UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OCT 0 4 1988

TO ALL POWER REACTOR LICENSEES AND APPLICANTS

SUBJECT: REMOVAL OF CYCLE-SPECIFIC PARAMETER LIMITS FROM TECHNICAL SPECIFICATIONS (GENERIC LETTER 88-16)

License amendments are generally required each fuel cycle to update the values of cycle-specific parameter limits in Technical Specifications (TS). The processing of changes to TS that are developed using an NRC-approved methodology is an unnecessary burden on licensee and NRC resources. A lead-plant proposal for an alternative that eliminates the need for a license amendment to update the cycle-specific parameter limits each fuel cycle was submitted for the Oconee plant with the endorsement of the Babcock and Wilcox Owners Group. On the basis of the NRC review and approval of that proposal, the enclosed guidance for the preparation of a license amendment request for this alternative was developed by the NRC staff.

Generally, the methodology for determining cycle-specific parameter limits is documented in an NRC-approved Topical Report or in a plant-specific submittal. As a consequence, the NRC review of proposed changes to TS for these limits is primarily limited to confirmation that the updated limits are calculated using an NRC-approved methodology and consistent with all applicable limits of the safety analysis. These changes also allow the NRC staff to trend the values of these limits relative to past experience. This alternative allows continued trending of these limits without the necessity of prior NRC review and approval.

Licensees and applicants are encouraged to propose changes to TS that are consistent with the guidance provided in the enclosure. Conforming amendments will be expeditiously reviewed by the NRC Project Manager for the facility. Proposed amendments that deviate from this guidance will require a longer, more detailed review. Please contact the Project Manager if you have questions on this matter.

Sincerely,

Dennis M. Crutchfield

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Acting Associate Director for Projects
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GUIDANCE FOR TECHNICAL SPECIFICATION CHANGES FOR CYCLE-SPECIFIC PARAMETER LIMITS

INTRODUCTION

A number of Technical Specifications (TS) address limits associated with reactor physics parameters that generally change with each reload core, requiring the processing of changes to TS to update these limits each fuel cycle. If these limits are developed using an NRC-approved methodology, the license amendment process is an unnecessary burden on the licensee and the NRC. An alternative to including the values of these cycle-specific parameters in individual specifications is provided and is responsive to industry and NRC efforts on improvements in TS.

This enclosure provides guidance for the preparation of a license amendment request to modify TS that have cycle-specific parameter limits. An acceptable alternative to specifying the values of cycle-specific parameter limits in TS was developed on the basis of the review and approval of a lead-plant proposal for this change to the TS for the Oconee units. The implementation of this alternative will result in a resource savings for the licensees and the NRC by eliminating the majority of license amendment requests on changes in values of cycle-specific parameters in TS.

DISCUSSION

This alternative consists of three separate actions to modify the plant's TS: (1) the addition of the definition of a named formal report that includes the values of cycle-specific parameter limits that have been established using an NRC-approved methodology and consistent with all applicable limits of the safety analysis, (2) the addition of an administrative reporting requirement to submit the formal report on cycle-specific parameter limits to the Commission for information, and (3) the modification of individual TS to note that cycle-specific parameters shall be maintained within the limits provided in the defined formal report.

In the evaluation of this alternative, the NRC staff concluded that it is essential to safety that the plant is operated within the bounds of cycle-specific parameter limits and that a requirement to maintain the plant within the appropriate bounds must be retained in the TS. However, the specific values of these limits may be modified by licensees, without affecting nuclear safety, provided that these changes are determined using an NRC-approved methodology and consistent with all applicable limits of the plant safety analysis that are addressed in the Final Safety Analysis Report (FSAR). Additionally, it was concluded that a formal report should be submitted to NRC with the values of these limits. This will allow continued trending of this information, even though prior NRC approval of the changes to these limits would not be required.

The current method of controlling reactor physics parameters to assure conformance to 10 CFR 50.36 is to specify the specific value(s) determined to be within specified acceptance criteria (usually the limits of the safety analyses) using an approved calculation methodology. The alternative contained in this guidance controls the values of cycle-specific parameters and assures conformance to 10 CFR 50.36, which calls for specifying the lowest functional

performance levels acceptable for continued safe operation, by specifying the calculation methodology and acceptance criteria. This permits operation at any specific value determined by the licensee, using the specified methodology, to be within the acceptance criteria. The Core Operating Limits Report will document the specific values of parameter limits resulting from licensee's calculations including any mid-cycle revisions to such parameter values.

