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Georgia Power
the southern electric system

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0835

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 FOR NRC CONCURRENCE WITH
TECHNICAL SPECIFICATIONS BASES CHANGE

This letter requests NRC concurrence with a change to the Technical Specifications Bases for the Vogtle Electric Generating Plant (VEGP) Units 1 and 2. Georgia Power Company (GPC) has evaluated this revision in accordance with 10 CFR 50.59 and determined that it does not involve an unreviewed safety question. The section being changed is Bases B 3/4.1.1.3 "Moderator Temperature Coefficient."

Section B 3/4.1.1.3 of the Technical Specifications Bases describes how the end of cycle life moderator temperature coefficient (EOL MTC) limits are determined from the moderator density coefficient (MDC). The MDC value is used in safety analyses presented in the FSAR. Due to the difficulty in measuring MDC, the Technical Specifications apply limits to the MTC, which is more easily measured. The method of determining the appropriate MTC values that correspond to the value of MDC used in the analyses is being changed to more accurately reflect plant operating conditions. Since the MDC is not being changed, the margin of safety provided by the Technical Specifications is unaffected. The proposed method is the same as that previously approved by the NRC for other plants.

Enclosure 1 describes the change to be made to the Bases section B 3/4.1.1.3 and provides the basis for the change. Enclosure 2 provides an evaluation that demonstrates this change to the Bases does not involve an unreviewed safety question as defined by 10 CFR 50.59. Enclosure 3 contains the marked-up and typed Technical Specifications Bases change.

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Georgia Power

Georgia Power Company requests a timely review and concurrence with the Bases change to support the EOL MTC measurement scheduled in May 1991.

Sincerely,

C.K.McCoy

C. K. McCoy

CKM/HWM/gmb

Enclosures

xc: Georgia Power Company
Mr. W. B. Shipman
Mr. P. D. Rushton
Mr. R. M. Odom
NORMS

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

ENCLOSURE 1

VOGTLE ELECTRIC GENERATING PLANT
TECHNICAL SPECIFICATIONS BASES CHANGE

BASIS FOR PROPOSED CHANGE

Proposed Change

The proposed Technical Specifications Bases change will revise the method of determining the end of cycle life (EOL) moderator temperature coefficient (MTC) and 300-ppm surveillance requirement (SR) limits specified in the Core Operating Limits Report (COLR), which ensures that the safety analysis value of moderator density coefficient (MDC) is being met. Specifically, the proposed change involves revising the third paragraph of the associated Bases section 3/4.1.1.3. The third paragraph would read as follows:

> These corrections involved: (1) a conversion of the MDC used in the FSAR safety analyses to its equivalent MTC, based on the rate of change of moderator density with temperature at RATED THERMAL POWER conditions, and (2) subtracting from this value the largest differences in MTC observed between End-of-Cycle Life (EOL), all rods withdrawn, RATED THERMAL POWER conditions, and those most adverse conditions of moderator temperature and pressure, rod insertion, axial power skewing, and xenon concentration that can occur in normal operation and lead to a significantly more negative EOL MTC at RATED THERMAL POWER. These corrections transformed the MDC value used in the FSAR safety analyses into the limiting EOL MTC limit. The 300-ppm surveillance MTC limit represents a conservative MTC limit at a core condition of 300 ppm equilibrium boron concentration, and is obtained by making corrections for burnup and soluble boron to the limiting EOL MTC limit.

Basis

The use of 18-month cycles at Vogtle Unit 1 and Vogtle Unit 2 has led to higher core average burnups resulting in more negative end of cycle life moderator temperature coefficients. Recent Vogtle reload designs have approached the 300-ppm boron concentration SR limit specified in the COLR section 2.3 for both Vogtle Units 1 and 2. When the 300-ppm SR MTC limit is exceeded, additional measurements must be performed once per 14 effective full power days (EFPD) during the remainder of the fuel cycle. These additional measurements can become a burden to plant operations because they can require that load swings be performed, causing temperatures to deviate from the programmed reference temperature which perturbs nominal steady-state reactor operation. In addition, repeated MTC measurements require the resources of multiple operations personnel and also require greater water processing for measurements via the boration/dilution method. Also, recent and future reload designs are approaching the EOL MTC limit specified in COLR section 2.3. To accommodate high energy 18-month cycle designs at future power uprated conditions, a revision in the EOL MTC limit is required to preclude placing cycle burnup limits on reload designs.

