



Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

DEC 07 2000

10 CFR 50.46(a)(3)(ii)

SERIAL: BSEP 00-0165

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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
PLANT-SPECIFIC EMERGENCY CORE COOLING SYSTEM (ECCS) EVALUATION
MODEL REANALYSIS

Gentlemen:

By letter dated August 29, 2000 (Serial: BSEP 00-0119), in accordance with 10 CFR 50.46(a)(3)(ii), Carolina Power & Light (CP&L) Company submitted an annual report summarizing the effect of changes and errors in the limiting loss-of-coolant accident (LOCA) Emergency Core Cooling System (ECCS) evaluation model for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. In the letter, CP&L stated that a reanalysis of the limiting ECCS evaluation model for BSEP, Units 1 and 2, was in progress and that the results of the reanalysis would be submitted by October 31, 2000. Subsequently, by letter dated October 26, 2000 (Serial: BSEP 00-0153), CP&L revised the expected submittal date to January 31, 2001, to accommodate additional time needed by General Electric to complete the ECCS evaluation model reanalysis.

General Electric has completed the reanalysis of the limiting LOCA ECCS evaluation model for BSEP, Units 1 and 2, to establish new licensing basis peak cladding temperatures (PCTs). The reanalysis was performed using the SAFER/GESTR LOCA analysis methodology described in the following document:

Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis, NEDC-31624P, Revision 0, Class III, September 1988.

NRC approval of the use of the SAFER/GESTR methodology for BSEP, Units 1 and 2, was provided in a letter dated June 1, 1989. Subsequently, NRC approval of changes to the SAFER/GESTR methodology for BSEP, Units 1 and 2, was provided in a letter dated January 10, 1991.

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The General Electric reanalysis of the limiting ECCS evaluation model for BSEP, Units 1 and 2, replaces the following two documents:

Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis, NEDC-31624P, Revision 2, Class III, July 1990.

Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis: Application to GE13 Fuel, NEDC-31624P, Supplement 3, Revision 0, January 1996.

The replacement document, which is identified below, is a revised and expanded version of the second document:

Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis: Application to GE13 Fuel, NEDC-31624P, Supplement 3, Revision 1, November 2000.

A copy of NEDC-31624P, Supplement 3, Revision 1 is provided in Enclosure 2. Global Nuclear Fuel considers NEDC-31624P, Supplement 3, Revision 1 to be proprietary information. Therefore, the document should be withheld from public disclosure in accordance with 10 CFR 9.17 and 10 CFR 2.790. An affidavit supporting the request for withholding the document is provided in Enclosure 3.

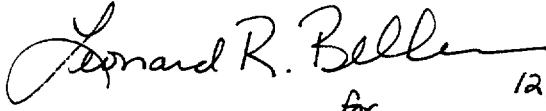
The General Electric reanalysis of the limiting ECCS evaluation model for BSEP, Units 1 and 2, has established both new licensing basis PCT values and new upper bound PCT values for the GE13 fuel type. The new licensing basis PCT for BSEP, Units 1 and 2, has been established as $<1710^{\circ}\text{F}$ (GE13 fuel type). Because the GE7, GE8, GE9, and GE10 fuel types are no longer being used in the BSEP, Unit 1 or 2 reactor cores, only the results applicable to the GE13 fuel type are now considered the licensing basis PCTs. Based on the reanalysis results, the Updated Final Safety Analysis Report for BSEP, Units 1 and 2, will be revised to reflect the new licensing basis PCTs.

A summary of the PCT changes with respect to the previously reported licensing basis PCTs and upper bound PCTs is provided in Enclosure 1. The GE7 values are not recalculated but are merely the most recently reported values increased by the accumulated absolute value of reported errors. Since GE7 fuel is no longer included in the BSEP licensing basis, CP&L will not report future changes and errors in the limiting ECCS evaluation model resulting from GE7 fuel.

In addition, the reporting of the upper bound PCT values is not required to satisfy 10 CFR 50.46. Therefore, while CP&L is continuing to track changes and errors applicable to the upper bound PCTs to ensure the stipulations of the NRC Safety Evaluation approving use of the SAFER/GESTR methodology are being met, CP&L will not provide the effect of future changes and errors on the upper bound PCTs.

No regulatory commitments are contained in this submittal. Please refer any questions regarding this submittal to Mr. Leonard R. Beller, Supervisor - Licensing, at (910) 457-2073.

