

Industry/TSTF Standard Technical Specification Change Traveler

Eliminate the 12 hour COT on power range and intermediate range channels for Physics Test Exceptions

Priority/Classification 3) Improve Specifications

NUREGs Affected: 1430 1431 1432 1433 1434

Description:

SR 3.1.10.1 and SR 3.4.19.2 require a COT "within 12 hours prior to initiation of Physics Tests" regardless of whether the COT has been performed within its required frequency for RTS. This change eliminates those surveillances.

Justification:

Performance of a COT on power range and intermediate range channels is required by LCO 3.3.1, RTS Instrumentation, every 92 days (SR 3.3.1.7 and SR 3.3.1.8). The 92 day required frequency has been determined to be sufficient for verification that the power range and intermediate range monitors are properly functioning.

SR 3.1.10.1 and SR 3.4.19.2 require a COT within 12 hours prior to initiation of Physics Tests regardless of whether the COT has been performed within its required frequency. Initiation of Physics Tests does not impact the ability of the monitors to perform their required function, does not affect the trip setpoints or RTS trip capability, and does not invalidate previous surveillances. Therefore, an additional surveillance required to be performed "prior to" this event is an extraneous and unnecessary performance of a surveillance.

Furthermore, this surveillance is not related to any LCO requirement and has no appropriate condition to enter upon failure to meet the surveillance. Therefore, deletion of the surveillance, relying on the COT surveillance specified within the RTS Instrumentation LCO, enhances the proper utilization of the ITS.

Revision History

OG Revision 0

Revision Status: Closed

Revision Proposed by:

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 18-Jan-96

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 18-Jan-96

TSTF Review Information

TSTF Received Date: 20-Feb-96 Date Distributed for Review 12-Apr-96

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

NA CEOG, BWOG, BWROG

TSTF Resolution: Approved Date: 28-May-96

4/2/98

NRC Review Information

NRC Received Date: 17-Jul-96

NRC Reviewer: R. Tjader, M.

NRC Comments:

9/18/96 - NRC would like to arrange a technical discussion on this change.

9/18/96 - TSTF to arrange meeting or conference call.

10/30/96 - The NRC wants to ensure that SR 3.3.1.7 and 3.3.1.8 are performed prior to the initiation of Physics Tests. The industry wants to eliminate the "within 12 hours" because of the scheduling difficulties it creates. The TSTF will revise the Traveler to retain the SR and eliminate the phrase "Within 12 hours" in the Frequency. The industry will also look at other possible applications of the concept.

1/17/97 - Traveler revised to incorporate comments and provided to the NRC. Other applications will be addressed in separate travelers.

Final Resolution: Superseded by Revision

Final Resolution Date: 23-Jan-97

TSTF Revision 1

Revision Status: Active

Next Action:

Revision Proposed by: NRC

Revision Description:

Retained the SR and changed the frequency as noted in the NRC Reviewers Comments field.

TSTF Review Information

TSTF Received Date: 30-Oct-96

Date Distributed for Review 20-Nov-96

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 19-Dec-96

NRC Review Information

NRC Received Date: 23-Jan-97

NRC Reviewer: R. Tjader, M

NRC Comments:

3/18/97 - NRC reviewing.

4/29/97 - reviewer recommended approval.

4/29/97 - to C. Grimes for disposition.

5/2/97 - C. Grimes approved changes.

Final Resolution: NRC Approves

Final Resolution Date: 02-May-97

Incorporation Into the NUREGs

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

SR 3.1.10.1 Physics Tests Exceptions - Mode 2

SR 3.1.10.1 Bases Physics Tests Exceptions - Mode 2

4/2/98

SR 3.4.19.2 RCS Loops - Test Exceptions

SR 3.4.19.2 Bases RCS Loops - Test Exceptions

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. RCS lowest loop average temperature not within limit.	C.1 Restore RCS lowest loop average temperature to within limit.	15 minutes
D. Required Action and associated Completion Time of Condition C not met.	D.1 Be in MODE 3.	15 minutes

