

Industry/TSTF Standard Technical Specification Change Traveler

Modify MODE 2 STE Applicability

Priority/Classification 1) Correct Specifications

NUREGs Affected: 1430 1431 1432 1433 1434

Description:

Mode 2 STE Applicability is modified to "During PHYSICS TESTS initiated in MODE 2."

Justification:

This Applicability is required in order to ensure that the Required Action A. 1 is completed should THERMAL POWER exceed 5% RTP. As currently written in the NUREG, upon exceeding 5% RTP the unit is in MODE 1 and the LCO and its requirements no longer apply.

Revision History

| OG Revision 0 | Revision Status: Active | Next Action: NRC |
|---------------|-------------------------|------------------|
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Revision Proposed by: Oconec

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 06-Nov-97

Owners Group Comments
ONS-018

Owners Group Resolution: Approved Date: 06-Nov-97

TSTF Review Information

TSTF Received Date: 06-Nov-97 Date Distributed for Review 15-Dec-97

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

BWOG and WOG only. CEOG STE applies in MODES 1 and 2.

TSTF Resolution: Approved Date: 05-Feb-98

Incorporation Into the NUREGs

| File to BBS/LAN Date: | TSTF Informed Date: | TSTF Approved Date: |
|-----------------------|---------------------|---------------------|
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NUREG Rev Incorporated:

Affected Technical Specifications

| | | |
|-------------------|----------------------------------|---------------------|
| Appl. 3.1.9 | Physics Tests Exception - MODE 2 | NUREG(s)- 1430 Only |
| Appl. 3.1.9 Bases | Physics Tests Exception - MODE 2 | NUREG(s)- 1430 Only |
| Appl. 3.1.10 | Physics Tests Exception - MODE 2 | NUREG(s)- 1431 Only |

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The Applicability is stated as "during PHYSICS TESTS initiated in MODE 2" to ensure that the 5% RTP maximum power level is not exceeded. Should the THERMAL POWER exceed 5% RTP, and consequently the unit enter MODE 1, this Applicability statement prevents exiting this Specification and its Required Actions.

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3.1 REACTIVITY CONTROL SYSTEMS

3.1.9 PHYSICS TESTS Exceptions - MODE 2

LCO 3.1.9 During performance of PHYSICS TESTS, the requirements of

- LCO 3.1.3, "Moderator Temperature Coefficient (MTC)";
- LCO 3.1.4, "CONTROL ROD Group Alignment Limits";
- LCO 3.1.5, "Safety Rod Insertion Limits";
- LCO 3.1.6, "AXIAL POWER SHAPING ROD (APSR) Alignment Limits";
- LCO 3.2.1, "Regulating Rod Insertion Limits," for the restricted operation region only; and
- [LCO 3.4.2, "RCS Minimum Temperature for Criticality"]

may be suspended, provided:

- a. THERMAL POWER is $\leq 5\%$ RTP;
- b. Reactor trip setpoints on the OPERABLE nuclear overpower channels are set to $\leq 25\%$ RTP;
- c. Nuclear instrumentation source range and intermediate range high startup rate CONTROL ROD withdrawal inhibit are OPERABLE; and
- d. SDM is $\geq [1.0]\% \Delta k/k$.

APPLICABILITY:

MODE 2 during PHYSICS TESTS. initiated in MODE 2

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|------------------------------------|---|-----------------|
| A. THERMAL POWER not within limit. | A.1 Open control rod drive trip breakers. | Immediately |

(continued)

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BASES

APPLICABLE
SAFETY ANALYSES
(continued)

temperature to decrease to 520°F during MODE 2 PHYSICS TESTS, based on the low probability of an accident occurring and on prior operating experience.

PHYSICS TESTS include measurement of core nuclear parameters or exercise of control components that affect process variables.

PHYSICS TESTS satisfy Criteria 1, 2, and 3 of the NRC Policy Statement.

LCO

This LCO permits individual CONTROL RODS to be positioned outside of their specified group alignment and withdrawal limits and to be assigned to other than specified CONTROL ROD groups during the performance of PHYSICS TESTS. In addition, this LCO permits verification of the fundamental core characteristics.

