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Waterford 3

W3F1-2000-0163
A4.05
PR

November 16, 2000

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

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Change No. 1 to the Core Operating
Limits Report for Cycle 11

Gentlemen:

Waterford 3 Technical Specification 6.9.1.11.3 requires submittal of the Core Operating Limits Report (COLR) for each reload cycle, including any mid-cycle revisions or supplements. Please find attached Change No. 1 to the Waterford 3 Cycle 11 COLR, revision 0. This change involves the following:

- During RF10, a reduction in total pressurizer heater capacity was identified due to the removal of one heater element and the degradation of three other heaters. Review of the safety analyses for potential impact determined that it was necessary to implement operating restrictions for the beginning part of Cycle 11 to maintain appropriate acceptance criteria. COLR Section 3.1.3.7, Figure 5, has been revised to restrict insertion of the part-length control rods to no more than 25 percent inserted (112.5 inches withdrawn) for all power levels. This restriction and administrative controls will remain in place until the Moderator Temperature Coefficient (MTC) at 0% power becomes more negative than $-0.2 \times 10^{-4} \Delta p/^{\circ}\text{F}$. After that time, the restriction will be removed and COLR Figure 5 will be revised back to the original limits.

Technical Specifications (TS) 3.1.3.7, Part Length CEA Insertion Limits, is applicable in Mode 1 above 20% power. However, this restriction applies to all power levels including below 20% power to conservatively bound events that may occur at these low power levels. During this time in Cycle 11 while the restriction

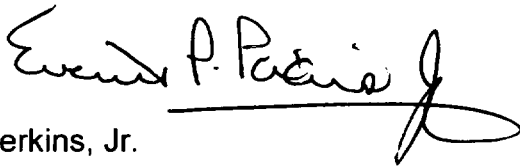
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is required, administrative controls will be employed to ensure the COLR figure is applied at all power levels.

This letter contains a commitment listed on the attached commitment identification form. If you have any questions concerning this matter, please contact Ron Williams at (504) 739-6255.

Very truly yours,

A handwritten signature in black ink, appearing to read "E.P. Perkins, Jr.", with a long horizontal flourish extending to the right.

E.P. Perkins, Jr.
Director,
Nuclear Safety Assurance

EPP/RLW/rtk

Attachment:

Attachment 1 Change No. 1 to the Core Operating
Limits Report for Cycle 11

Attachment 2 Commitment Identification/Voluntary
Enhancement Form

cc:

E.W. Merschoff, NRC Region IV
N. Kalyanam, NRC-NRR
J. Smith
N.S. Reynolds
NRC Resident Inspectors Office

ATTACHMENT 1

Change No. 1 to Core Operating Limits Report for Cycle 11

CYCLE 11 COLR, REVISION 0
CHANGE NO.1 REPLACEMENT PAGES
(5 pages)

Replace the following pages of the Waterford 3 Cycle 11 Core Operating Limits Report Revision 0 with the attached pages. The revised pages are identified by Change No. 1.

<u>Remove Page</u>	<u>Insert Page</u>
-----	Page 1
Page 2	Page 2
Page 3	Page 3
Page 4	Page 4
Page 5	Page 5
COLR 3/4 1-28A	COLR 3/4 1-28A

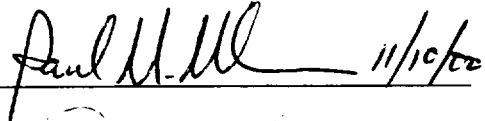
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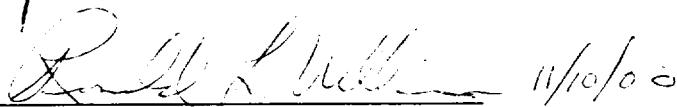
WATERFORD 3