In order to avoid unnecessary MTC remeasurements upon failure to satisfy the 300-ppm SR MTC limit and preclude placing cycle burnup limits on future reload designs, GPC proposes to revise the current method of determining the MTC limits specified in the COLR. The current method is unrealistic for the operating conditions at which the MTC surveillance is performed. By using more realistic operating conditions as allowed by the Technical Specifications, the COLR EOL MTC and 300-ppm surveillance limits can be revised to provide operational and design margin and reduce the probability of exceeding the 300-ppm surveillance limit. The proposed Bases change describes the revised methodology and incorporates the more realistic operating conditions.

ENCLOSURE 2

VOGTLE ELECTRIC GENERATING PLANT
TECHNICAL SPECIFICATIONS BASES CHANGE

SAFETY EVALUATION

BACKGROUND

The use of 18-month cycles at Vogtle Unit 1 and Vogtle Unit 2 has led to higher core average burnups resulting in more negative end of cycle life moderator temperature coefficients (EOL MTCs). The current Technical Specification 3.1.1.3 states "The moderator temperature coefficient (MTC) shall be within the beginning of cycle life (BOL) and the end of cycle life (EOL) limit specified in the Core Operating Limits Report (COLR)." The corresponding action for exceeding this limiting condition for operation (LCO) is to "be in HOT SHUTDOWN within 12 hours." In order to ensure that the LCO for the EOL MTC is met, the Technical Specifications surveillance requires that the MTC be measured within 7 effective full power days (EFPD) after reaching an equilibrium boron concentration of 300 ppm. This measurement must be compared to the 300-ppm surveillance limit value specified in COLR section 2.3 at the all rods withdrawn, rated thermal power condition. If the measurement indicates that the MTC is more negative than the 300-ppm surveillance limit, the MTC must be remeasured once per 14 EFPD during the remainder of the fuel cycle (see reference 1).

Recent Vogtle reload designs have approached the 300-ppm surveillance requirement (SR) limit in the COLR. The current Vogtle Unit 1 Cycle 3 and Vogtle Unit 2 Cycle 2 designs reflect predicted MTC values at 300-ppm boron to be more negative than the 300-ppm surveillance limit. When the 300-ppm surveillance limit is exceeded, additional measurements must be performed once per 14 EFPD during the remainder of the fuel cycle. These additional measurements are undesirable because they can require that load swings be performed, causing temperatures to deviate from the programmed reference temperature which perturbs nominal steady-state reactor operation. In addition, repeated MTC measurements require the resources of multiple operations personnel and also require greater water processing for measurements via the boration/dilution method.

In order to avoid unnecessary EOL MTC remeasurements below 300-ppm boron after exceeding the 300-ppm SR limit, Georgia Power Company proposes to revise the current method for determining the EOL MTC and 300-ppm surveillance limits specified in the COLR. The revised method and COLR MTC limit changes do not affect the maximum moderator feedback safety analysis assumption of a constant moderator density coefficient (MDC) of 0.43 delta-k/gm/cc, which corresponds to an MTC value of -56 pcm/^{o}F. The revised method for determining the COLR MTC limits will result in a change to the Technical Specifications Bases section B 3/4.1.1.3. The change to the Technical Specifications Bases does not affect the current safety analysis assumption of MDC nor does it affect the conclusions found in the Vogtle FSAR safety analyses.