The following items show the changes to the TS for this alternative. A defined formal report, "Core Operating Limits Report" (the name used as an example for the title for this report), shall be added to the Definitions section of the TS, as follows.

> [CORE] OPERATING LIMITS REPORT
> 1.XX The [CORE] OPERATING LIMITS REPORT is the unit-specific document that provides [core] operating limits for the current operating reload cycle. These cycle-specific [core] operating limits shall be determined for each reload cycle in accordance with Specification 6.9.X. Plant operation within these operating limits is addressed in individual specifications.

A new administrative reporting requirement shall be added to existing reporting requirements, as follows.

> [CORE] OPERATING LIMITS REPORT
> [6.9.X] [Core] operating limits shall be established and documented in the [CORE] OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle. (If desired, the individual specifications that address [core] operating limits may be referenced.) The analytical methods used to determine the [core] operating limits shall be those previously reviewed and approved by NRC in [identify the Topical Report(s) by number, title, and date, or identify the staff's safety evaluation report for a plant-specific methodology by NRC letter and date]. The [core] operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The [CORE] OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

Individual specifications shall be revised to state that the values of cycle-specific parameters shall be maintained within the limits identified in the defined formal report. Typical modifications for individual specifications are as follows.

> The regulating rods shall be positioned <u>within the acceptable operating range for regulating rod position provided in the [CORE] OPERATING LIMITS REPORT</u>. (Used where the operating limit covers a range of acceptable operation, typically defined by a curve.)
>
> The [cycle-specific parameter] shall be <u>within the limit provided in the [CORE] OPERATING LIMITS REPORT.</u> (Used where the operating limit has a single point value.)

SUMMARY

The alternative to including the values of cycle-specific parameter limits in individual specifications includes (1) the addition of a new defined term for the formal report that provides the cycle-specific parameter limits, (2) the addition of its associated reporting requirement to the Administrative Controls section of the TS, and (3) the modification of individual specifications to replace these limits with a reference to the defined formal report for the values of these limits. With this alternative, reload license amendments for the sole purpose of updating cycle-specific parameter limits will be unnecessary.

Enclosure

LIST OF RECENTLY ISSUED GENERIC LETTERS

Generic Letter No.	Subject	Date of Issuance	Issued To
88-15	ELECTRIC POWER SYSTEMS - INADEQUATE CONTROL OVER DESIGN PROCESSES	09/12/88	ALL POWER REACTOR LICENSEES AND APPLICANTS
88-14	INSTRUMENT AIR SUPPLY SYSTEM PROBLEMS AFFECTING SAFETY-RELATED EQUIPMENT	08/08/88	ALL HOLDERS OF OPERATING LICENSES OR CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTORS
88-13	OPERATOR LICENSING EXAMINATIONS	08/08/88	ALL POWER REACTOR LICENSEES AND APPLICANTS FOR AN OPERATING LICENSE.
88-12	REMOVAL OF FIRE PROTECTION REQUIREMENTS FROM TECHNICAL SPECIFICATIONS	08/02/88	ALL POWER REACTOR LICENSEES AND APPLICANTS
88-11	NRC POSITION ON RADIATION EMBRITTLEMENT OF REACTOR VESSEL MATERIALS AND ITS IMPACT ON PLANT OPERATIONS	07/12/88	ALL LICENSEES OF OPERATING REACTORS AND HOLDERS OF CONSTRUCTION PERMITS
88-10	PURCHASE OF GSA APPROVED SECURITY CONTAINERS	07/01/88	ALL POWER REACTOR LICENSEES AND HOLDERS OF PART 95 APPROVALS
88-09	PILOT TESTING OF FUNDAMENTALS EXAMINATION	05/17/88	ALL LICENSEES OF ALL BOILING WATER REACTORS AND APPLICANTS FOR A BOILING WATER REACTOR OPERATOR'S LICENSE UNDER 10 CFR PART 55
88-08	MAIL SENT OR DELIVERED TO THE OFFICE OF NUCLEAR REACTOR REGULATION	05/03/88	ALL LICENSEES FOR POWER AND NON-POWER REACTORS AND HOLDERS OF CONSTRUCTION PERMITS FOR NUCLEAR POWER REACTORS
88-07	MODIFIED ENFORCEMENT POLICY RELATING TO 10 CFR 50.49, "ENVIRONMENTAL QUALIFICATION OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY FOR NUCLEAR POWER PLANTS"	04/07/88	ALL POWER REACTOR LICENSEES AND APPLICANTS