

Industry/TSTF Standard Technical Specification Change Traveler

Move SR for 300 ppm MTC measurement to Frequency Note of SR 3.1.4.3

Priority/Classification 2) Consistency/Standardization

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

Description:

Delete SR 3.1.4.2 (MTC measurement at 300 ppm) and replace it with a note in SR 3.1.4.3. Reformat the Bases appropriately.

Justification:

SR 3.1.4.2 was deleted since the intent of this SR is only to determine the next frequency for SR 3.1.4.2. Identifying this frequency determination as an SR implies that it must be met in order to meet the LCO per SR 3.0.1, which is not true for this limit. SR 3.1.4.3 currently contains a Note that addresses the accelerated frequency required if the 300 ppm Surveillance limit is not met. The Note in the Frequency column of SR 3.1.4.3 is moved to the Surveillance column of SR 3.1.4.3 for clarification purposes. This change would make the use of this type of Note consistent with other SRs and the examples contained in Section 1.4.

Revision History

OG Revision 0

Revision Status: Closed

Revision Proposed by:

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 15-Mar-95

Owners Group Comments
WOG-4, C.5

Owners Group Resolution: Approved Date: 11-Aug-95

TSTF Review Information

TSTF Received Date: 05-Sep-95 Date Distributed for Review 05-Sep-95

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

TSTF Comments:
(No Comments)

TSTF Resolution: Approved Date: 05-Sep-95

NRC Review Information

NRC Received Date: 03-Oct-95 NRC Reviewer: R. Tjader

NRC Comments:

10/4/95 - R. Tjader referred pkg to Tech Branch for review.

10/31/95 - change approved.

11/14/95 - pkg to TSB mgmt.

11/17/95 - TSB mgmt approved changeEI

Final Resolution: Superseded by Revision

Final Resolution Date: 08-Jan-96

4/2/98

TSTF Revision 1**Revision Status: Active****Next Action:**

Revision Proposed by: TSTF

Revision Description:

Remarked the pages to use the TSTF number instead of the OG number.

TSTF Review Information

TSTF Received Date: 08-Jan-96

Date Distributed for Review 08-Jan-96

OG Review Completed: ☒ BWO ☒ WOG ☒ CEOG ☒ BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 08-Jan-96

NRC Review Information

NRC Received Date: 08-Jan-96

NRC Reviewer: R. Tjader

NRC Comments:

10/4/95 - R. Tjader referred pkg to Tech Branch for review

10/31/95 - change approved.

11/14/95 - pkg to TSB mgmt.

11/17/95 - TSB mgmt approved change.

1/24/96 - Changes processed and certified.

1/31/96 Control books, database, and TS+BBS updated.

2/1/96 TSTF-13 change approved in letter to NEI

Final Resolution: NRC Approves

Final Resolution Date: 01-Feb-96

Incorporation Into the NUREGs

File to BBS/LAN Date: 31-Jan-96

TSTF Informed Date: 31-Jan-96

TSTF Approved Date:

NUREG Rev Incorporated.

Affected Technical Specifications

SR 3.1.4.2 Moderator Temperature Coefficient (MTC)

SR 3.1.4.2 Bases Moderator Temperature Coefficient (MTC)

SR 3.1.4.3 Moderator Temperature Coefficient (MTC)

SR 3.1.4.3 Bases Moderator Temperature Coefficient (MTC)

4/2/98

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 Verify MTC is within upper limit.	Once prior to entering MODE 1 after each refueling
SR 3.1.4.2 Verify MTC is within 300 ppm Surveillance limit specified in the COLR.	NOTE 1. Not required to be performed until 7 effective full power days (EFPD) after reaching the equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 ppm Once each cycle
SR 3.1.4.3 NOTES If the MTC is more negative than the 300 ppm Surveillance limit (not LCO limit) specified in the COLR, SR 3.1.4.3 shall be repeated once per 14 EFPD during the remainder of the fuel cycle. SR 3.1.4.3 need not be repeated if the MTC measured at the equivalent of equilibrium RTP-ARO boron concentration of ≤ 60 ppm is less negative than the 60 ppm Surveillance limit specified in the COLR.	NOTE Not required to be performed until 7 EFPD after reaching the equivalent of an equilibrium RTP-ARO boron concentration of 300 ppm
Verify MTC is within lower limit.	Once each cycle

BASES

SURVEILLANCE
REQUIREMENTS
(continued)SR 3.1.4.2 and ~~SR 3.1.4.3~~

In similar fashion, the LCO demands that the MTC be less negative than the specified value for EOC full power conditions. This measurement may be performed at any THERMAL POWER, but its results must be extrapolated to the conditions of RTP and all banks withdrawn in order to make a proper comparison with the LCO value. Because the RTP MTC value will gradually become more negative with further core depletion and boron concentration reduction, a 300 ppm SR value of MTC should necessarily be less negative than the EOC LCO limit. The 300 ppm SR value is sufficiently less negative than the EOC LCO limit value to ensure that the LCO limit will be met when the 300 ppm Surveillance criterion is met.

