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SUBJECT: Forwards tables as requested during 981202 telcon re proposed amend 184,dtd 980804,re ANFB-10 critical power correlation & MCPR safety limits.Tables provide roadmap identifying applicability of references to TSs.

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SUSQUEHANNA STEAM ELECTRIC STATION
SUPPLEMENTAL INFORMATION TO
PROPOSED AMENDMENT NO. 184 TO LICENSE NPF-22:
ANFB-10 CRITICAL POWER CORRELATION AND
MCPR SAFETY LIMITS
PLA-5015 **Docket No. 50-388**

Reference: 1. PLA-4946, "Proposed Amendment No. 184 to License NPF-22 : ANFB-10 Critical Power Correlation and MCPR Safety Limits," dated August 4, 1998.

The purpose of this letter is to provide the Tables contained in the Attachment as requested during the 12/02/98 teleconference between NRC (Vic Nerses) and PP&L, Inc. (Mike Crowthers, John Spadaro, Chet Lehman, Andy Dyszel). As noted in reference 1, a number of references from Technical Specification Section 5.6.5 are removed in order to include only those references that directly support the generation of the Core Operating Limits. The attached Tables provide a roadmap identifying the applicability of these references to the Technical Specifications.

PP&L plans to implement the proposed changes in April 1999 to support the startup of Unit 2 Cycle 10 operation. Therefore, we request NRC complete its review of this change by January 15, 1999 with the changes effective upon startup following the Unit 2 9th Refueling and Inspection Outage to support our scheduled implementation date.

Any questions regarding this request should be directed to Mr. R. R. Sgarro at (610) 774-7552.

Sincerely,

R. G. Byram

AUDI 1/1

Attachment

copy: NRC Region I
Mr. V. Nerses, NRC Sr. Project Manager - OWFN
Mr. S. L. Hansell, NRC Acting Sr. Resident Inspector - SSES
Mr. K. Kerns, Pa. DEP

ATTACHMENT TO PLA-5015

Cross Reference/Applicability for PP&L Methodology to Core Operating Limits Report Operating Limit
PP&L Proposed Amendment No. 184 to License NPF-22

Unit 2 Cycle 10 Reference Number	Applicability	COLR Limit/Technical Specification Section
1	PP&L NRC approved topical report describing licensing analysis methods for BWR design and analysis	-Minimum Critical Power Ratio (MCPR) / 3.2.2 -Shutdown Margin / 3.1.1
2	SPC NRC approved topical report describing licensing analysis methods for BWR design and analysis	-Minimum Critical Power Ratio (MCPR) / 3.2.2
3	SPC NRC approved topical report describing mechanical design analysis for 9X9-2	-Linear Heat Generation Rate (LHGR) / 3.2.3 -LHGR for APRM Setpoints / 3.2.4
4	SPC NRC approved topical report describing licensing analysis methods for BWR design and analysis	-Minimum Critical Power Ratio / 3.2.2
5	SPC NRC approved topical report describing MCPR and MCPR Safety Limit methodology including channel bow impact	-MCPR Safety Limit (two loop/single loop) / 2.1.1 -Minimum Critical Power Ratio (MCPR) / 3.2.2
6	SPC NRC approved topical report describing the ANFB CPR correlation for application to 9X9-2 SPC fuel	-Minimum Critical Power Ratio (MCPR) / 3.2.2
7	GE NRC approved topical report describing the SAFER/GESTR – LOCA methodology. Analysis of record for SPC 9X9-2 and GE-12 LUA fuel	-Average Planar Linear Heat Generation Rate (APLHGR) / 3.2.1
8	PP&L topical report describing PP&L methodology/licensing basis for power uprate and increased core flow.	-Applies to all Core Operating Limits contained in the COLR.
9	NRC SER on the above Reference 8 PP&L topical report describing power uprate and increased core flow	-Applies to all Core Operating Limits contained in the COLR.
10	PP&L NRC approved topical report describing methodology changes for the Loss of Feedwater Heating analysis and implementation of RETRAN MOD 5.1	-Minimum Critical Power Ratio (MCPR) / 3.2.2
11	PP&L NRC approved topical report describing the licensing basis for extension of SPC 9X9-2 discharge exposure	-Linear Heat Generation Rate (LHGR) / 3.2.3 -LHGR for APRM Setpoints / 3.2.4
12	GE NRC approved topical report describing the licensing analysis basis methodology for GE fuel. Methodology of record for GE-12 LUAs	-Minimum Critical Power Ratio (MCPR) / 3.2.2 -Linear Heat Generation Rate (LHGR) / 3.2.3 -LHGR for APRM Setpoints / 3.2.4 -Average Planar Linear Heat Generation Rate (APLHGR) / 3.2.1
13	PP&L NRC approved topical report describing methodology changes for implementation of CASMO-3G and the ANFB CPR Correlation	-Minimum Critical Power Ratio (MCPR) / 3.2.2 -Shutdown Margin / 3.1.1

Cross Reference/Applicability for PP&L Methodology to Core Operating Limits Report Operating Limit
PP&L Proposed Amendment No. 184 to License NPF-22

Unit 2 Cycle 10 Reference Number	Applicability	COLR Limit/Technical Specification Section
14	SPC NRC approved topical report describing generic mechanical design criteria which demonstrate acceptable results for SPC fuel designs (e. g., ATRIUM-10)	-Linear Heat Generation Rate (LHGR) / 3.2.3 -LHGR for APRM Setpoints / 3.2.4
15	SPC NRC approved topical report describing LOCA methodology used for SPC ATRIUM-10 fuel	-Average Planar Linear Heat Generation Rate (APLHGR) / 3.2.1
16	SPC NRC approved topical report describing LOCA methodology used for SPC ATRIUM-10 fuel	-Average Planar Linear Heat Generation Rate (APLHGR) / 3.2.1
17	SPC NRC approved topical report describing transient methodology used to calculate ΔCPR for development of MCPR Operating Limits	-Minimum Critical Power Ratio (MCPR) / 3.2.2
18	SPC NRC approved topical report describing transient methodology used to calculate ΔCPR for development of MCPR Operating Limits	-Minimum Critical Power Ratio (MCPR) / 3.2.2
19	SPC NRC approved topical report describing the ANFB-10 CPR Correlation	-Minimum Critical Power Ratio (MCPR) / 3.2.2

The applicability of the NRC approved references to the specific COLR Limits for the Susquehanna Steam Electric Station Unit 2 is summarized below.

Technical Specification	Technical Specification Reference Number Unit 2 Cycle 10 Proposed Technical Specifications																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Average Planar Linear Heat Generation Rate for Specification 3.2.1							x	x	x			x			x	x			
Minimum Critical Power Ratio for Specification 3.2.2	x	x		x	x	x		x	x	x		x	x				x	x	x
Linear Heat Generation Rate for Specification 3.2.3			x					x	x		x	x		x					
Average Power Range Monitor (APRM) Gain and Setpoints for Specification 3.2.4			x					x	x		x	x		x					
Shutdown Margin for Specification 3.1.1	x							x	x				x						