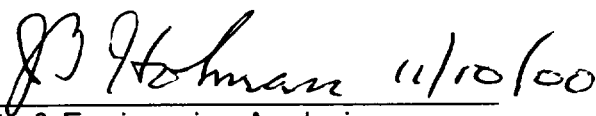
CORE OPERATING LIMITS REPORT


FOR CYCLE 11

REVISION 0
CHANGE NO. 1

Prepared by: P.M. Melancon  11/10/00

Reviewed by: R. L. Williams  11/10/00

Approved by: J. B. Holman  11/10/00
Safety & Engineering Analysis

Approved by: M. K. Brandon  11/10/00
Licensing

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CORE OPERATING LIMITS REPORT

CYCLE 11, REVISION 0

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3.1.2.9 Boron Dilution	COLR 3/4 1-15
3.1.3.1 Movable Control Assemblies - CEA Position	COLR 3/4 1-18
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Change No. 1	Pages 1, 2, 3, 4, 5

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CORE OPERATING LIMITS REPORT CYCLE 11, REVISION 0, CHANGE NO. 1

I. INTRODUCTION

This CORE OPERATING LIMITS REPORT (COLR) has been prepared in accordance with the requirements of Waterford 3 Technical Specification 6.9.1.11 for Waterford 3 Cycle 11. The core operating limits have been developed using the NRC approved methodologies specified in Section III. This is Revision 0, Change No. 1 of the Cycle 11 COLR.

Rev. 0

The major changes between the Cycle 11 and Cycle 10 COLR are listed below:

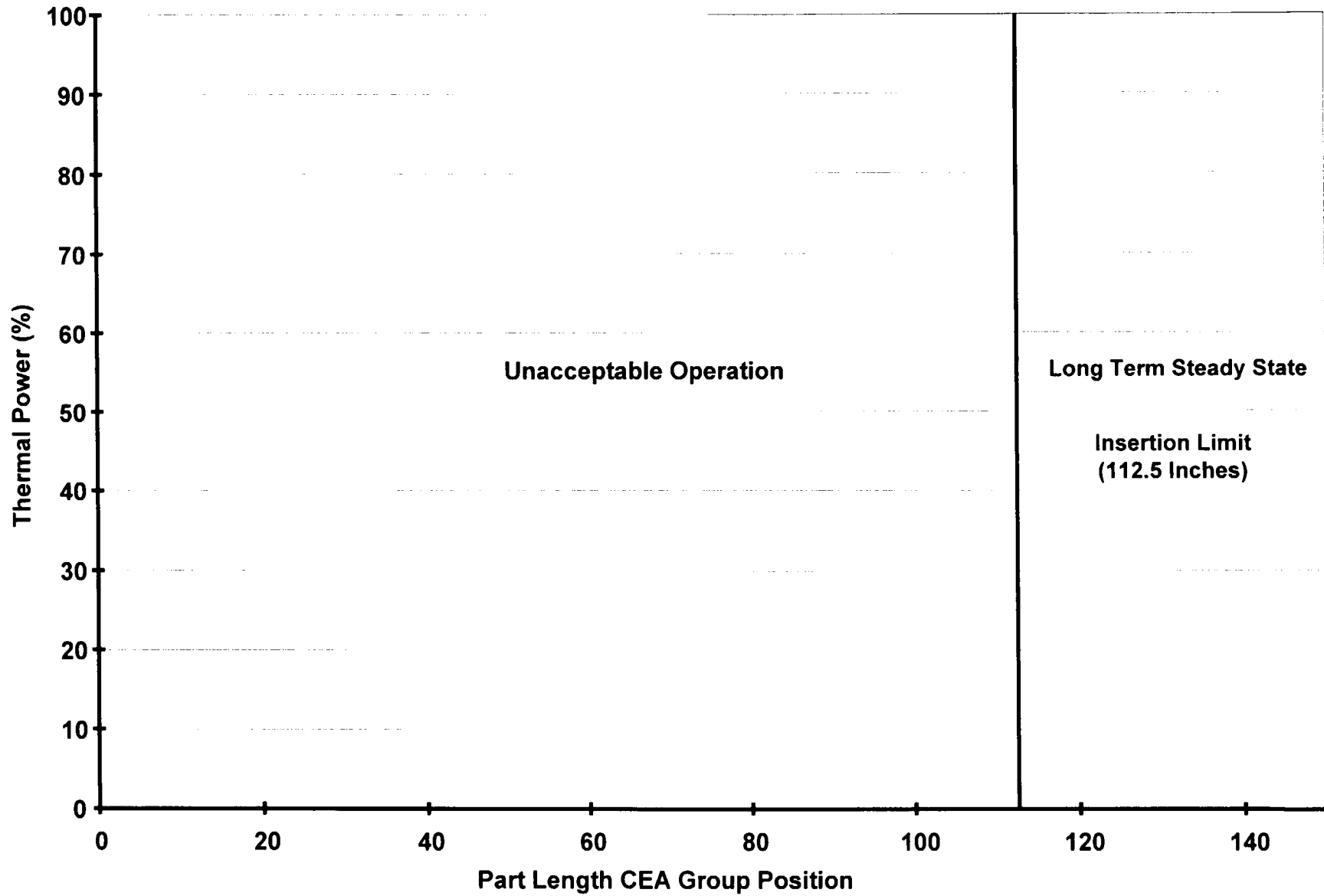
- Section 3.1.1.3 Figure 2 lower MTC limit was changed from $-3.3 \times 10^{-4} \Delta\rho/^\circ\text{F}$ to $-4.0 \times 10^{-4} \Delta\rho/^\circ\text{F}$.
- The COLR Cycle 10 Section 3.1.1.3 Figures 2A, 2B, and 2C were deleted and the corresponding restrictions were deleted.
- Section 3.2.1 Figure 6 and 7 Peak Linear Heat Generation Rates (kw/ft) were decreased by 0.1 kw/ft.
- Section 3.2.7 ASI values (COLSS operable at $\geq 70\%$ rated thermal power) were reduced to meet the requirements of the Cycle 11 reload.

