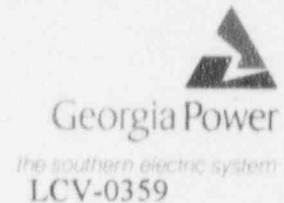


Georgia Power Company
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C. K. McCoy
Vice President, Nuclear
Vogtle Project

May 20, 1994



Docket Nos. 50-424
50-425

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT
FLUX HOT CHANNEL FACTOR $F_Q(Z)$

In accordance with the provisions of 10 CFR 50.90 and 10 CFR 50.92, Georgia Power Company (GPC) hereby proposes to amend the Vogtle Electric Generating Plant (VEGP) Unit 1 and Unit 2 Technical Specifications, Appendix A to Operating Licenses NPF-68 and NPF-81.

This amendment relocates the heat flux hot channel factor, $F_Q(Z)$, penalty of 2 percent in specification 4.2.2.2.f to the cycle-specific Core Operating Limits Report (COLR) to allow for burnup-dependent values of the penalty in excess of 2 percent. This amendment also revises the reference in specification 6.8.1.6 to the Westinghouse $F_Q(Z)$ surveillance methodology in order to reflect Revision 1 of WCAP-10216-P, "Relaxation of Constant Axial Offset Control - F_Q Surveillance Technical Specification," approved by the NRC on November 26, 1993.

Beginning with Unit 1 Cycle 6, GPC plans to apply the revised methodology. Cycle design calculations show that an $F_Q(Z)$ increase of greater than 2 percent is anticipated early in cycle life. In order to apply the revised methodology, it is necessary to revise specification 4.2.2.2.f to relocate the $F_Q(Z)$ penalty to the COLR and to revise specification 6.8.1.6 to reference Revision 1 of the topical report WCAP-10216-P. Review of the design and behavior of the current operating cycles for both units indicates that the standard 2-percent $F_Q(Z)$ penalty is adequate for the remainder of the cycles. However, GPC will relocate the standard penalty for the remainder of the current cycle of Unit 2 to the COLR for consistency since the Unit 1 and Unit 2 Technical Specifications are common.

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These changes are requested to be approved by September 30, 1994 in order to facilitate use of the revised methodology for Unit 1 Cycle 6 following the upcoming outage scheduled to begin in September 1994.

The proposed changes and bases for the changes are described in Enclosure 1 to this letter. Enclosure 2 provides an evaluation pursuant to 10 CFR 50.92 showing that the proposed changes do not involve significant hazards considerations. Instructions for incorporation of the proposed changes into the Technical Specifications and a markup of the affected pages are provided in Enclosure 3.

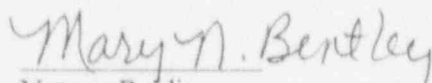
In accordance with 10 CFR 50.91, the designated state official will be sent a copy of this letter and all enclosures.

Mr. C. K. McCoy states that he is a 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: 
C. K. McCoy

Sworn to and subscribed before me this 20th day of May, 1994.


Notary Public

Enclosures:

1. Basis for Proposed Change
2. 10 CFR 50.92 Evaluation
3. Instructions for Incorporation and Revised Pages

cc: (See next page)

LCV-0359

c(w): Georgia Power Company
Mr. J. B. Beasley, Jr.
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

State of Georgia
Mr. J. D. Tanner, Commissioner, Department of Natural Resources

ENCLOSURE 1

VOGTLE ELECTRIC GENERATING PLANT REQUEST TO REVISE TECHNICAL SPECIFICATIONS REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT FLUX HOT CHANNEL FACTOR $F_Q(Z)$

BASIS FOR PROPOSED CHANGE

Proposed Change

The specific changes are:

1. In specification 4.2.2.2.f.1, page 3/4 2-5, replace "2%" with "the appropriate factor specified in the CORE OPERATING LIMITS REPORT (COLR)".
2. In specification 4.2.2.2.f.1, page 3/4 2-5, make typographical correction by replacing "4.2.2.d" with "4.2.2.d."
3. In specification 6.8.1.6, item b, page 6-21, add "Revision 1A" after "WCAP-10216-P-A", and change the date "June 1983" to "February 1994."

Basis

Recently, some Westinghouse-designed cores have experienced increases in the measured value of the heat flux hot channel factor, $F_Q(Z)$, as high as 5 to 6 percent between monthly measurements over certain burnup ranges. Therefore, the assumption that $F_Q(Z)$ will not increase by more than 2 percent over a burnup interval of 31 effective full power days (EFPD) is not conservative. To address this issue, Westinghouse submitted to the NRC Revision 1 of WCAP-10216-P, "Relaxation of Constant Axial Offset Control - F_Q Surveillance Technical Specification," which was approved by the NRC on November 26, 1993. The revised WCAP incorporates minor methodology changes to account for $F_Q(Z)$ increases of greater than 2 percent between monthly surveillances.