REFERENCES

1. Vogtle Electric Generating Plant Unit 1 and Unit 2 Technical Specifications, Appendix A to License Nos. NPF-68 and NPF-81.

2. "Vogtle Electric Generating Plant Unit 1 and Unit 2 Final Safety Analysis Report Update," Docket Nos. 50-424 and 50-425, as amended through March 28, 1990.

3. "Safety Evaluation Supporting a More Negative EOL Moderator Temperature Coefficient Technical Specification for the Vogtle Electric Generating Plant, Units 1 and 2," Westinghouse Electric Corporation, January 1990.

4. WCAP 9272-P-A, "Westinghouse Reload Safety Methodology," July 1985.

5. Vogtle Electric Generating Plant Unit 1 and Unit 2 Core Operating Limits Report, Revision 0 to Unit 1 Cycle 3 and Revision 0 to Unit 2 Cycle 2.

BASES

Non-LOCA Analyses Discussion

To support a revision to the EOL MTC and 300-ppm SR limits specified in the VEGP Unit 1 and Unit 2 COLR (reference 5), Westinghouse has performed an evaluation (reference 3) of the impact of a revision to the current method for determining the EOL MTC and 300-ppm limits on the FSAR analyses (reference 2). The revised method will result in a change to the Technical Specifications (reference 1) Bases section B 3/4.1.1.3.

In the Vogtle safety analyses, the MTC is assumed to be at its most limiting conditions appropriate for each transient. The most negative MTC limiting value is based on EOL conditions; no boron, full power, with all rods inserted (ARI). Although the hot full power (HFP) ARI configuration is not allowed by the Technical Specifications, the assumption is made to conservatively bound all possible configurations leading to a most negative MTC value. The design basis safety analyses affected by the most negative MTC use a constant moderator density coefficient (MDC) input assumption to bound the MTC at its worst set of initial conditions. This MDC value then forms the licensing basis in the Vogtle FSAR. The EOL Vogtle safety analyses assume a constant MDC of 0.43 delta-k/gm/cc, where applicable, to maximize the positive moderator reactivity feedback insertion for cooldown transients. The transients which assume this value for EOL MDC are listed in table 1. For Vogtle, this EOL MDC input assumption corresponds to a -56 pcm/^{o}F MTC with the core at HFP, nominal temperature and pressure, and all rods in conditions. The main steam line break analysis does not use the Technical Specifications value for most negative MTC. Rather, a reactivity insertion figure versus RCS temperature is assumed which bounds the EOL MDC. The power transients for main steam line break are reviewed on a cycle-specific basis using the methodology given in reference 4.

The COLR and Technical Specifications EOL MTC limit corresponds to an EOL, all rods out (ARO), HFP configuration. This limit is related to the non-LOCA analysis assumption via calculational corrections for rod position (ARI vs. ARO) and the rate of change of moderator density for changes in moderator temperature at full power. This limitation on MTC ensures that the measured value remains within the bounding condition assumed in the non-LOCA analysis.

The COLR and Technical Specifications 300-ppm surveillance limit is related to the EOL MTC Technical Specifications limit via calculational corrections for burnup and boron concentration. Measurement of an MTC less negative than the 300-ppm surveillance limit ensures that the EOL MTC limit will not be exceeded. Both the EOL MTC and 300-ppm surveillance values are specified in the COLR section 2.3 for both Vogtle Units 1 and 2.

The current method used to determine the "delta MTC" between the safety analysis value of -56 pcm/°F MTC and the COLR EOL MTC limit is overly conservative and unrealistic from a core operational standpoint. The "delta MTC" between a HFP ARO MTC value and a HFP ARI MTC value was determined and subtracted from the -56 pcm/°F non-LOCA analysis value. The current "delta MTC" (-16 pcm/°F) is overly conservative and therefore revisions to the EOL MTC and 300-ppm surveillance limits can be made by basing the "delta MTC" on more realistic operating conditions as allowed by the Technical Specifications. The major contributor to this overly conservative and unrealistic "delta MTC" is the assumption of HFP ARI conditions which are not allowed by the Technical Specifications. Revising this core operating assumption for a more realistic HFP positioning of control rods near the Technical Specifications rod insertion limits (RIL) would reduce the current "delta MTC" to about half its value. Therefore, a more realistic "delta MTC" difference between the EOL MTC value and the conservative safety analysis value (HFP ARI conditions) can be used to revise the current EOL MTC and 300-ppm surveillance limits specified in the COLR and provide much needed design and operational margin for the MTC core parameter.