Change No. 1

In accordance with the 50.59 Evaluation #00-068 for ER-W3-00-0853-00-00, Replacement of Pressurizer Proportional Heaters, Section 3.1.3.7 COLR Figure 5 was revised to restrict the part-length rods to 25 percent inserted (112.5 inches withdrawn) for all power levels until the Moderator Temperature Coefficient (MTC) at 50% power and below is confirmed to be more negative than the limits presented in the table below. This restriction will apply to power levels below 20% because the thermal margin requirements at 20% are used to define and bound those at lower powers. Technical Specifications (TS) 3.1.3.7, Part Length CEA Insertion Limits, is only applicable in Mode 1 above 20% thermal power. However, during Cycle 11 while the restriction is required, administrative controls will be employed to ensure the new COLR Figure is applied at all power levels.

	Power level, % of rated			
	0	20	50	70
MTC limits above which PLR restriction and BERR1 penalty apply, ($\times 10^{-4} \Delta\rho/^\circ\text{F}$)	-0.2	-0.2	-0.5	-0.7

Part Length CEA Group Insertion Limits Versus Thermal Power



COLR Figure 5

ATTACHMENT 2

Commitment Identification/Voluntary
Enhancement Form

COMMITMENT IDENTIFICATION/VOLUNTARY ENHANCEMENT FORM

Attachment 2 to W3F1-2000-0163
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Limits Report for Cycle 11
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COMMITMENT(S)	ONE-TIME ACTION*	CONTINUING COMPLIANCE*	SCHEDULED COMPLETION DATE (IF REQUIRED)	ASSOCIATED CR OR ER
COLR Section 3.1.3.7, Figure 5, has been revised to restrict insertion of the part-length control rods to no more than 25 percent inserted (112.5 inches withdrawn) for all power levels. This restriction will remain in place until the Moderator Temperature and administrative controls Coefficient (MTC) at 0% power becomes more negative than $-0.2 \times 10^{-4} \Delta\rho/^\circ\text{F}$. After that time, the restriction will be removed and COLR Figure 5 will be revised back to the original limits.		X	Initiated operating restriction 11/3/00 Scheduled removal of restriction after a burnup of approx. 172 EFPD in Cycle 11 or approximately 6/27/00	CR-WF3-2000-1362 ER-W3-00-0853-00-00 Commitment P-26059