# TSTF

#### TECHNICAL SPECIFICATIONS TASK FORCE A JOINT OWNERS GROUP ACTIVITY

DATE

#### DRAFT TSTF-17-01 REVISION 3 PROJ0753

Attn: Document Control Desk U. S. Nuclear Regulatory Commission Washington, DC 20555-0001

SUBJECT:	Response to NRC Questions on TSTF-505-A, "Provide Risk-Informed Extended Completion Times"
Reference:	Letter from T. McGinty and A. Boland (NRC) to Technical Specifications Task Force (TSTF), "Issues with Technical Specifications Task Force Traveler TSTF-505, Revision 1, 'Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b'," dated November 15, 2016

In the referenced letter, the NRC raised concerns with approved TSTF traveler, TSTF-505-A, Revision 1, "Provide Risk-Informed Extended Completion Times." The NRC published in the Federal Register a notice of availability for the Model Safety Evaluation (SE) for plant-specific adoption of TSTF traveler TSTF-505, Revision 1, on March 15, 2012. Currently, several licensees have License Amendment Requests (LARs) under NRC review to adopt risk-informed Completion Times.

On December 13, 2016, the TSTF and the Nuclear Energy Institute (NEI) met with the NRC to discuss the NRC's concerns. Most of the NRC concerns were related to proposed Technical Specifications (TS) Actions related to all trains of a TS required system being inoperable. The industry proposed the following short-term and long-term actions to resolve the NRC concerns:

- 1. The industry will pursue development of a companion traveler for TSTF-505-A that addresses the NRC issues with Actions related to inoperability of all trains of a TS required system. Following approval, plants that have adopted TSTF-505-A without these Actions could submit a LAR to adopt the companion traveler. Following NRC approval of the companion traveler, plants that have not adopted TSTF-505-A can adopt TSTF-505-A and the companion traveler in a single LAR.
- 2. TSTF-505-A allows licensees to choose which Action changes are included in their LAR. The TSTF will recommend to the industry that until the companion traveler is approved by the NRC, licensees submitting LARs to adopt TSTF-505 follow the guidance in the attachments to this letter. Actions related to the inoperability of all trains of a TS required system should not be included in LARs submitted prior to approval of the companion traveler. Omitting these Actions and incorporating the other changes recommended in the



attachments to this letter should allow timely approval of LARs. Attachment 1 contains a list of the Actions revised by TSTF-505-A that should be omitted in LARs submitted prior to approval of the companion traveler. Attachment 1 also includes conforming changes to the TSTF-505-A Section 1.3 TS example and the TS Section 5.5 Administrative Controls program. Attachment 2 contains a list of Actions revised by TSTF-505-A that have conditions on their inclusion in a plant-specific LAR. Attachment 3 contains a revised Mode Application for requesting adoption of TSTF-505-A.

3. The proposed actions only apply to future submittals. The licensees with LARs currently under NRC review will decide how to proceed.

The TSTF requests that the NRC rescind the suspension of the approval of TSTF-505-A, Revision 1, and accept LARs to adopt TSTF-505-A that follow the recommendations in the attachments to this letter.

Should you have any questions, please do not hesitate to contact us.

James R. Morris (PWROG/W)

Lisa L. Williams (BWROG)

Otto W. Gustafson (PWROG/CE)

Jordan Vaughan (PWROG/B&W)

Jason P. Redd (APOG)

Enclosure

cc: Mirella Gavrilas, Director of the Division of Safety Systems Anne T. Boland, Director of the Division of Operating Reactor Licensing Jennifer Whitman, Acting Chief of the Technical Specifications Branch Michelle Honcharik, Technical Specifications Branch

Specification	5-505 Markup to NUREG-1430, Babcock and V Specification Title	Notes
1.3	Completion Times	See attached recommended changes
Action 3.3.1.C	RPS Instrumentation	Do not include
Action 3.3.2.A	Reactor Protection System (RPS) Manual Reactor Trip	Do not include.
Action 3.3.5.B	ESFAS Instrumentation	Do not include
Action 3.3.6.B	ESFAS Manual Initiation	Do not include
Action 3.3.11.D	EFIC System Instrumentation	Do not include
Action 3.3.13.B	EFIC Logic	Do not include
Action 3.3.14.B	EFIC-EFW- Vector Valve Logic	Do not include
Action 3.4.10.A	Pressurizer Safety Valves	Do not include.
Action 3.4.14.C	RCS Pressure Isolation Valve (PIV) Leakage	Do not include.
Action 3.5.1.A	CFTs	Do not include
Action 3.5.1.B	CFTs	Do not include
Action 3.5.1.C	CFTs	Do not include
Action 3.5.2.C	ECCS - Operating	Do not include
Action 3.5.3.B	ECCS - Shutdown	Do not include.
Action 3.5.4.A	BWST	Do not include
Action 3.5.4.B	BWST	Do not include
Action 3.6.3.B	Containment Isolation Valves	Do not include
Action 3.6.3.D	Containment Isolation Valves	Do not include
Action 3.6.6.F	Containment Spray and Cooling Systems	Do not include
Action 3.7.2.C	MSIVs	Do not include
Action 3.7.4.B	AVVs	Do not include.
Action 3.7.5.C	EFW System	Do not include
Action 3.7.6.A	CST	Do not include.
Action 3.7.8.B	SWS	Do not include

