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the southern electric system

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

January 23, 1990

ELV-01238
0202

Docket Nos. 50-424
50-425

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
POTENTIAL LOSS OF REQUIRED SHUTDOWN MARGIN DURING REFUELING OPERATIONS
NRC BULLETIN 89-03

On November 21, 1989, the NRC issued Bulletin 89-03, "Potential Loss of Required Shutdown Margin During Refueling Operations." The Bulletin noted that although analyses are performed for PWR's to confirm that the refueling boron concentration is sufficient to maintain the required shutdown margin for the final core configuration, these analyses may not be sufficient to assure that the shutdown margin will be maintained for all intermediate fuel assembly positions. The Bulletin requested that Georgia Power Company (GPC) respond by providing assurance that adequate shutdown margin will be maintained during all refueling operations.

Westinghouse has performed an analysis for the purpose of developing guidelines to assure that subcriticality is maintained during refueling following a full core off-load which is the refueling method used at Vogtle Electric Generating Plant (VEGP). This analysis is applicable to fuel assemblies with enrichments up to 5.0 weight percent U-235. The guidelines account for the placement of fuel assemblies when temporarily stored along the baffle or when used to construct temporary "boxes" which may be required to load a difficult assembly.

GPC uses procedural requirements to control the location and movement of all fuel assemblies during refueling for VEGP. The VEGP refueling procedure has been revised in order to be consistent with the Westinghouse core loading guidelines. Adherence to these guidelines will assure that any intermediate core configuration will be less reactive than the final core configuration which is analyzed in the safety calculations. Therefore, the required minimum boron concentration of the VEGP Technical Specifications will be sufficient to maintain subcriticality for the final and any intermediate core configuration.

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Georgia Power

Plant personnel responsible for refueling operations will be trained in the above procedure, using required reading with the understanding of the potential consequences of violating these requirements. The fundamental aspects of criticality control with higher enriched fuel assemblies will be included, as appropriate, in this training. This training will be completed prior to fuel movement for the next refueling outage.

The above actions will assure that adequate shutdown margin is maintained during all refueling operations. This completes Georgia Power Company's response to Bulletin 89-03 for VEGP.

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 23rd day of January, 1990.

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

WGH,III/HWM/gm

Enclosures
xc (see next page)

Georgia Power

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. Ebneter, Regional Administrator
Mr. D. B. Matthews, Director Project Directorate II-3
Mr. R. F. Aiello, Senior Resident Inspector, Vogtle