mr. Michael J. Annacone, Vice President  
Brunswick Steam Electric Plant  
Carolina Power & Light Company  
Post Office Box 10429  
Southport, North Carolina 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1 – REVIEW OF CORE  
OPERATING LIMITS REPORT FOR CYCLE 19 (TAC NO. ME8321)

Dear Mr. Annacone:

By letter dated March 30, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML121000138), Carolina Power & Light Company, the licensee for the Brunswick Steam Electric Plant, Unit 1 (BSEP1), submitted the Cycle 19 Core Operating Limits Report (COLR) for information in accordance with the BSEP1 Technical Specifications, Section 5.6.5.d. The licensee enclosed ANP-2989(P), *Brunswick Unit 1 Thermal-Hydraulic Design Report for ATRIUM™ 10XM Fuel Assemblies*, Revision 0, with the COLR report for information, and to satisfy a commitment in an April 29, 2010 (ADAMS Accession No. ML101310388), license amendment request.

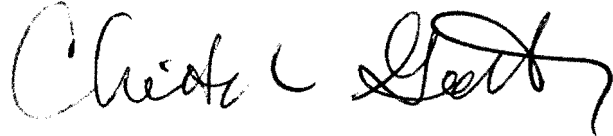
The staff reviewed BSEP1 Cycle 19 COLR, focusing on the following areas: (1) conformance with the Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," guidance; (2) methodology used for maximum average planar linear heat-generation rate from different fuel vendors and its multipliers used for single loop operation; (3) the licensee's justification for maintaining margin to thermal limits by plant procedures and monitoring systems; and (4) the Stability Option III implementation for BSEP1 Cycle 19. On August 9, 2012, as modified on August 30, 2012 (ADAMS Accession Nos. ML12223A196 and ML13070A293, respectively), the U.S. Nuclear Regulatory Commission (NRC) staff requested additional information (RAI) from the licensee to supplement its review. The licensee responded to the RAI on October 2, 2012 (ADAMS Accession No. ML12290A013).

M. Annacone

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The purpose of this letter is to inform you that the NRC staff has completed its review and has no further questions at this time. If you have any questions regarding this review, please contact me at 301-415-1055, or by email at [Christopher.Gratton@nrc.gov](mailto:Christopher.Gratton@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Gratton", with a stylized flourish at the end.

Christopher Gratton, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-325

cc: Distribution via ListServ

M. Annacone

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Sincerely,

**/RA/**

Christopher Gratton, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
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