### TSTF-505 Markup to NUREG-1430, Babcock and Wilcox STS

Specification	Specification Title	Notes
Action 3.7.9.C	UHS	Do not include
Action 3.7.11.B	CREVS	Do not include
Action 3.8.1.E	AC Sources - Operating	Do not include
Action 3.8.1.G	AC Sources - Operating	Do not include
Action 3.8.4.A.1	DC Sources - Operating	Do not include. Required Action outside the scope of TSTF-505.
Action 3.8.4.D	DC Sources - Operating	Do not include
Action 3.8.7.B	Inverters - Operating	Do not include
Action 3.8.9.D	Distribution Systems - Operating	Do not include
5.5.18	Risk Informed Completion Time Program	See attached recommended changes

### TSTF-505 Markup to NUREG-1430, Babcock and Wilcox STS

Specification	STF-505 Markup to NUREG-1431, Westi Specification Title	Notes
1.3	Completion Times	See attached recommended changes
Action 3.3.1.C	RTS Instrumentation	Do not include
Action 3.3.1.E	RTS Instrumentation	Do not include
Action 3.3.1.G	RTS Instrumentation	Do not include
Action 3.3.1.I	RTS Instrumentation	Do not include
Action 3.3.1.Q	RTS Instrumentation	Do not include
Action 3.3.1.S	RTS Instrumentation	Do not include
Action 3.3.1.T	RTS Instrumentation	Do not include
Action 3.3.1.V	RTS Instrumentation	Do not include
Action 3.3.1.W	RTS Instrumentation	Do not include
Action 3.3.1.Z	RTS Instrumentation	Do not include
Action 3.3.1.CC	RTS Instrumentation	Do not include
Action 3.3.1.EE	RTS Instrumentation	Do not include
Action 3.3.1.JJ	RTS Instrumentation	Do not include
Action 3.3.2.C	ESFAS Instrumentation	Do not include
Action 3.3.2.E	ESFAS Instrumentation	Do not include
Action 3.3.2.G	ESFAS Instrumentation	Do not include
Action 3.3.2.I	ESFAS Instrumentation	Do not include
Action 3.3.2.K	ESFAS Instrumentation	Do not include
Action 3.3.2.M	ESFAS Instrumentation	Do not include
Action 3.3.2.0	ESFAS Instrumentation	Do not include
Action 3.3.2.Q	ESFAS Instrumentation	Do not include
Action 3.3.2.S	ESFAS Instrumentation	Do not include
Action 3.3.2.U	ESFAS Instrumentation	Do not include

### TSTF-505 Markup to NUREG-1431, Westinghouse STS

Specification	TF-505 Markup to NUREG-1431, Westingh Specification Title	Notes
Action 3.3.2.V	ESFAS Instrumentation	Do not include. Required Action outside the scope of TSTF-505.
Action 3.3.9.B	BDPS	Do not include
Action 3.4.9.C	Pressurizer	Do not include.
Action 3.4.10.A	Pressurizer Safety Valves	Do not include.
Action 3.4.11.E	Pressurizer Power Operated Relief Valves (PORVs)	Do not include.
Action 3.4.11.F	Pressurizer Power Operated Relief Valves (PORVs)	Do not include.
Action 3.4.14.C	RCS Pressure Isolation Valve (PIV) Leakage	Do not include.
Action 3.5.1.A	Accumulators	Do not include.
Action 3.5.1.B	Accumulators	Do not include.
Action 3.5.1.C	Accumulators	Do not include.
Action 3.5.2.B	ECCS - Operating	Do not include.
Action 3.5.3.B	ECCS - Shutdown	Do not include.
Action 3.5.4.A	RWST	Do not include.
Action 3.5.4.B	RWST	Do not include.
Action 3.5.6.A	Boron Injection Tank	Do not include.
Action 3.6.3.B	Containment Isolation Valves	Do not include.
Action 3.6.3.C	Containment Isolation Valves	Do not include.
Action 3.6.3.D	Containment Isolation Valves	Do not include.
Action 3.6.3.E	Containment Isolation Valves	Do not include.
Action 3.6.6A.E	Containment Spray and Cooling Systems (Atmospheric and Dual)	Do not include.
Action 3.6.6B.G	Containment Spray and Cooling Systems (Atmospheric and Dual)	Do not include.
Action 3.6.6C.B	Containment Spray System (Ice Condenser)	Do not include.
Action 3.6.6D.B	QS System (Subatmospheric)	Do not include.
Action 3.6.6E.F	RS System (Subatmospheric)	Do not include.

