

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 2 AND 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE  
TS-384, SUPPLEMENT 2  
MARKED PAGES

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I. AFFECTED PAGE LIST

The following pages have been marked and an 'X' has been placed in the right hand margin to indicate where changes occur. The affected page list is identical for both Unit 2 and Unit 3

<u>Technical Specifications</u>	<u>Bases</u>
3.4-26	B 3.4-56 B 3.4-57

II. MARKED PAGES

See attached.

9807070226 980626  
PDR ADCK 05000260  
P PDR

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.10 Reactor Steam Dome Pressure

LCO 3.4.10 The reactor steam dome pressure shall be  $\leq$  ~~1020~~<sup>1050</sup> psig.

APPLICABILITY: MODES 1 and 2.

ACTIONS:

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor steam dome pressure not within limit.	A.1 Restore reactor steam dome pressure to within limit.	15 minutes
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.10.1	Verify reactor steam dome pressure is $\leq$ <del>1020</del> <sup>1050</sup> psig.	12 hours

B 3.4 REACTOR COOLANT SYSTEM (RCS)

B 3.4.10 Reactor Steam Dome Pressure

BASES . . .

**BACKGROUND** The reactor steam dome pressure is an assumed value in the determination of compliance with reactor pressure vessel overpressure protection criteria and is also an assumed initial condition of design basis accidents and transients.

**APPLICABLE SAFETY ANALYSES** The reactor steam dome pressure of  $\leq 1071$  psig is an initial condition of the vessel overpressure protection analysis of Reference 1. This analysis assumes an initial maximum reactor steam dome pressure and evaluates the response of the pressure relief system, primarily the safety/relief valves, during the limiting pressurization transient. The determination of compliance with the overpressure criteria is dependent on the initial reactor steam dome pressure; therefore, the limit on this pressure ensures that the assumptions of the overpressure protection analysis are conserved. Reference 2 also assumes an initial reactor steam dome pressure for the analysis of design basis accidents and transients used to determine the limits for fuel cladding integrity (see Bases for LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)") and 1% cladding plastic strain (see Bases for LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)"). Since the design basis accident and the transient analyses are performed at nominal operating pressures or above  $(1008 \text{ psig})$ , a reactor steam dome pressure limit is chosen at  $1020$  psig, to ensure the plant is operated within the bounds of the uncertainties of the design basis accident and transient analyses.

(1035 psig and 1040 psig, respectively)

1050

1055

Reactor steam dome pressure satisfies the requirements of Criterion 2 of the NRC Policy Statement (Ref. 3).

1050

**LCO** The specified reactor steam dome pressure limit of  $\leq 1020$  psig ensures the plant is operated within the assumptions of the transient analysis. Operation above the limit may result in a transient response more severe than analyzed.

(continued)

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BASES

APPLICABILITY

In MODES 1 and 2, the reactor steam dome pressure is required to be less than or equal to the limit. In these MODES, the reactor may be generating significant steam and the design basis accidents and transients are bounding.

In MODES 3, 4, and 5, the limit is not applicable because the reactor is shut down. In these MODES, the reactor pressure is well below the required limit, and no anticipated events will challenge the overpressure limits.

ACTIONS

A.1

With the reactor steam dome pressure greater than the limit, prompt action should be taken to reduce pressure to below the limit and return the reactor to operation within the bounds of the analyses. The 15 minute Completion Time is reasonable considering the importance of maintaining the pressure within limits. This Completion Time also ensures that the probability of an accident occurring while pressure is greater than the limit is minimized. If the operator is unable to restore the reactor steam dome pressure to below the limit, then the reactor should be placed in MODE 3 to be operating within the assumptions of the transient analyses.

B.1

If the reactor steam dome pressure cannot be restored to within the limit within the associated Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE  
REQUIREMENTS

SR 3.4.10.1

Verification that reactor steam dome pressure is  $\leq$  <sup>1050</sup> ~~1020~~ psig ensures that the initial conditions of the design basis accidents and transients are met. Operating experience has shown the 12 hour.

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3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.10 Reactor Steam Dome Pressure

LCO 3.4.10 The reactor steam dome pressure shall be  $\leq$  ~~1020~~<sup>1050</sup> psig. X

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Reactor steam dome pressure not within limit.	A.1 Restore reactor steam dome pressure to within limit.	15 minutes
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.10.1 Verify reactor steam dome pressure is $\leq$ <del>1020</del> <sup>1050</sup> psig.	12 hours X

B 3.4 REACTOR COOLANT SYSTEM (RCS)

B 3.4.10 Reactor Steam Dome Pressure

BASES

BACKGROUND

The reactor steam dome pressure is an assumed value in the determination of compliance with reactor pressure vessel overpressure protection criteria and is also an assumed initial condition of design basis accidents and transients.

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The reactor steam dome pressure of  $\leq 1071$  psig is an initial condition of the vessel overpressure protection analysis of Reference 1. This analysis assumes an initial maximum reactor steam dome pressure and evaluates the response of the pressure relief system, primarily the safety/relief valves, during the limiting pressurization transient. The determination of compliance with the overpressure criteria is dependent on the initial reactor steam dome pressure; therefore, the limit on this pressure ensures that the assumptions of the overpressure protection analysis are conserved. Reference 2 also assumes an initial reactor steam dome pressure for the analysis of design basis accidents and transients used to determine the limits for fuel cladding integrity (see Bases for LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)") and 1% cladding plastic strain (see Bases for LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)"). Since the design basis accident and the transient analyses are performed at nominal operating pressures or above  $(1005 \text{ psig})$ , a reactor steam dome pressure limit is chosen at  $1020$  psig, to ensure the plant is operated within the bounds of the uncertainties of the design basis accident and transient analyses.

(1035 psig and 1040 psig, respectively)

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Reactor steam dome pressure satisfies the requirements of Criterion 2 of the NRC Policy Statement (Ref. 3).

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LCO

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BASES

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SURVEILLANCE  
REQUIREMENTS

SR 3.4.10.1

Verification that reactor steam dome pressure is  $\leq$  <sup>1050</sup> ~~1020~~ psig ensures that the initial conditions of the design basis accidents and transients are met. Operating experience has shown the 12 hour.

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