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January 4, 1990

the southern electric system

W. G. Hairston, III
Senior Vice President
Nuclear Operations

ELV-01196
0183

Docket No. 50-424

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
EVALUATION OF PRESSURIZER SURGE LINE
THERMAL STRATIFICATION

On December 20, 1988, the NRC issued Bulletin 88-11 regarding pressurizer surge line thermal stratification. The bulletin requested that utilities implement a program to confirm the integrity of the pressurizer surge line considering the effects of thermal stratification. In response to the bulletin, the surge line supports for VEGP Unit 2 were modified based on the application of leak-before-break methodology, which had previously been accepted for the Unit 2 pressurizer surge line. With this modification, the Unit 2 pressurizer surge line was analyzed for the effects of thermal stratification and found to be acceptable. The results of these analyses were documented in WCAP-12218 and transmitted to the NRC by Georgia Power Company (GPC) letter GN-1585 dated March 22, 1989.

VEGP Unit 1 was operating at the time that this analysis and modification was performed for VEGP Unit 2. A Justification for Continued Operation was prepared for VEGP Unit 1 demonstrating the acceptability of continued power operation through at least December 1990 or until a detailed plant specific analysis could be performed. Except for operating history, the two units are identical relative to the primary factors which affect thermal stratification transients. Therefore, in order to keep a consistent design and licensing basis for the two units GPC decided to use the same type of analysis for Unit 1 as was used for Unit 2. The fatigue crack growth and leak-before-break analyses for Unit 2 have been updated consistent with the loading conditions, operating history, and material properties of Unit 1 such that the application of leak-before-break can be extended to Unit 1. These additional plant specific analyses are documented in WCAP-12218 Supplement 1.

The analyses have determined that thermal stratification does not have a significant impact on the integrity of the pressurizer surge line for Vogtle Unit 1. This conclusion applies for the forty year design life of the unit, considering both the period of operation with the existing support configuration as well as the forthcoming support modification to emulate the Unit 2 design. These Unit 1 analyses assume that there will be only one rigid support on the surge line after the 1990 refueling outage and that the maximum system delta-T will be 320 deg-F.

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Due to the similarity of the design and analyses for Units 1 and 2 and the NRC's previous review and approval of the analysis for Unit 2, GPC requests that the NRC expedite the review of Supplement 1 to WCAP-12218 and extend its previous approval for Unit 2 to include Unit 1. Approval by February 23, 1990, will enable GPC to implement the modification to the Unit 1 pressurizer surge line supports during the February 1990 refueling outage.

In fulfillment of the actions requested by Section 1b of Bulletin 88-11, the following are provided:

1. 5 copies of WCAP-12218, Supplement 1 "Supplementary Analysis to Address Thermal Stratification for Vogtle Unit 1 Pressurizer Surge Line", dated December 1989 (Proprietary).
2. 5 copies of WCAP-12219, Supplement 1 "Supplementary Analysis to Address Thermal Stratification for Vogtle Unit 1 Pressurizer Surge Line", dated December 1989 (Non-Proprietary).

Also enclosed is a Westinghouse Application for Withholding letter, CAW-89-123, Proprietary Information Notice, and accompanying Affidavit.

As item 1 contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790 of the commission's regulations.

Correspondence with respect to the proprietary aspects of the Application for Withholding or the supporting Westinghouse Affidavit should reference CAW-89-123 and should be addressed to R. A. Wiesemann, Manager of Regulatory & Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

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Mr. W. G. Hairston, III states that he is a Senior Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company and that, to the best of his knowledge and belief, the facts set forth in this letter and enclosures are true.

GEORGIA POWER COMPANY

By: W. G. Hairston, III
W. G. Hairston, III

Sworn to and subscribed before me this 4th of January, 1990.

Sherry Ann Mitchell
Notary Public
MY COMMISSION EXPIRES DEC. 15, 1992

WGH, III/HWM/gm

Enclosures

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. P. D. Rushton
Mr. R. M. Odom
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. J. B. Hopkins, Licensing Project Manager, NRR
Mr. J. F. Rogge, Senior Resident Inspector, Vogtle