Sincerely,


for 12/07/2000

David C. DiCello
Manager - Regulatory Affairs
Brunswick Steam Electric Plant

WRM/wrm

Enclosures:

1. Summary of Peak Cladding Temperature Changes
2. Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis: Application to GE13 Fuel, NEDC-31624P, Supplement 3, Revision 1, November 2000 **[PROPRIETARY INFORMATION]**
3. Affidavit From General Electric Regarding Withholding From Public Disclosure In Accordance With 10 CFR 9.17 and 10 CFR 2.790

cc (with Enclosures 1, 2, and 3):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Luis A. Reyes, Regional Administrator
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303-8931

U. S. Nuclear Regulatory Commission
ATTN: Mr. Theodore A. Easlick, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission
ATTN: Mr. Donnie J. Ashley (Mail Stop OWFN 8G9)
11555 Rockville Pike
Rockville, MD 20852-2738

cc (with Enclosure 1 only):

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

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62 PLANT-SPECIFIC EMERGENCY CORE COOLING SYSTEM (ECCS) EVALUATION MODEL REANALYSIS

Summary of Peak Cladding Temperature Changes

The following is a summary of the peak cladding temperature (PCT) changes for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, with respect to the previously reported licensing basis PCTs and upper bound PCTs.

BSEP Licensing Basis PCT Change Summary (Through 11/7/00)			
Unit and Fuel Type	Greatest Licensing Basis PCT Reported in a LOCA Document Submitted to the NRC	Current Estimated Licensing Basis PCT	Change From Reported Licensing Basis PCT
BSEP 1 GE7*	1533°F	1704°F	+171°F
BSEP 1 GE13	1535°F	<1710°F	+175°F
BSEP 2 GE7*	1537°F	1708°F	+171°F
BSEP 2 GE13	1535°F	<1710°F	+175°F
* GE7 results bound GE8, GE9, and GE10 fuel types.			

BSEP Upper Bound PCT Change Summary (Through 11/7/00)			
Unit and Fuel Type	Greatest Upper Bound PCT Reported in a LOCA Document Submitted to the NRC	Current Estimated Upper Bound PCT	Change From Reported Upper Bound PCT
BSEP 1 GE7*	1353°F	1561°F	+208°F
BSEP 1 GE13	1448°F	<1560°F	+112°F
BSEP 2 GE7*	1390°F	1598°F	+208°F
BSEP 2 GE13	1448°F	<1560°F	+112°F
* GE7 results bound GE8, GE9, and GE10 fuel types.			

ENCLOSURE 3

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
PLANT-SPECIFIC EMERGENCY CORE COOLING SYSTEM (ECCS)
EVALUATION MODEL REANALYSIS

Affidavit From General Electric
Regarding Withholding From Public Disclosure
In Accordance With 10 CFR 9.17 and 10 CFR 2.790

General Electric Company

AFFIDAVIT

I, George B. Stramback, being duly sworn, depose and state as follows:

- (1) I am Project Manager, Regulatory Services, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in the GE proprietary report NEDC-31624P, *Brunswick Steam Electric Plant Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis Application to GE13 Fuel*, Supplement 3 Revision 1, Class III (GE Proprietary Information), dated November 2000. The proprietary information is delineated by bars marked in the margin adjacent to the specific material.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;
 - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;

- c. Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;
- e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in both paragraphs (4)a. and (4)b., above.

- (5) The information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information identified in paragraph (2), above, is classified as proprietary because it contains detailed results of analytical models, methods and processes, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of the loss-of-coolant accident for the BWR.

The development and approval of the BWR loss-of-coolant accident analysis computer codes used in this analysis was achieved at a significant cost, on the order of several million dollars, to GE.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GE.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

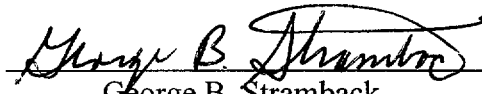
The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

STATE OF CALIFORNIA)
) ss:
COUNTY OF SANTA CLARA)

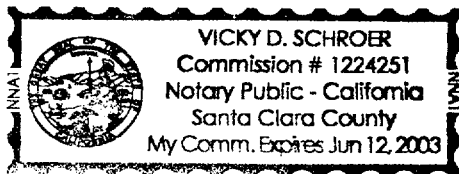
George B. Stramback, being duly sworn, deposes and says:

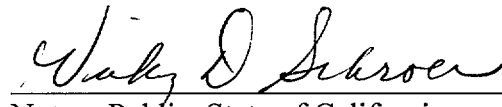
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 9th day of November 2000.


George B. Stramback
General Electric Company

Subscribed and sworn before me this 9th day of November 2000.




Notary Public, State of California