As an alternative to the present ARI-to-ARO LCO conversion method, a new LCO conversion method is proposed that will define the most negative feasible MTC value. This most negative feasible MTC value will correspond to the most limiting operating conditions allowed by the Technical Specifications. Consideration is given to parameters which are variable under normal operation and affect MTC (normal operational transient effects). Specifically, these parameters are:

RCS Average Temperature and Pressure
RCCA Insertion
Axial Flux (Power) Shapes
Transient Xenon Concentrations.

Based on Vogtle-specific MTC sensitivities to the above parameters, a maximum "delta MTC" is defined as the difference from the ARO HFP nominal value to the most negative feasible MTC value. This "delta MTC" is then subtracted from the -56 pcm/°F non-LOCA analysis value. This alternative method in obtaining an LCO limit is based on core operating conditions, as allowed by Technical Specifications, which affect the MTC value. The most negative feasible MTC alternative method is applied in the same way the current ARI-to-ARO conversion is applied. The alternative method also accounts for more realistic operating conditions at HFP than the more restrictive current ARI-to-ARO method applied at HFP.

Given the discussion above, the most negative feasible MTC approach determines the conditions for which a core will exhibit the most negative MTC value that is consistent with normal operation allowed by the Technical Specifications. Thus, it is apparent that the non-LOCA analysis assumption for EOL MTC represents a conservative initial condition assumption with respect to the value for the most negative feasible MTC. However, changes to the parameters cited above could be much more severe during a transient than the changes allowed under normal operation. This could potentially create a situation in some transients where the non-LOCA analysis assumption no longer bounds the predicted moderator reactivity insertion. Therefore, the "transient effects" on MTC must be considered.

The "transient effects" on MTC due to changes in the operational parameters identified above have been evaluated with respect to those non-LOCA safety analyses listed in table 1 as presented in the FSAR. As demonstrated in the discussions below, the most adverse conditions seen in these events will not result in a reactivity insertion which would invalidate the conclusions of these FSAR analyses. Therefore, the 0.43 delta-k/gm/cc safety analysis assumption, used as the basis for determining the EOL MTC Technical Specifications limit with the most negative feasible MTC method, will not change.

<u>Temperature and Pressure Effects</u>: Of all the transient effects discussed here, MTC is most sensitive to the changes in moderator temperature. An increase in RCS temperature holding density constant leads to a hardened neutron spectrum, an increase in resonance absorption, and a larger fast-to-thermal flux ratio, all of which make the MTC more negative. Therefore, to maximize the "delta MTC" factor, an RCS temperature of 595.7°F was assumed. This temperature bounds both the LOPAR and the VANTAGE-5 fuel designs including uprated power conditions, and includes instrument uncertainty. It is a conservative value to assume with respect to the Technical Specifications limit (the current value is 591°F and the future VANTAGE-5 value is 592.5°F).

MTC is only slightly sensitive to the changes in pressure. A decreasing RCS pressure will result in a decrease in moderator density, which means less moderation and a more negative MTC. The assumed HFP RCS pressure of 2185 psig bounds the Technical Specifications limit (current value of 2224 psig and future VANTAGE-5 value of 2199 psig including instrumentation uncertainties).

