



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

OCT 04 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
Dennis M. Crutchfield
Acting Associate Director for Projects
Office of Nuclear Reactor Regulation

Enclosure:
As stated

~~88-10050058~~
591.

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 within the acceptable operating range for regulating rod position provided in the [CORE] OPERATING LIMITS REPORT. (Used where the operating limit covers a range of acceptable operation, typically defined by a curve.)

The [cycle-specific parameter] shall be within the limit provided in the [CORE] OPERATING LIMITS REPORT. (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.

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 EMBRITTLMENT 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



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

Enclosure 2

MEMORANDUM FOR: Sholly Coordinator

FROM: [], Director
PWR, Project Directorate No.
Division of PWR Licensing-A

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE -
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT
TO FACILITY OPERATING LICENSE AND PROPOSED NO
SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND
OPPORTUNITY FOR A HEARING

[Utility Name], Docket No. STN 50-[], [Plant Name, Unit(s) #]

[County], [State]

Date of application for amendment:

Description of amendment request: The proposed amendment would revise Technical Specifications 3/4.____, 3/4.____, and 3/4.____ of Appendix A of that license to replace the values of cycle-specific parameter limits with a reference to the [Core] Operating Limits Report, which contains the values of those limits. In addition, the [Core] Operating Limits Report has been included in the Definitions Section of the Technical Specifications (TS) to note that it is the unit-specific document that provides these limits for the current operating reload cycle. Furthermore, the definition notes that the values of these cycle-specific parameter limits are to be determined in accordance with the Specification 6.9.__. This Specification requires that the [Core] Operating Limits be determined for each reload cycle in accordance with the referenced NRC-approved methodology for these limits and consistent with the applicable limits of the safety analysis. Finally, this report and any mid-cycle revisions shall be provided to the NRC upon issuance. Generic Letter 88-16, dated October 4, 1988, from the NRC provided guidance to licensees on requests for removal of the values of cycle-specific parameter limits from TS. The licensee's proposed amendment is in response to this Generic Letter.

Basis for proposed no significant hazards consideration determination: The staff has evaluated this proposed amendment and determined that it involves no significant hazards considerations. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or
2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or
3. Involve a significant reduction in a margin of safety.

The proposed revision to the License Condition is in accordance with the guidance provided in Generic Letter 88-16 for licensees requesting removal of the values of cycle-specific parameter limits from TS. The establishment of these limits in accordance to an NRC-approved methodology and the incorporation of these limits into the [Core] Operating Limits Report will ensure that proper steps have been taken to establish the values of these limits. Furthermore, the submittal of the [Core] Operating Limits Report will allow the staff to continue to trend the values of these limits without the need for prior staff approval of these limits and without introduction of an unreviewed safety question. The revised specifications with the removal of the values of cycle-specific parameter limits and that addition of the referenced report for these limits does not create the possibility of a new or different kind of accident for those previously evaluated. They also don't involve a significant reduction in the margin of safety since the change does not alter the methods used to establish these limits.

Consequently, the proposed change on the removal of the values of cycle-specific limits do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Because the values of cycle-specific parameter limits will continue to be determined in accordance with an NRC-approved methodology and consistent with the applicable limits of the safety analysis, these changes are administrative in nature and do not impact the operation of the facility in a manner that involves significant hazards considerations.

The proposed amendment does not alter the requirement that the plant be operated within the limits for cycle-specific parameters nor the required remedial actions that must be taken when these limits are not met. While it is recognized that such requirements are essential to plant safety, the values of limits can be determined in accordance with NRC-approved methods without affecting nuclear safety. With the removal of the values of these limits from the Technical Specifications, they have been incorporated into the [Core] Operating Limits Report that is submitted to the Commission. Hence, appropriate measures exist to control the values of these limits. These changes are administrative in nature and do not impact the operation of the facility in a manner that involves significant hazards considerations.

Based on the preceding assessment, the staff believes this proposed amendment involves no significant hazards considerations.