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.10.1. Perform a CHANNEL OPERATIONAL TEST on power range and intermediate range channels per [SR 3.3.1.7, SR 3.3.1.8, and Table 3.3.1-1].	Within 12 hours prior to initiation of PHYSICS TESTS
SR 3.1.10.2 Verify the RCS lowest loop average temperature is $\geq [531]^{\circ}\text{F}$.	30 minutes
SR 3.1.10.3 Verify SDM is $\geq 1.6\% \Delta k/k$.	24 hours

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BASES

ACTIONS
(continued)

C.1

When the RCS lowest T_{avg} is $< 531^{\circ}\text{F}$, the appropriate action is to restore T_{avg} to within its specified limit. The allowed Completion Time of 15 minutes provides time for restoring T_{avg} to within limits without allowing the plant to remain in an unacceptable condition for an extended period of time. Operation with the reactor critical and with temperature below 531°F could violate the assumptions for accidents analyzed in the safety analyses.

D.1

If the Required Actions cannot be completed within the associated Completion Time, the plant must be brought to a MODE in which the requirement does not apply. To achieve this status, the plant must be brought to at least MODE 3 within an additional 15 minutes. The Completion Time of 15 additional minutes is reasonable, based on operating experience, for reaching MODE 3 in an orderly manner and without challenging plant systems.

SURVEILLANCE
REQUIREMENTS

SR 3.1.10.1

The power range and intermediate range neutron detectors must be verified to be OPERABLE in MODE 2 by LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation." A CHANNEL OPERATIONAL TEST is performed on each power range and intermediate range channel within 12 hours prior to initiation of the PHYSICS TESTS. This will ensure that the RTS is properly aligned to provide the required degree of core protection during the performance of the PHYSICS TESTS. The 12 hour time limit is sufficient to ensure that the instrumentation is OPERABLE shortly before initiating PHYSICS TESTS.

SR 3.1.10.2

Verification that the RCS lowest loop T_{avg} is $\geq 531^{\circ}\text{F}$ will ensure that the unit is not operating in a condition that could invalidate the safety analyses. Verification of the RCS temperature at a Frequency of 30 minutes during the

(continued)

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.19 RCS Loops—Test Exceptions

LCO 3.4.19 The requirements of LCO 3.4.4, "RCS Loops—MODES 1 and 2," may be suspended, with THERMAL POWER < P-7.

APPLICABILITY: MODES 1 and 2 during startup and PHYSICS TESTS.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. THERMAL POWER \geq P-7.	A.1 Open reactor trip breakers.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.19.1 Verify THERMAL POWER is < P-7.	1 hour
SR 3.4.19.2 Perform a COT for each power range neutron flux—low and intermediate range neutron flux channel and P-7.	Within 12 hours prior to initiation of startup and PHYSICS TESTS

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BASES (continued)

ACTIONS

A.1

When THERMAL POWER is \geq the P-7 interlock setpoint 10%, the only acceptable action is to ensure the reactor trip breakers (RTBs) are opened immediately in accordance with Required Action A.1 to prevent operation of the fuel beyond its design limits. Opening the RTBs will shut down the reactor and prevent operation of the fuel outside of its design limits.

SURVEILLANCE
REQUIREMENTS

SR 3.4.19.1

Verification that the power level is $<$ the P-7 interlock setpoint (10%) will ensure that the fuel design criteria are not violated during the performance of the PHYSICS TESTS. The Frequency of once per hour is adequate to ensure that the power level does not exceed the limit. Plant operations are conducted slowly during the performance of PHYSICS TESTS and monitoring the power level once per hour is sufficient to ensure that the power level does not exceed the limit.

SR 3.4.19.2

The power range and intermediate range neutron detectors and the P-7 interlock setpoint must be verified to be OPERABLE and adjusted to the proper value. A COT is performed ~~when~~ 12 hours prior to initiation of the PHYSICS TESTS. This will ensure that the RTS is properly aligned to provide the required degree of core protection during the performance of the PHYSICS TESTS. The time limit of 12 hours is sufficient to ensure that the instrumentation is OPERABLE shortly before initiating PHYSICS TESTS.

REFERENCES

1. 10 CFR 50, Appendix B, Section XI.
 2. 10 CFR 50, Appendix A, GDC 1, 1988.
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