<u>RCCA Insertion Effects</u>: RCCA insertion results in a more negative MTC due to changes in water density, neutron mean free path, spectral hardening, resonance capture, core leakage, and power and xenon redistribution effects. The effects of power and xenon redistributions will be separated from the other effects and discussed in later sections. At HFP, a lead control bank (Bank D) insertion was assumed that would bound the RIL as defined by the Technical Specifications (161 steps withdrawn) plus a small additional Bank D insertion for rod misalignment. Additionally, the RILs used assume the recently approved Technical Specification governing the ARO RCCA repositioning of 222 steps withdrawn. This assumption of

using RILs at HFP for the "delta MTC" factor is conservative. Deeper RCCA insertion below that defined by the Technical Specifications would require a power and RCS temperature reduction. The decrease in RCS temperature and power level would make the MTC less negative and entirely offset the negative RCCA effect of rod insertion on MTC at less than HFP conditions. For this reason, the maximum assumed RCCA deviation from the nominal position is the RILs allowed by the Technical Specifications at HFP plus a small additional insertion for rod misalignment.

Axial Flux (Power) Redistribution Effects: A more negative axial flux difference (AFD) serves to make the MTC more negative. This is true primarily as a result of the influence which the axial flux (power) shape has on the rate at which the moderator is heated as it moves up the core. The change in shape of the flux or redistribution is not as important as the balance of the flux shape or AFD. The current Technical Specifications allow core operations with a target AFD band of +3% to -12% about a HFP target value of AFD. Current and future Vogtle reload designs may produce target AFD values as negative as -5% AFD. Combined with the current Technical Specifications allowance on AFD target band, the AFD may be as negative as -17% AFD. A conservative value of negative AFD was chosen to conservatively bound the proposed VANTAGE-5 HFP target band of +10/-20% AFD, such that a maximum "delta MTC" factor due to axial flux redistribution can be determined.

Xenon Concentration Effects: The MTC becomes more negative with a reduced xenon concentration. Xenon is the most significant transient fission product in terms of effects on core flux distribution and core reactivity. The effects of other fission product concentration effects, namely samarium, have a negligible effect on MTC because of the longer decay times and production of precursor fission products when compared to those of xenon. Since axial xenon redistributions directly affect the axial flux difference, this xenon effect on MTC is included in the axial flux redistributions. The only other xenon effect on MTC to be discussed is that of xenon concentration. Calculations were performed on low leakage loading patterns similar to Vogtle future designs. The results showed that the MTC became more negative with reduced xenon concentrations; the most negative MTC occurred with no xenon in the core at HFP ARO conditions. The xenon effect on "delta MTC" was then conservatively evaluated based on a change from HFP ARO equilibrium xenon to no xenon in the core.

Non-LOCA Analyses Conclusions

The four transient effects discussed above (i.e., temperature and pressure, RCCA insertion, axial flux redistributions, and xenon concentration) were used in determining the "delta MTC" factor associated with more realistic core operating conditions such that the current COLR EOL MTC and 300-ppm surveillance limits could be revised. The overall "delta MTC" factor was conservatively determined and then further conservatisms added to revise the current "delta MTC" value from -16 pcm/^{o}F to approximately -8 pcm/^{o}F. Since the safety analysis non-LOCA assumption was not changed (-56 pcm/^{o}F), the FSAR conclusions remain valid. The -8 pcm/^{o}F "delta MTC" is then subtracted from the safety analysis limit. This revised method of incorporating more realistic operating conditions as allowed by the Technical Specifications will allow for revisions to the EOL MTC and 300-ppm surveillance limits in the COLR. Since the EOL MTC LCO value is for steady-state HFP ARO core operating conditions, the transient operational effects allowed for by the Technical Specifications are bounded by the "delta MTC" factor such that the safety analysis limit of -56 pcm/°F is never exceeded.