SR 3.1.4.3 is modified by ⁽²⁾ Note ^(three) that includes ⁽⁵⁾ the following requirements:

(b) → (2) If the 300 ppm Surveillance limit is exceeded, it is possible that the EOC limit on MTC could be reached before the planned EOC. Because the MTC changes slowly with core depletion, the Frequency of 14 effective full power days is sufficient to avoid exceeding the EOC limit.

(c) → (3) The Surveillance limit for RTP boron concentration of 60 ppm is conservative. If the measured MTC at 60 ppm is more positive than the 60 ppm Surveillance limit, the EOC limit will not be exceeded because of the gradual manner in which MTC changes with core burnup.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 11.
2. FSAR, Chapter [15].
3. WCAP 9273-NP-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985.
4. FSAR, Chapter [15].

a. The SR is not required to be performed until 7 effective full power days (EFPDs) after reaching the equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 p.p.m.

DELETE SR 3.1.4.2 AND REFORMAT SR 3.1.4.3

SR 3.1.4.2 was deleted since the intent of this SR is only to determine the next frequency for SR 3.1.4.3. Identifying this frequency determination as a SR implies that it must be met in order to meet the LCO per SR 3.0.1 which is not true for this limit. SR 3.1.4.3 currently contains a Note that addresses the accelerated frequency required if the 300 ppm Surveillance limit is not met. The Note in the Frequency column of SR 3.1.4.3 is moved to the Surveillance column of SR 3.1.4.3 for clarification purposes. This change would make the use of this type of Note consistent with other SRs and the examples contained in Section 1.4.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 Verify MTC is within upper limit.	Once prior to entering MODE 1 after each refueling
<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;"> SR 3.1.4.2 Verify MTC is within 300 ppm Surveillance limit specified in the COLR. </div>	<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;"> NOTE 1. Not required to be performed until 7 effective full power days (EFPD) after reaching the equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 ppm </div>
<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block; margin-bottom: 10px;"> TSTF-13 </div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;"> Once each cycle </div>	
SR 3.1.4.3 ² 1.2 If the MTC is more negative than the 300 ppm Surveillance limit (not LCO limit) specified in the COLR, SR 3.1.4.3 shall be repeated once per 14 EFPD during the remainder of the fuel cycle. 2.3 SR 3.1.4.3 ² need not be repeated if the MTC measured at the equivalent of equilibrium RTP-ARO boron concentration of ≤ 60 ppm is less negative than the 60 ppm Surveillance limit specified in the COLR.	<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;"> NOTE Not required to be performed until 7 EFPD after reaching the equivalent of an equilibrium RTP-ARO boron concentration of 300 ppm </div>
Verify MTC is within lower limit.	Once each cycle

BASES

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.1.4.2 and ~~SR 3.1.4.3~~

In similar fashion, the LCO demands that the MTC be less negative than the specified value for EOC full power conditions. This measurement may be performed at any THERMAL POWER, but its results must be extrapolated to the conditions of RTP and all banks withdrawn in order to make a proper comparison with the LCO value. Because the RTP MTC value will gradually become more negative with further core depletion and boron concentration reduction, a 300 ppm SR value of MTC should necessarily be less negative than the EOC LCO limit. The 300 ppm SR value is sufficiently less negative than the EOC LCO limit value to ensure that the LCO limit will be met when the 300 ppm Surveillance criterion is met.

SR 3.1.4.2² is modified by ^{three} Note³ that includes the following requirements:

- b2:** If the 300 ppm Surveillance limit is exceeded, it is possible that the EOC limit on MTC could be reached before the planned EOC. Because the MTC changes slowly with core depletion, the Frequency of 14 effective full power days is sufficient to avoid exceeding the EOC limit.
- c2:** The Surveillance limit for RTP boron concentration of 60 ppm is conservative. If the measured MTC at 60 ppm is more positive than the 60 ppm Surveillance limit, the EOC limit will not be exceeded because of the gradual manner in which MTC changes with core burnup.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 11.
2. FSAR, Chapter [15].
3. WCAP 9273-NP-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985.
4. FSAR, Chapter [15].

a. The SR is not required to be performed until 7 effective full power days (EFPDs) after reaching the equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 ppm.