Industry/TSTF Standard Technical Specification Change Traveler

Modify SR 3.2.1.1 to reference the COLR

Classification: 1) Correct Specifications

NUREGs Affected: ☐ 1430 ☑ 1431 ☐ 1432 ☐ 1433 ☐ 1434

Description:

Modify NUREG-1431, SR 3.2.1.1 to include "within limits specified in the COLR."

Justification:

This change is needed in order to make consistent reference to the staff approved COLR for cycle specific parameters.

Industry Contact:	Buschbaum, Denny	(254) 897-5851	dbuschb1@tuelectric.com
NRC Contact:	Tjader, Bob	301-314-1187	trt@nrc.gov

Revision History

OG Revision 0 **Revision Status: Active** **Next Action: NRC**

Revision Proposed by: NRC

Revision Description:
Original Issue

TSTF Review Information

TSTF Received Date. 22-Jul-97 Date Distributed for Review 12-Oct-98

OG Review Completed: ☑ BWOG ☑ WOG ☑ CEOG ☑ BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved Date: 15-Jun-99

NRC Review Information

NRC Received Date: 16-Jun-99

NRC Comments:
(No Comments)

Final Resolution: NRC Action Pending Final Resolution Date:

Incorporation Into the NUREGs

File to BBS/LAN Date: TSTF Informed Date: TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

SR 3.2.1.1 Fq(z) (Fxy Methodology)

TSTF-338

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.5 Perform SR 3.2.1.1 and SR 3.2.1.2.	Prior to increasing THERMAL POWER above the limit of Required Action A.1
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 2.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.2.1.1	Verify measured values of $F_Q(Z)$ are within limits. Specified in the COLR	Once after each refueling prior to THERMAL POWER exceeding 75% RTP AND 31 EFPD thereafter

(continued)

for a full core flux map using the moveable incore detector flux mapping system

SURVEILLANCE REQUIREMENTS

SR 3.2.1.1 (continued)

map measurement uncertainty. This procedure is equivalent to increasing the directly measured values of $F_Q(Z)$ by 1.0815% before comparing with LCO limits (Ref. 4).

Performing the Surveillance in MODE 1 prior to THERMAL POWER exceeding 75% RTP after each refueling ensures that $F_Q(Z)$ is within limit when RTP is achieved.

and provides confirmation of the nuclear design and the fuel loading pattern

The Frequency of 31 EFPD is adequate for monitoring the change of power distribution with core burnup because the power distribution changes relatively slowly for this amount of fuel burnup. The Surveillance may be done more frequently if required by the results of SR 3.2.1.2.

SR 3.2.1.2

The nuclear design includes calculations that predict that the core can be operated within the $F_Q(Z)$ limits. Because flux maps are taken at steady state conditions, the axial variations in power distribution for normal operation maneuvers such as load following are not present in the flux map data. These axial variations are, however, conservatively calculated by considering, in the nuclear design process, a wide range of unit maneuvers in normal operation. $F_{xy}(Z)$ is the radial peaking factor, which is one component of $F_Q(Z)$ and should be consistent between the nuclear design values and the measured values. ($F_{xy}(Z)$ multiplied by the normalized average axial power at elevation Z gives $F_Q(Z)$.)

The core plane regions applicable to an F_{xy} evaluation exclude the following, measured in percent of core height:

a. Lower core region, from 0% to 15% inclusive;

b. Upper core region, from 85% to 100% inclusive;

c. Grid plane regions, ± 2% inclusive; and

d. Core plane regions, within ± 2% of the bank demand position of the control banks.

(continued)