LOCA Analyses

The proposed method change has been reviewed with respect to the potential effect that may be expected in the analyses or conclusions of the ECCS (LOCA) analyses of record. For ECCS analyses, the only significance of a change in MTC would be to the extent that it may affect the decay heat generated following the LOCA event. Reactivity assumptions in the large-break and small-break LOCA analyses are such that a maximum decay heat rate (according to the requirements of Appendix K) bounds any possible change to the decay heat rate that could be caused by a change in MTC. Also, changes in MTC effects are of no consequence to analyses for LOCA hydraulic forces, rod ejection mass releases, post-LOCA long-term core cooling, and hot leg switchover time. Therefore, any changes to the MTC would show no effect to the large-break and small-break LOCA analyses of record.

Containment Analysis

The Vogtle containment analysis for peak pressure and temperature is not affected by the proposed method change since there are no changes to the steam line break or LOCA mass and energy releases as a result of changes in MTC.

Steam Generator Tube Rupture Analysis

The Vogtle steam generator tube rupture (SGTR) analysis assumes a least negative (or positive) MTC because a least negative MTC results in an earlier reactor trip. An earlier trip is a penalty to the steam generator overfill and offsite dose analysis. Thus, a more negative MTC is a benefit to the SGTR analysis, and the proposed method change does not affect the SGTR analysis.

Change to Surveillance Requirement

There is no basis in the safety analyses for the 300-ppm surveillance limit. This limit merely provides early indication that the EOL MTC limit is being approached. The 300-ppm SR MTC measurement is performed near 300 ppm boron. The EOL MTC LCO limit is at 0 ppm boron. The difference in the boron concentrations is the major contributor to the change in MTC from the 300-ppm surveillance limit to the more negative EOL MTC limit. The core burnup is a minor contributor to the MTC change. Increasing core burnup and reducing boron makes the MTC more negative. The 300-ppm surveillance limit is chosen to conservatively provide an early indication that the EOL MTC LCO limit is being approached. Since the 300-ppm surveillance limit is less negative than the safety analyses assumption of -56 pcm/^{o}F, the FSAR conclusions continue to remain valid.

Implementation

Because the moderator temperature and density coefficients have a strong influence on non-LOCA analysis results and can be affected by a reload, the conservative nature of the most negative feasible "delta MTC" will be confirmed on a cycle-specific basis using the methodology discussed in Reference 4. This includes verification that the transient effects and part power considerations do not invalidate the conservative nature of the MDC characteristic modeled in the non-LOCA analyses. This process ensures the ability to verify that the applicable safety limits are met for each reload design. The revised method for determining a "delta MTC" and subsequently the EOL MTC and 300-ppm surveillance limits will result in a revision to the Technical Specifications Bases (enclosure 3).

CONCLUSIONS

The evaluation of the revised method for determining the EOL MTC and 300-ppm surveillance limits and the proposed change to the Technical Specifications Bases section B 3/4.1.1.3 shows that the current VEGP FSAR safety analysis value of the MDC (corresponding to a -56 pcm/^{o}F MTC value) is not affected by these changes.

In addition, the main steam line break analysis, the large-break and small-break LOCA analyses, containment analysis, and the steam generator tube rupture analysis are not impacted. Thus, the results of the FSAR remain valid and no decrease in safety margin occurs.

Based on the above discussion, it can be concluded that the change to the Technical Specifications Bases (B 3/4.1.1.3), which revises the method for determining the EOL MTC and 300-ppm surveillance limits, can be summarized as follows:

1. The probability of occurrence of an accident previously evaluated in the safety analysis report will not increase. No new performance requirements are being imposed on any system or component such that any design criteria will be exceeded. There are no physical changes to the plant, and no new failure mechanisms have been introduced. The current MDC safety analysis assumption has been confirmed to remain bounding for the Technical Specifications Bases change. Therefore, the probability of occurrence of an accident previously evaluated in the FSAR has not increased.

2. The consequences of an accident previously evaluated in the safety analysis report will not increase. The dose predictions presented in the FSAR are not sensitive to the MTC. Additionally, since LOCA and steam line break mass and energy

releases are not increased as a result of the Technical Specifications Bases change, the dose predictions presented in the FSAR remain bounding. Therefore, the consequences of an accident previously evaluated in the FSAR have not increased.

