



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

April 12, 2011

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, UNITS 1 AND 2 – CORRECTION TO
AMENDMENT NOS. 256 AND 284 (TAC NOS. ME3858 AND ME3859)

Dear Mr. Annacone:

By letter dated April 8, 2011, the U.S. Nuclear Regulatory Commission (NRC) issued Amendment Nos. 256 and 284 to Renewed Facility Operating License Nos. DPR-71 and DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2, respectively. The amendments were in response to your application dated April 29, 2010, as supplemented by letters dated June 9, July 22, July 29, September 29, October 12, November 9, November 18, and December 16, 2010; March 16 and April 6, 2011.

The April 8, 2011 letter stated that the NRC staff's safety evaluation (SE) contained proprietary information and, accordingly the NRC staff prepared a redacted, nonproprietary version. The letter also stated that we would delay placing the nonproprietary SE in the public document room for a period of 10 working days from the date of this letter to provide you with the opportunity to comment on any proprietary aspects. However, this process is not consistent with the NRC's procedure for issuing amendments. Also, the draft proprietary SE with markups for proprietary information had been reviewed by your staff for the proprietary information prior to issuance of the amendment. Therefore, given the aforementioned reasons, the nonproprietary version of the SE was made public upon issuance of the amendments.

In addition, upon issuance of the amendments, the NRC staff noticed that the nonproprietary version of the SE was incorrectly marked as Enclosure 4, instead of Enclosure 3. The corrected page is enclosed.

We regret any inconvenience this may have caused. If you have any questions regarding this matter, please contact me at (301) 415-1447.

Sincerely,

A handwritten signature in black ink that reads "Farideh E. Saba".

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

cc w/enclosure: Distribution via ListServ



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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 256 AND 284

TO RENEWED FACILITY OPERATING LICENSES NOS. DPR-71 AND DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By application dated April 29, 2010 (Reference 1), as supplemented by letters dated June 9, July 22, July 29, September 29, October 12, November 9, November 18, and December 16, 2010; March 16, and April 6, 2011, (References 2 through 11 and Reference 41) Carolina Power & Light Company (CP&L, the licensee) requested license amendments to revise Technical Specifications (TSs) for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed license amendments will revise BSEP TS 5.6.5.b by adding AREVA's topical report, BAW-10247PA, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors," Revision 0, April 2008 (Reference 12), to the list of analytical methods that have been reviewed and approved by the Nuclear Regulatory Commission (NRC) for determining core operating limits. The proposed amendments would change the BSEP TSs to support transition to ATRIUM 10XM fuel and associated core design methodologies.

BSEP, Units 1 and 2 are General Electric (GE) boiling water reactors (BWRs) BWR/4 design. Both BSEP units are currently operating at 120 percent of originally licensed thermal power at extended power uprate and maximum extended load line limit analysis conditions. Each unit's reactor core is composed of 560 fuel assemblies. In each cycle, approximately 40 percent of the irradiated fuel assemblies are replaced with new fuel. On March 27, 2008, the NRC issued Amendments Nos. 246 and 274 for transition from GE fuel to ATRIUM-10 fuel for BSEP, Units 1 and 2, respectively (Reference 13). The first transition from GE fuel to ATRIUM-10 fuel occurred in spring 2008 and spring 2009, when the licensee loaded 248 and 238 fresh ATRIUM 10 fuel assemblies in BSEP, Units 1 and 2, respectively.

The licensee plans to implement this amendment, loading the ATRIUM 10XM fuel design in the BSEP, Unit 2 during the spring 2011 refueling outage, beginning with Cycle 20. The BSEP, Unit 1 amendments supporting transitioning to ATRIUM 10XM will be implemented during the spring 2012 refueling outage, beginning with Cycle 19.

The supplements dated June 9, July 29, September 29, October 12, November 9, November 18, and December 16, 2010; March 16, and April 6, 2011, provided additional information that clarified the application, did not expand the scope of the original *Federal Register* notice, did not change the NRC staff's original proposed no significant hazards consideration determination as

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/RA/

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
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