Local Public Document Room location:

Attorney for Licensee:

NRC Project Director:

_____, Director
PWR Project Directorate No. ____
Division of PWR Licensing-A ____

(Document Name "CYCLE SHOLLY" on INRC1112, Contact Pat Coates, X21183, for a copy)

MODEL SAFETY EVALUATION REPORT (SER)

Underscored blank spaces are to be completed on the basis of the applicable facility information. The information in brackets should be used, as applicable, on a plant-specific basis.

SAFETY EVALUATION REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION
 RELATED TO AMENDMENT NO. ___ TO FACILITY OPERATING LICENSE NFP-___
 AND AMENDMENT NO. ___ TO FACILITY OPERATING LICENSE NFP-___
 [UTILITY NAME]
 DOCKET NOS. 50-___ AND 50-___
 [PLANT NAME], UNITS 1 AND 2

INTRODUCTION

By letter dated _____, 1988, [utility name] (the licensee) proposed changes to the Technical Specifications (TS) for [plant name] Units 1 and 2. The proposed changes would modify specifications having cycle-specific parameter limits by replacing the values of those limits with a reference to the [named plant-specific report] for the values of those limits. The proposed changes also include the addition of the [named report] to the Definitions section and to the reporting requirements of the Administrative Controls section of TS. Guidance on the proposed changes was developed by NRC on the basis of the review of a lead-plant proposal submitted on the Oconee plant docket that was endorsed by the Babcock and Wilcox Owners Group. This guidance was provided to all power reactor licensees and applicants by Generic Letter 88-16, dated October 4, 1988.

EVALUATION

The licensee's proposed changes to the TS are in accordance with the guidance provided by Generic Letter 88-16 and are addressed below.

- (1) The Definitions section of the TS was modified to include a definition of the [named report] that requires cycle/reload-specific parameter limits to be established on a unit-specific basis in accordance with an NRC-approved methodology that maintains the limits of the safety analysis. The definition notes that plant operation within these limits is addressed by individual specifications.
- (2) The following specifications were revised to replace the values of cycle-specific parameter limits with a reference to the [named report] that provides these limits.

[Provide list of specifications by number and title]

- (3) Specification [number], [title], was added to the reporting requirements of the Administrative Controls section of the TS. This specification requires that the [named report] be submitted, upon issuance, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector. The report provides the values of cycle-specific parameter limits that are applicable for the current fuel cycle. Furthermore, this specification requires that the values of these limits be established using the NRC-approved methodology in [Topical Report or NRC letter

approving a plant-specific methodology submittal] and consistent with all applicable limits of the safety analysis. Finally, the specification requires that all changes in cycle-specific parameter limits be documented in the [named report] before each reload cycle or remaining part of a reload cycle and submitted upon issuance to NRC, prior to operation with the new parameter limits.

On the basis of the review of the above items, the NRC staff concludes that the licensee provided an acceptable response to those items as addressed in the NRC guidance in Generic Letter 88-16 on modifying cycle-specific parameter limits in TS. Because plant operation continues to be limited in accordance with the values of cycle-specific parameter limits that are established using an NRC-approved methodology, the NRC staff concludes that this change is administrative in nature and there is no impact on plant safety as a consequence. Accordingly, the staff finds the proposed changes acceptable.

ENVIRONMENTAL CONSIDERATION

These amendments involve changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

CONCLUSION

The Commission made proposed determinations that the amendments involve no significant-hazards consideration that were published in the Federal Register (53 FR _____) on _____, 1988. The Commission consulted with the State of _____. No public comments were received, and the State of _____ did not have any comments.

On the basis of the considerations discussed above, the NRC staff concludes that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Daniel B. Fieno, SRXB/DEST
Thomas G. Dunning, OTSB/DOEA
_____, PD___/DPR___

Dated: _____, 1988

(Document Name "CYCLE SER" on INRC1112, Contact Pat Coates, X21183, for a copy)