Progress Energy

DEC 19 2007

SERIAL: BSEP 07-0147

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

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Docket Nos. 50-325 and 50-324/License Nos. DPR-71 and DPR-62
Notification of Intent to Perform Evaluations Using Vendor Safety Analyses Codes

Ladies and Gentlemen:

As requested in NRC Generic Letter 83-11, Supplement 1, "Licensee Qualification for Performing Safety Analyses," Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., is notifying the NRC of our intent to perform safety analyses using NRC-approved methods supplied by AREVA. Specifically, CP&L intends to begin performing cold shutdown margin evaluations for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2, using the methodology from EMF-2158(P)(A), "Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-4/MICROBURN-B2." CP&L has reviewed the guidelines provided in Generic Letter 83-11, Supplement 1, for licensee use of vendor methods and has implemented the guidelines as described in the enclosure of this letter.

Generic Letter 83-11, Supplement 1, establishes a three-month guideline for prior NRC notification of the use of applicable safety evaluation processes. CP&L intends to begin performing cold shutdown margin evaluations beginning with the Brunswick Unit 1 Refueling Outage 16 (i.e., B117R1) scheduled to begin March 15, 2008; thus, this guideline is satisfied.

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

Sincerely,

Randy C. Ivey
Manager - Support Services
Brunswick Steam Electric Plant

WRM/wrm

Enclosure: Compliance With NRC Generic Letter 83-11, Supplement 1

cc (with enclosure):

U. S. Nuclear Regulatory Commission, Region II
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U. S. Nuclear Regulatory Commission
ATTN: Mr. Joseph D. Austin, NRC Senior Resident Inspector
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Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission **(Electronic Copy Only)**
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Rockville, MD 20852-2738

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Compliance With NRC Generic Letter 83-11, Supplement 1

Eligibility

The CASMO-4/MICROBURN-B2 code system and associated methodologies were approved by the NRC in the Safety Evaluation Report (SER) dated October 18, 1999, for topical report EMF-2158(P)(A), "Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-4/MICROBURN-B2." AREVA is using these methods for the reload design and licensing analysis activities for Brunswick Steam Electric Plant, Units 1 and 2 beginning with Unit 1 Cycle 17 operations which will begin in April 2008. CP&L intends to use the portion of the methodology applicable to cold shutdown margin (CSDM), as approved by the NRC, observing all applicable SER restrictions. No changes to the methodology or applications, as approved by the NRC, will be made. CP&L will first use the CSDM methods for in-house calculations for the upcoming Brunswick Unit 1 refueling outage scheduled to begin March 15, 2008.

Application Procedures

CP&L has generated procedures for use in CSDM analyses that provide sufficiently detailed instructions on performing the calculations in a manner consistent with the aforementioned NRC-approved methodology.

Training and Qualification of Licensee Personnel

AREVA provided formal training to selected CP&L Nuclear Fuel employees. CP&L also maintains a formal task specific training program that includes CSDM analysis training. The qualification of CP&L personnel will be maintained on a task-specific basis.

Comparison Calculations

CP&L has performed benchmarking calculations for CSDM analyses included in the scope of this notification. These benchmarking calculations were based on operating data from both Brunswick Unit 1 and Unit 2, are documented in a calculation file in accordance with our quality program, and demonstrate CP&L's ability to use the software for this purpose.

Quality Assurance and Change Control

AREVA provides quality assurance and change control for CASMO-4/MICROBURN-B2 using a formal software development record. Software is installed and controlled in accordance with AREVA software quality assurance procedures and is executed on AREVA hardware. The AREVA software quality assurance program is in compliance with the 10 CFR 50, Appendix B requirements. As part of this program, AREVA is obliged to notify CP&L of any software errors. Error corrections or code upgrades are provided to CP&L along with applicable documentation. CP&L will likewise report any CP&L-identified errors to AREVA.

The CSDM evaluations performed with CASMO-4/MICROBURN-B2 will be conducted under the control of CP&L's quality assurance program.