### TSTF-505 Markup to NUREG-1431, Westinghouse STS

Specification	Specification Title	Notes
Action 3.6.9.B	Hydrogen Mixing System	Do not include.
Action 3.6.10.C	HIS (Ice Condenser)	Do not include.
Action 3.6.14.B	ARS (Ice Condenser)	Do not include.
Action 3.6.15.A	Ice Bed	Do not include.
Action 3.6.17.A	Divider Barrier Integrity (Ice Condenser)	Do not include.
Action 3.6.17.B	Divider Barrier Integrity (Ice Condenser)	Do not include.
Action 3.6.18.A	Containment Recirculation Drains (Ice Condenser)	Do not include.
Action 3.6.18.B	Containment Recirculation Drains (Ice Condenser)	Do not include.
Action 3.7.2.C	MSIVs	Do not include.
Action 3.7.5.C	AFW System	Do not include.
Action 3.7.6.A	Condensate Storage Tank	Do not include.
Action 3.7.7.B	CCW System	Do not include.
Action 3.7.8.B	SWS	Do not include.
Action 3.7.9.C	UHS	Do not include.
Action 3.7.11.B	CREATCS	Do not include.
Action 3.8.1.E	AC Sources - Operating	Do not include
Action 3.8.1.G	AC Sources - Operating	Do not include
Action 3.8.4.A.1	DC Sources - Operating	Do not include. Required Action outside the scope of TSTF-505.
Action 3.8.4.D	DC Sources - Operating	Do not include
Action 3.8.7.B	Inverters - Operating	Do not include
Action 3.8.9.D	Distribution Systems - Operating	Do not include
5.5.18	Risk Informed Completion Time Program	See attached Recommended Changes

### TSTF-505 Markup to NUREG-1431, Westinghouse STS

Specification	5 Markup to NUREG-1432, Combustion En Specification Title	Notes
1.3	Completion Times	See attached recommended changes
Action 3.3.4.B	ESFAS Instrumentation (Analog)	Do not include.
Action 3.3.5.B	ESFAS Logic and Manual Trip (Analog)	Do not include.
Action 3.3.5.E	ESFAS Logic and Manual Trip (Analog)	Do not include.
Action 3.3.6.A	ESFAS Logic and Manual Trip (Digital)	Do not include.
Action 3.3.6.E	ESFAS Logic and Manual Trip (Digital)	Do not include.
Action 3.4.9.C	Pressurizer	Do not include.
Action 3.4.10.A	Pressurizer Safety Valves	Do not include.
Action 3.4.11.E	Pressurizer Power Operated Relief Valves (PORVs)	Do not include.
Action 3.4.11.F	Pressurizer Power Operated Relief Valves (PORVs)	Do not include.
Action 3.4.14.C	RCS Pressure Isolation Valve (PIV) Leakage	Do not include.
Action 3.5.1.A	SITs	Do not include.
Action 3.5.1.B	SITs	Do not include.
Action 3.5.1.C	SITs	Do not include.
Action 3.5.2.C	ECCS - Operating	Do not include.
Action 3.5.3.A	ECCS - Shutdown	Do not include.
Action 3.5.4.A	RWT	Do not include.
Action 3.5.4.B	RWT	Do not include.
Action 3.6.3.C	Containment Isolation Valves	Do not include.
Action 3.6.3.E	Containment Isolation Valves	Do not include.
Action 3.6.3.F	Containment Isolation Valves	Do not include.
Action 3.6.6A.F	Containment Spray and Cooling Systems (Atmospheric and Dual)	Do not include.
Action 3.6.6B.F	Containment Spray and Cooling Systems (Atmospheric and Dual)	Do not include.
Action 3.6.9.B	Hydrogen Mixing System	Do not include.
Action 3.7.2.C	MSIVs	Do not include.