During normal operation, $F_Q(Z)$ is shown to be within its limits by performing periodic measurements. Since $F_Q(Z)$ surveillance is required when power has been increased by 20 percent of rated thermal power from the previous surveillance, or at least 31 EFPD, the Technical Specifications (TS) take into account the possibility that $F_Q(Z)$ may increase between surveillances. The TS require that when performing the surveillance, the resulting maximum $F_Q(Z)$ value must be compared to the maximum $F_Q(Z)$ determined from the previous measurement. If the maximum $F_Q(Z)$ has increased since the previous determination of $F_Q(Z)$, the TS allow two options: either the current $F_Q(Z)$ must be increased by an additional 2 percent to account for further increases in $F_Q(Z)$ before the next surveillance, or the surveillance period must be reduced to every 7 EFPD.

ENCLOSURE 1 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT
FLUX HOT CHANNEL FACTOR $F_Q(Z)$

BASIS FOR PROPOSED CHANGE

The $F_Q(Z)$ penalty of 2 percent was based on the Westinghouse assumption that $F_Q(Z)$ would change by no more than 2 percent between monthly flux maps. This assumption was based on calculations for previous core designs that pre-date the low-leakage loading patterns, high amounts of burnable poisons, and 18-month cycles typical of recent cores. Recently, some Westinghouse-designed cores experienced increases in the measured $F_Q(Z)$ as high as 5 to 6 percent between monthly flux maps over certain burnup ranges. Therefore, for those cores that are predicted to have larger increases in $F_Q(Z)$ over certain burnup ranges, a larger penalty will be provided on a cycle-specific basis. The penalties will be calculated using NRC-approved methods.

The burnup-dependent penalty will be included in the cycle-specific Core Operating Limits Report (COLR) as a replacement to the standard value of 2 percent in the current TS. The penalty will be presented in tabular form specifying the values, at specific burnups, that are in excess of 2 percent. At all other burnups, the COLR will indicate that the standard 2-percent penalty will still apply.

The staff has determined that the above-described method for accounting for the additional $F_Q(Z)$ penalty, including the relocation of the penalty to the COLR, is acceptable. The staff's conclusions are documented and have been included in the approved topical report WCAP-10216-P-A, Revision 1A.

ENCLOSURE 2

VOGTLE ELECTRIC GENERATING PLANT REQUEST TO REVISE TECHNICAL SPECIFICATIONS REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT FLUX HOT CHANNEL FACTOR $F_Q(Z)$

10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power Company (GPC) has evaluated the proposed revision to the Technical Specifications (TS) and has determined that operation of the facility in accordance with the proposed amendment would not involve any significant hazards considerations.

The proposed change would revise existing specifications 4.2.2.2.f and 6.8.1.6 so that the factor by which $F_Q(Z)$ would be increased will be specified in the Core Operating Limits Report (COLR). This is based on Revision 1 to WCAP-10216-P that was approved by the NRC on November 26, 1993. The proposed change would incorporate burnup-dependent penalty factors calculated based on NRC approved methodology for core designs that experience monthly increases in measured $F_Q(Z)$ greater than 2.0 percent.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change involves only the manner in which the penalty factors for $F_Q(Z)$ would be specified (i. e., a burnup-dependent factor specified in the Core Operating Limits Report (COLR) versus a constant factor specified in the TS). This is simply used to account for the fact that $F_Q(Z)$ may increase between surveillance intervals. These penalty factors are not assumed in any of the initiating events for the accident analyses. Therefore, the proposed change will have no effect on the probability of any accidents previously evaluated. The penalty factors specified in the COLR will be calculated using NRC-approved methodology and will therefore continue to provide an equivalent level of protection as the existing TS requirement. Therefore, the proposed change will not affect the consequences of any accident previously evaluated.

ENCLOSURE 2 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT
FLUX HOT CHANNEL FACTOR $F_Q(Z)$

10 CFR 50.92 EVALUATION

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change does not involve a physical alteration to the plant (no new or different kind of equipment will be installed) or alter the manner in which the plant would be operated. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

The proposed change will continue to ensure that potential increases in $F_Q(Z)$ over a surveillance interval will be properly accounted for. The penalty factors will be calculated using NRC-approved methodology. Therefore the proposed change will not involve a reduction in margin of safety.

Conclusion

Based on the preceding arguments, Georgia Power Company has determined that the proposed changes to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. Therefore, the proposed changes meet the requirements of 10 CFR 50.92(c) and do not involve a significant hazards consideration.

ENCLOSURE 3

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
REVISION TO SURVEILLANCE REQUIREMENT FOR HEAT
FLUX HOT CHANNEL FACTOR $F_Q(Z)$

INSTRUCTIONS FOR INCORPORATION

The proposed changes to the Vogtle Electric Generating Plant Technical Specifications would be incorporated as follows:

Remove Page

3/4 2-5*

6-21*

Insert Page

3/4 2-5*

6-21*

* Overleaf page containing no change