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the southern electric system

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

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Docket No. 50-424

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

ELV-01316
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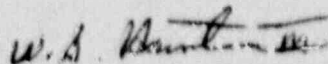
Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
RADIAL PEAKING FACTOR LIMIT REPORT

Enclosed is the Vogtle 1, Cycle 3 Radial Peaking Factor Limit Report. This report is provided in accordance with Paragraph 6.8.1.6 of the Vogtle Units 1 and 2 Technical Specifications. The enclosure also contains a copy of the elevation dependent peaking factor versus core height graph for Vogtle 1, Cycle 3 which is being submitted in support of the subject report.

Please contact this office if you have any questions.

Sincerely,



W. G. Hairston, III

WGH/TMM:kdc

Enclosure: Radial Peaking Factor Limit Report.

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

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ENCLOSURE

VOGTLE ELECTRIC GENERATING PLANT
RADIAL PEAKING FACTOR LIMIT REPORT

This Radial Peaking Factor Limit Report for Vogtle 1, Cycle 3 is provided in accordance with Paragraph 6.8.1.6 of the Vogtle Units 1 and 2 Technical Specifications.

The F_{xy} limits for RATED THERMAL POWER within specified core planes for Cycle 3 shall be:

1. F_{xy}^{RTP} less than or equal to 1.775 for all core planes containing Bank "D" control rods.
2. For all unrodded core planes:
 - F_{xy}^{RTP} less than or equal to 1.705 up to core elevations of 3.7 ft.
 - F_{xy}^{RTP} less than or equal to 1.660 for core elevations between 3.7 ft and 8.1 ft.
 - F_{xy}^{RTP} less than or equal to 1.765 for core elevations above 8.1 ft.

These $F_{xy}(z)$ limits are used to confirm that the heat flux hot channel factor $F_Q(z)$ will be limited to the Technical Specification values of:

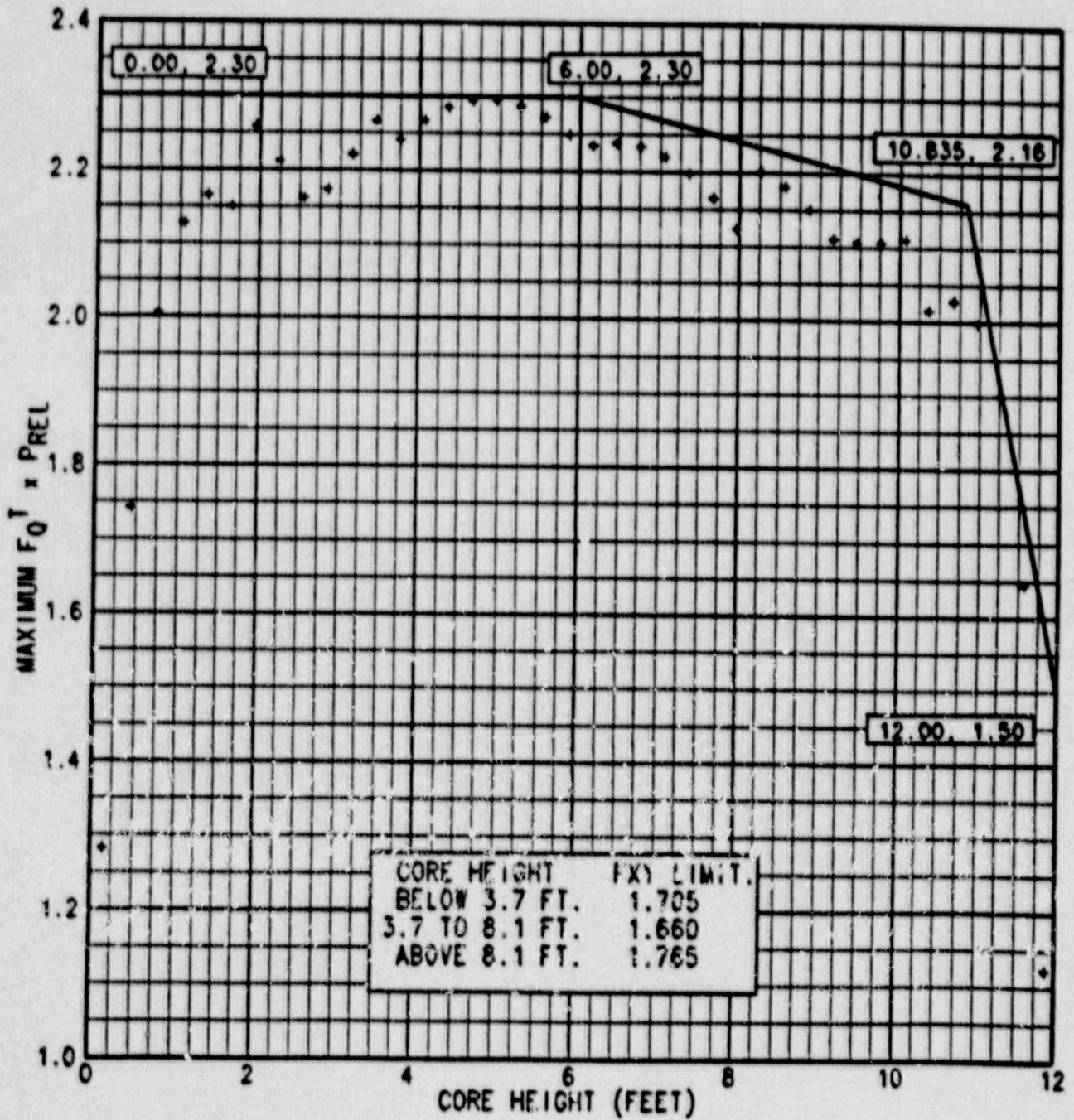
$$F_Q(z) \leq [2.30/P][K(z)] \text{ for } P > 0.5 \text{ and,}$$

$$F_Q(z) \leq 4.30 [K(z)] \text{ for } P \leq 0.5$$

assuming the most limiting axial power distributions expected to result from the insertion and removal of Control Banks C and D during operation, including the accompanying variations in the axial xenon and power distributions as described in the "Power Distribution Control and Load Following Procedures," WCAP-8395, September 1974. Therefore, these F_{xy} limits provide assurance that the initial conditions assumed in the LOCA analysis are met and the FCCS acceptance criterion limit of 2200°F for peak clad temperature is not exceeded.

ENCLOSURE

VOGTLE ELECTRIC GENERATING PLANT RADIAL PEAKING FACTOR LIMIT REPORT



MAXIMUM ($F_Q^T \times P_{REL}$) VERSUS CORE HEIGHT
DURING NORMAL OPERATION FOR VOGTLE 1, CYCLE 3