### TSTF-505 Markup to NUREG-1432, Combustion Engineering STS

Specification	5 Markup to NUREG-1432, Combustion I Specification Title	Notes
Action 3.7.4.B	Atmospheric Dump Valves	Do not include.
Action 3.7.5.C	AFW System	Do not include.
Action 3.7.6.A	Condensate Storage Tank	Do not include.
Action 3.7.7.B	CCW System	Do not include.
Action 3.7.8.B	SWS	Do not include.
Action 3.7.9.C	UHS	Do not include.
Action 3.7.10.B	ECW	Do not include.
Action 3.7.12.B	CREATCS	Do not include.
Action 3.8.1.E	AC Sources - Operating	Do not include.
Action 3.8.1.G	AC Sources - Operating	Do not include
Action 3.8.4.A.1	DC Sources - Operating	Do not include. Required Action outside the scope of TSTF-505.
Action 3.8.4.D	DC Sources - Operating	Do not include
Action 3.8.7.B	Inverters - Operating	Do not include
Action 3.8.9.D	Distribution Systems - Operating	Do not include
5.5.18	Risk Informed Completion Time Program	See attached recommended changes

### TSTF-505 Markup to NUREG-1432, Combustion Engineering STS

Specification	Specification Title	Notes
1.3	Completion Times	See attached recommended changes
Action 3.1.7.A	SLC System	Do not include.
Action 3.1.7.C	SLC System	Do not include.
Action 3.3.1.1.C	Reactor Protection System (RPS) Instrumentation	Do not include.
Action 3.3.4.1.B	End of Cycle Recirculation Pump Trip (EOC- RPT) Instrumentation	Do not include.
Action 3.3.4.2.B	Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation	Do not include.
Action 3.3.4.2.C	Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT)	Do not include.
Action 3.3.5.2.C	Reactor Core Isolation Cooling (RCIC) System Instrumentation	Do not include.
Action 3.3.6.1.B	Primary Containment Isolation Instrumentation	Do not include.
Action 3.3.6.3.C	LLS Instrumentation	Do not include.
Action 3.3.6.3.D	LLS Instrumentation	Do not include.
Action 3.4.3.B	S/RVs	Do not include.
Action 3.5.1.G	ECCS - Operating	Do not include.
Action 3.5.1.I	ECCS - Operating	Do not include.
Action 3.6.1.3.B	PCIVs	Do not include. Required Action outside the scope of TSTF-505.
Action 3.6.1.3.C	PCIVs	Do not include. Required Action outside the scope of TSTF-505.
Action 3.6.2.3.B	Residual Heat Removal (RHR) Suppression Pool Cooling	Do not include.
Action 3.6.2.4.B	Residual Heat Removal (RHR) Suppression Pool Spray	Do not include.
Action 3.6.3.3.B	Containment Atmosphere Dilution (CAD) System	Do not include.
Action 3.7.1.D	Residual Heat Removal Service Water (RHRSW) System	Do not include.
Action 3.7.2.F	[PSW] System and [UHS]	Do not include.
Action 3.7.5.B	[Control Room AC] System	Do not include.
Action 3.8.1.E	AC Sources - Operating	Do not include

### TSTF-505 Markup to NUREG-1433, BWR/4 STS

Specification	Specification Title	Notes
Action 3.8.1.G	AC Sources - Operating	Do not include
Action 3.8.4.A.1	DC Sources - Operating	Do not include. Required Action outside the scope of TSTF-505.
Action 3.8.4.D	DC Sources - Operating	Do not include
Action 3.8.7.B	Inverters - Operating	Do not include
Action 3.8.9.D	Distribution Systems - Operating	Do not include
5.5.15	Risk Informed Completion Time Program	See attached recommended changes