This LCO also allows suspension of LCO 3.1.3, LCO 3.1.4, LCO 3.1.5, LCO 3.1.6, LCO 3.2.1, and LCO 3.4.2, provided:

- a. THERMAL POWER is $\leq 5\%$ RTP;
- b. Nuclear overpower trip setpoints on the OPERABLE nuclear power range channels are set to $\leq 25\%$ RTP;
- c. Nuclear instrumentation source range and intermediate range high startup rate CONTROL ROD withdrawal inhibit are OPERABLE; and
- d. SDM is maintained $\geq [1.0]\% \Delta k/k$.

The limits of LCO 3.2.3 and LCO 3.2.4 do not apply in MODE 2. Inhibiting CONTROL ROD withdrawal, based on startup rate, also limits local linear heat rate (LHR), departure from nucleate boiling ratio (DNBR), and peak RCS pressure during accidents initiated from low power.

subcritical

APPLICABILITY

This LCO is applicable in MODE 2 when the reactor is either not critical or when THERMAL POWER is $\leq 5\%$ RTP. This LCO is applicable for initial criticality or low power testing, as defined by Regulatory Guide 1.68 (Ref. 3). In MODE 1,

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3.1 REACTIVITY CONTROL SYSTEMS

3.1.10 PHYSICS TESTS Exceptions—MODE 2

LCO 3.1.10 During the performance of PHYSICS TESTS, the requirements of

- LCO 3.1.4, "Moderator Temperature Coefficient (MTC)";
- LCO 3.1.5, "Rod Group Alignment Limits";
- LCO 3.1.6, "Shutdown Bank Insertion Limits";
- LCO 3.1.7, "Control Bank Insertion Limits"; and
- LCO 3.4.2, "RCS Minimum Temperature for Criticality"

may be suspended, provided:

- a. RCS lowest loop average temperature is $\geq [531]^{\circ}\text{F}$; and
- b. SDM is $\geq [1.6]\% \Delta k/k$.

APPLICABILITY: MODE 2 during PHYSICS TESTS:

initiated in MODE 2

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|------------------------------------|---|-----------------|
| A. SDM not within limit. | A.1 Initiate boration to restore SDM to within limit. | 15 minutes |
| | <u>AND</u> A.2 Suspend PHYSICS TESTS exceptions. | 1 hour |
| B. THERMAL POWER not within limit. | B.1 Open reactor trip breakers. | Immediately |

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BASES

LCO
(continued)

limits is permitted for the purpose of performing PHYSICS TESTS and poses no threat to fuel integrity, provided the SRs are met.

The requirements of LCO 3.1.4, LCO 3.1.5, LCO 3.1.6, LCO 3.1.7, and LCO 3.4.2 may be suspended during the performance of PHYSICS TESTS provided:

- a. RCS lowest loop average temperature is \geq [531] °F; and
 - b. SDM is \geq [1.6]% $\Delta k/k$.
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APPLICABILITY

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This LCO is applicable in ~~MODE 2~~ when performing low power PHYSICS TESTS. ~~The applicable PHYSICS TESTS are performed in MODE 2 at HZP.~~ Other PHYSICS TESTS are performed in MODE 1 and are addressed in LCO 3.1.9, "PHYSICS TESTS Exceptions—MODE 1."

ACTIONS

A.1 and A.2

If the SDM requirement is not met, boration must be initiated promptly. A Completion Time of 15 minutes is adequate for an operator to correctly align and start the required systems and components. The operator should begin boration with the best source available for the plant conditions. Boration will be continued until SDM is within limit.

Suspension of PHYSICS TESTS exceptions requires restoration of each of the applicable LCOs to within specification.

B.1

When THERMAL POWER is $>$ 5% RTP, the only acceptable action is to open the reactor trip breakers (RTBs) to prevent operation of the reactor beyond its design limits. Immediately opening the RTBs will shut down the reactor and prevent operation of the reactor outside of its design limits.

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