



**Pre-Submittal Presentation – Adoption of TSTF-266-A, Revision 3,
*Eliminate the Remote Shutdown System Table of Instrumentation and
Controls, LAR***

April 2023



Agenda

- Overview of TSTF-266-A
- Proposed TS and TS Bases Changes
- Precedents
- Submittal Timeline



Overview of TSTF-266-A

- September 10, 1999, the NRC approved TSTF-266-A (ADAMS Legacy Accession No. 9909160189).
- TSTF-266 removed Table from the Remote Shutdown System LCO that specified functions needed to be operable, while leaving intact overall LCO stating that remote shutdown system must be operable.
- Information relocated to TS Bases.
- Unnecessary to list specific instruments and controls in TS LCO to provide adequate assurance that functions can be performed.



Proposed TS Changes to 3.3.11

3.3 INSTRUMENTATION

3.3.11 Remote Shutdown System

LCO 3.3.11 The Remote Shutdown System Instrumentation Functions ~~in~~
~~Table 3.3.11.1~~ and each Remote Shutdown System disconnect
switch and control circuit shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each Function.

CONDITION		REQUIRED ACTION	COMPLETION TIME
A.	One or more required Functions in Table 3.3.11.1 inoperable.	A.1 Restore required Functions to OPERABLE status.	30 days



Proposed TS Changes to 3.3.11

Removed from TS and placed in Bases as Table B 3.3.11-1. Delete page.

Remote Shutdown System
3.3.11

Table 3.3.11-1 (page 1 of 1)
Remote Shutdown System Instrumentation and Controls

FUNCTION/INSTRUMENT	REQUIRED NUMBER OF CHANNELS
1. Reactivity Control	
a. Log Power Neutron Flux	2
2. Reactor Coolant System Pressure Control	
a. Pressurizer Pressure	1
b. Refueling Water Tank Level	2
c. Charging Line Pressure	1
d. Charging Line Flow	1
3. Decay Heat Removal (via Steam Generators)	
a. Reactor Coolant Hot Leg Temperature	1 per loop
b. Reactor Coolant Cold Leg Temperature	1 per loop
c. Steam Generator Pressure	2 per steam generator
d. Steam Generator Level	2 per steam generator
e. Auxiliary Feedwater Flow	2 per steam generator
4. Decay Heat Removal (via Shutdown Cooling System)	
a. Shutdown Cooling Heat Exchanger Temperature	2
b. Shutdown Cooling Flow	2
5. Reactor Coolant System Inventory Control	
a. Pressurizer Level	2



Proposed Changes to TS Bases 3.3.11

LCO

The Remote Shutdown System LCO provides the requirements for the OPERABILITY of the instrumentation and controls necessary to place and maintain the plant in MODE 3 from a location other than the control room. The instrumentation required is listed in Table [B3.3.11-1](#) ~~in the accompanying LCO~~. The disconnect switches and control circuits are listed in PVNGS controlled documents.



Proposed Changes to TS Bases 3.3.11

ACTIONS

A Remote Shutdown System division is inoperable when each Function ~~listed in Table 3.3.11-1~~ is not accomplished by the required number of channels ~~in Table 3.3.11-1~~ that satisfies the OPERABILITY criteria for the channel's Function. These criteria are outlined in the LCO section of the Bases.

A Note has been added in the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function ~~listed in Table 3.3.11-1~~. The Completion Time(s) of the inoperable channel(s)/train(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A addresses the situation where one or more instrumentation channels of the Remote Shutdown System are inoperable for any required Function. ~~This includes any Function listed in Table 3.3.11-1.~~



Proposed Changes to TS Bases 3.3.11

< Insert this Table B 3.3.11-1 at the end of the
Technical Specification Bases (from LCO 3.3.11) >

Remote Shutdown System
3.3.11

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a. Reactor Coolant Hot Leg Temperature	1 per loop
b. Reactor Coolant Cold Leg Temperature	1 per loop
c. Steam Generator Pressure	2 per steam generator
d. Steam Generator Level	2 per steam generator
e. Auxiliary Feedwater Flow	2 per steam generator
4. Decay Heat Removal (via Shutdown Cooling System)	
a. Shutdown Cooling Heat Exchanger Temperature	2
b. Shutdown Cooling Flow	2
5. Reactor Coolant System Inventory Control	
a. Pressurizer Level	2



Precedents

- Vogtle Electric Generating Plant, Units 1 and 2, and Joseph M. Farley Nuclear Plant, Units 1 and 2, included TSTF-266 in LARs that adopted several TSTF travelers. Applications approved by LAs 180/161 on June 9, 2016 (ADAMS Accession Number ML15132A569), and 203/188 on August 3, 2016 (ADAMS Accession Number ML15233A448), respectively.
- TVA Sequoyah Nuclear Plant incorporated TSTF-266 as part of their conversion to the Improved TS (ADAMS Accession Numbers ML15238B460, ML15236A351, ML15258A511, ML15254A509, and ML15258A516).
- Watts Bar Nuclear Plant adopted TSTF-266, documented in NRC letter dated March 18, 2019 (ADAMS Accession Number ML19066A009).



Submittal Timeline

- Submit to NRC April 2023
- Estimated 1-yr NRC review time
- Requesting a 90-day implementation time



Questions