Industry/TSTF Standard Technical Specification Change Traveler

Revise LCO 3.4.5 Bases to clarify RCP requirements

Priority/Classification 4) Change Bases

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

Description:

This change corrects the LCO Bases of 3.4.5 to distinguish between RCS loops that are operable and those that are in operation.

Justification:

LCO 3.4.5 requires two RCS loops to be Operable and for at least one loop to be in operation. As written, the Bases state that an operable loop has at least one RCP providing forced flow. This would require both RCS loops to be in operation in order to be operable, which conflicts with the LCO. This change corrects this error.

In addition, the word "OPERABLE" was put before the word "RCP" in the first sentect of the paragraph to be consistent with the last sentence in the paragraph which states, "An RCP is OPERABLE if ....".

Revision History

OG Revision 0 Revision Status: Active Next Action:

Revision Proposed by: Calvert Cliffs

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 24-Oct-96

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 24-Oct-96

TSTF Review Information

TSTF Received Date: 04-Nov-96 Date Distributed for Review 20-Jan-97

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

TSTF Comments:

Revise Bases to match same BWOG Bases for clarity and consistency.

WOG - Not applicable, accepts
BWOG - Not applicable, accepts
BWROG - Not applicable, accepts

TSTF Resolution: Approved Date: 06-Mar-97

NRC Review Information

NRC Received Date: 27-Mar-97 NRC Reviewer: WESTON, M.

NRC Comments:

4/7/97 Rec'd pkg.
4/10/97 Forwarded to reviewer.

Final Resolution: NRC Approves Final Resolution Date: 03-Oct-97

Incorporation Into the NUREGs

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

NUREG Rev Incorporated:

Affected Technical Specifications

LCO 3.4.5 Bases RCS Loops - Mode 3

TSTF-177

BASES (continued)

LCO

The purpose of this LCO is to require [two] RCS loops to be available for heat removal, thus providing redundancy. The LCO requires the [two] loops to be OPERABLE with the intent of requiring both SGs to be capable (> 25% water level) of transferring heat from the reactor coolant at a controlled rate. Forced reactor coolant flow is the required way to transport heat, although natural circulation flow provides adequate removal. A minimum of one running RCP meets the LCO requirement for one loop in operation.

The Note permits a limited period of operation without RCPs. All RCPs may be de-energized for $\leq$ 1 hour per 8 hour period. This means that natural circulation has been established. When in natural circulation, a reduction in boron concentration is prohibited because an even concentration distribution throughout the RCS cannot be ensured. Core outlet temperature is to be maintained at least 10°F below the saturation temperature so that no vapor bubble may form and possibly cause a natural circulation flow obstruction.

In MODES 3, 4, and 5, it is sometimes necessary to stop all RCPs or shutdown cooling (SDC) pump forced circulation (e.g., to change operation from one SDC train to the other, to perform surveillance or startup testing, to perform the transition to and from SDC System cooling, or to avoid operation below the RCP minimum net positive suction head limit). The time period is acceptable because natural circulation is adequate for heat removal, or the reactor coolant temperature can be maintained subcooled and boron stratification affecting reactivity control is not expected.

RCS

OPERABLE

An OPERABLE loop consists of at least one RCP ~~providing forced flow for heat transport~~ and an SG that is OPERABLE in accordance with the Steam Generator Tube Surveillance Program. An RCP is OPERABLE if it is capable of being powered and is able to provide forced flow if required.

APPLICABILITY

In MODE 3, the heat load is lower than at power; therefore, one RCS loop in operation is adequate for transport and heat removal. A second RCS loop is required to be OPERABLE but not in operation for redundant heat removal capability.

Operation in other MODES is covered by:

(continued)