



# Progress Energy

Michael J. Annacone  
Vice President  
Brunswick Nuclear Plant

OCT 12 2010

SERIAL: BSEP 10-0118  
TSC-2010-01 & TSC-2010-02

10 CFR 50.90

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  
Additional Information Supporting License Amendment Requests  
- ATRIUM 10XM Fuel Rod Thermal and Mechanical Evaluation for  
Brunswick Unit 2 Cycle 20 (NRC TAC Nos. ME3856, ME3857, ME3858,  
and ME3859)

#### References:

1. Letter from Michael J. Annacone to the U.S. Nuclear Regulatory Commission (Serial: BSEP 10-0052), "Request for License Amendments - Addition of Analytical Methodology Topical Report to Technical Specification 5.6.5, "Core Operating Limits Report (COLR)," dated April 29, 2010 (ADAMS Accession Number ML101310388)
2. Letter from Michael J. Annacone to the U.S. Nuclear Regulatory Commission (Serial: BSEP 10-0057), "Request for License Amendments - Addition of Analytical Methodology Topical Report to Technical Specification 5.6.5, "Core Operating Limits Report (COLR)," dated April 29, 2010 (ADAMS Accession Number ML101310389)

#### Ladies and Gentlemen:

By letters dated April 29, 2010 (i.e., References 1 and 2), Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., requested license amendments to revise the Technical Specifications (TS) for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. The proposed license amendments revise Technical Specification 5.6.5.b by adding: (1) AREVA Topical Report ANP-10298PA, *ACE/ATRIUM 10XM Critical Power Correlation*, Revision 0, March 2010, and (2) AREVA Topical Report BAW-10247PA, *Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors*, Revision 0, April 2008, to the list of analytical methods that have been reviewed and approved by the NRC for determining core operating limits.

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In these requests, CP&L stated that the Mechanical Design Reports and Reload Safety Analysis Report would be provided to the NRC, for information, in November 2010. Two mechanical design reports will support the BSEP, Unit 2 Cycle 20 core reload. The first report, ANP-2950P, Revision 0, *ATRIUM 10XM Fuel Rod Thermal and Mechanical Evaluation for Brunswick Unit 2 Cycle 20 Reload BRK2-20*, dated October 2010, has been completed and is provided in Enclosure 1. ANP-2950P, Revision 0, contains information that AREVA considers to be proprietary, as defined by 10 CFR 2.390. AREVA, as the owner of the proprietary information, has executed the affidavit provided in Enclosure 2, which identifies that the enclosed proprietary information has been handled and classified as proprietary, is customarily held in confidence, and has been withheld from public disclosure. AREVA requests that the enclosed proprietary information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390. A non-proprietary version of ANP-2950P, Revision 0 (i.e., ANP-2950NP, Revision 0), is provided in Enclosure 3.

The second mechanical design report, which summarizes cycle-independent evaluations of the ATRIUM 10XM fuel assembly and channel structural design, and the Reload Safety Analysis Report will be provided to the NRC, through a separate letter, in November 2010.

No regulatory commitments are contained in this letter. Please refer any questions regarding this submittal to Mr. Lee Grzeck, Acting Supervisor - Licensing/Regulatory Programs, at (910) 457-2487.

I declare, under penalty of perjury, that the foregoing is true and correct. Executed on October 12, 2010.

Sincerely,



Michael J. Annacone

WRM/wrm

Enclosures:

1. AREVA Report ANP-2950P, Revision 0, *ATRIUM 10XM Fuel Rod Thermal and Mechanical Evaluation for Brunswick Unit 2 Cycle 20 Reload BRK2-20*, dated October 2010 (**Proprietary Information – Withhold from Public Disclosure in Accordance With 10 CFR 2.390**)
2. AREVA Affidavit Regarding Withholding ANP-2950P, Revision 0, from Public Disclosure
3. AREVA Report ANP-2950NP, Revision 0, *ATRIUM 10XM Fuel Rod Thermal and Mechanical Evaluation for Brunswick Unit 2 Cycle 20 Reload BRK2-20*, dated October 2010

cc (with all enclosures):

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

cc (with only Enclosures 2 and 3):

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

Mr. W. Lee Cox, III, Section Chief  
Radiation Protection Section  
North Carolina Department of Environment and Natural Resources  
1645 Mail Service Center  
Raleigh, NC 27699-1645

BSEP 10-0118  
Enclosure 2

AREVA Affidavit Regarding Withholding  
ANP-2950P, Revision 0,  
from Public Disclosure



requested qualifies under 10 CFR 2.390(a)(4) "Trade secrets and commercial or financial information."

6. The following criteria are customarily applied by AREVA NP to determine whether information should be classified as proprietary:

- (a) The information reveals details of AREVA NP's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
- (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for AREVA NP.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for AREVA NP in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by AREVA NP, would be helpful to competitors to AREVA NP, and would likely cause substantial harm to the competitive position of AREVA NP.

The information in the Document is considered proprietary for the reasons set forth in paragraphs 6(b), 6(d) and 6(e) above.

7. In accordance with AREVA NP's policies governing the protection and control of information, proprietary information contained in this Document have been made available, on a limited basis, to others outside AREVA NP only as required and under suitable agreement providing for nondisclosure and limited use of the information.

8. AREVA NP policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

Alan S. McCoy

SUBSCRIBED before me this 8<sup>th</sup>  
day of October, 2010.

Susan K. McCoy

Susan K. McCoy  
NOTARY PUBLIC, STATE OF WASHINGTON  
MY COMMISSION EXPIRES: 1/10/12