3. The possibility of an accident of a different type than any previously evaluated in the safety analysis report will not be created. All original design and performance criteria continue to be met, and no new failure modes have been defined for any system, component, or piece of equipment as a result of the Technical Specifications Bases change. There are no physical changes to the plant, and no new single failure mechanisms have been introduced. Therefore, the possibility of an accident of a different type than any previously evaluated in the FSAR has not been identified or created.

4. The probability of occurrence of a malfunction of equipment important to safety previously evaluated in the safety analysis report will not increase. No new performance requirements are being imposed on any system or component such that any design criteria will be exceeded. There are no physical changes to the plant, and no new failure mechanisms have been introduced. The current MDC safety analysis assumption has been confirmed to remain bounding for the proposed Technical Specifications Bases change. No malfunctions of equipment other than those currently assumed in the FSAR are expected as a result of the revised method for determining the EOL MTC and 300-ppm surveillance limits. Therefore, the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the FSAR has not increased.

5. The consequences of a malfunction of equipment important to safety previously evaluated in the safety analysis report will not increase. The dose predictions presented in the FSAR are not sensitive to the MTC. Additionally, since LOCA and steam line break mass and energy releases are not increased as a result of the Technical Specifications Bases change, the dose predictions presented in the FSAR remain bounding. Also, no malfunctions of equipment other than those currently assumed in the FSAR are expected as a result of the revised method for determining the EOL MTC and 300-ppm surveillance limits. Therefore, the consequences of a malfunction of equipment important to safety previously evaluated in the FSAR have not increased.

6. The possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the safety analysis report will not be created. All original design and performance criteria continue to be met, and no new failure modes have been defined for any system, component, or piece of equipment as a result of the Technical Specifications Bases

change. There are no physical changes to the plant, and no new single failure mechanisms have been introduced. Therefore, the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the FSAR has not been identified or created.

7. The margin of safety as defined in the basis for any Technical Specification will not be reduced. The evaluation of the revised method for determining the EOL MTC and the 300-ppm surveillance limits referenced in the Technical Specifications Bases has taken into consideration the normal core operating conditions allowed by the Technical Specifications, including normal expected perturbations in measured Technical Specifications parameters and instrumentation uncertainties. The Technical Specifications Bases section B 3/4.1.1.3 proposed revision presents the revised method in determining the EOL MTC and 300-ppm surveillance limits based on more realistic operating conditions as allowed by the Technical Specifications and the current safety analysis MDC value. The EOL MTC and 300-ppm surveillance limits based on the revised method are still bounded by the current Vogtle safety analyses of record input assumption on MDC which corresponds to a -56 pcm/°F MTC. The current Vogtle FSAR safety analysis conclusions remain valid. Therefore, the margin of safety as defined in the bases to the Vogtle Technical Specifications is not reduced.

Therefore, the proposed change to the Technical Specifications Bases that revises the method for determining the EOL MTC and the 300-ppm surveillance limits specified in the COLR does not involve an unreviewed safety question. The proposed Technical Specifications Bases change is presented in enclosure 3.

TABLE 1

Vogtle FSAR Chapter 15 Events
Which Are Evaluated Using a Constant 0.43 Delta-k/gm/cc
Moderator Density Coefficient

FSAR Section	Event
15.1.1	Feedwater System Malfunctions That Result in a Decrease in Feedwater Temperature
15.1.3	Excessive Increase in Secondary Steam Flow
15.2.2	Loss of External Electrical Load
15.2.3	Turbine Trip
15.4.2	Uncontrolled RCCA Bank Withdrawal at Power
15.4.4	Startup of an Inactive Reactor Coolant Pump at an Incorrect Temperature
15.4.9	Steam Line Break Coincidental with Uncontrolled RCCA Bank Withdrawal at Power