### TSTF-505 Markup to NUREG-1433, BWR/4 STS

Specification	Specification Title	Notes
1.3	Completion Times	See attached recommended changes
Action 3.1.7.A	SLC System	Do not include.
Action 3.1.7.C	SLC System	Do not include.
Action 3.3.1.1.C	Reactor Protection System (RPS) Instrumentation	Do not include.
Action 3.3.4.1.B	End of Cycle Recirculation Pump Trip (EOC- RPT) Instrumentation	Do not include.
Action 3.3.4.2.B	Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation	Do not include.
Action 3.3.4.2.C	Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation	Do not include.
Action 3.3.5.2.C	Reactor Core Isolation Cooling (RCIC) System Instrumentation	Do not include.
Action 3.3.6.1.B	Primary Containment Isolation Instrumentation	Do not include.
Action 3.3.6.4.B	Suppression Pool Makeup (SPMU) System Instrumentation	Do not include.
Action 3.3.6.4.C	Suppression Pool Makeup (SPMU) System Instrumentation	Do not include.
Action 3.3.6.5.B	Relief and LLS Instrumentation	Do not include.
Action 3.4.4.B	S/RVs	Do not include.
Action 3.5.1.G	ECCS - Operating	Do not include.
Action 3.5.1.I	ECCS - Operating	Do not include.
Action 3.5.1.J	ECCS - Operating	Do not include.
Action 3.5.1.K	ECCS - Operating	Do not include.
Action 3.5.1.L	ECCS - Operating	Do not include.
Action 3.6.1.3.B	Primary Containment Isolation Valves (PCIVs)	Do not include.
Action 3.6.1.3.C	Primary Containment Isolation Valves (PCIVs)	Do not include.
Action 3.6.1.3.D	Primary Containment Isolation Valves (PCIVs)	Do not include.
Action 3.6.1.7.B	Residual Heat Removal (RHR) Containment Spray System	Do not include.
Action 3.6.2.3.B	Residual Heat Removal (RHR) Suppression Pool Cooling	Do not include.
Action 3.6.2.4.A	SPMU System	Do not include.

# TSTF-505 Markup to NUREG-1434, BWR/6 STS

Specification	Specification Title	Notes
Action 3.6.2.4.B	SPMU System	Do not include.
Action 3.6.2.4.D	SPMU System	Do not include.
Action 3.6.3.1.B	Drywell Cooling System Fans	Do not include.
Action 3.6.3.2.B	Drywell Purge System	Do not include.
Action 3.6.5.1.A	Drywell	Do not include.
Action 3.6.5.3.B	Drywell Isolation Valve[s]	Do not include.
Action 3.6.5.6.D	Drywell Vacuum Relief System	Do not include.
Action 3.6.5.6.E	Drywell Vacuum Relief System	Do not include.
Action 3.6.5.6.F	Drywell Vacuum Relief System	Do not include.
Action 3.7.1.D	[SSW] System and [UHS]	Do not include.
Action 3.7.4.B	[Control Room AC] System	Do not include.
Action 3.8.1.E	AC Sources - Operating	Do not include
Action 3.8.1.G	AC Sources - Operating	Do not include
Action 3.8.4.A.1	DC Sources - Operating	Do not include. Required Action outside the scope of TSTF-505.
Action 3.8.4.D	DC Sources - Operating	Do not include
Action 3.8.7.B	Inverters - Operating	Do not include
Action 3.8.9.D	Distribution Systems - Operating	Do not include
5.5.15	Risk Informed Completion Time Program	See attached recommended changes

### TSTF-505 Markup to NUREG-1434, BWR/6 STS

# **Recommended Changes to the Section 1.3 Example**

------ Reviewer's Note ------- Example 1.3-8 is only applicable to plants that have adopted the Risk Informed Completion Time Program.

#### EXAMPLE 1.3-8

#### ACTIONS

[

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One subsystem inoperable.	A.1 Restore subsystem to OPERABLE status.	7 days <u>OR</u> In accordance with the Risk Informed Completion Time Program
B NOTE Not applicable when second subsystem intentionally made inoperable.	B.1 Restore subsystems to OPERABLE status.	1 hour OR In accordance with the Risk Informed Completion Time Program
BC.Required Action and associated Completion	BC.1 Be in MODE 3.	6 hours
Time not met.	BC.2 Be in MODE 5.	36 hours

#### **Recommended Changes to the Section 1.3 Example**

When a subsystem is declared inoperable, Condition A is entered. The 7 day Completion Time may be applied as discussed in Example 1.3-2. However, the licensee may elect to apply the Risk Informed Completion Time Program which permits calculation of a Risk Informed Completion Time (RICT) that may be used to complete the Required Action beyond the 7 day Completion Time. The RICT cannot exceed 30 days. After the 7 day Completion Time has expired, the subsystem must be restored to OPERABLE status within the RICT or Condition BC must also be entered.

If a second subsystem is declared inoperable, Condition B may also be entered. The Condition is modified by a Note stating it is not applicable if the second subsystem is intentionally made inoperable. The Required Actions of Condition B are not intended for voluntary removal of redundant subsystems from service. The Required Action is only applicable if one subsystem is inoperable for any reason and the second subsystem is found to be inoperable, or if both subsystems are found to be inoperable at the same time. If Condition B is applicable, at least one subsystem must be restored to OPERABLE status within 1 hour or Condition C must also be entered. The licensee may be able to apply a RICT to extend the Completion Time beyond 1 hour if the requirements of the Risk Informed Completion Time Program are met. If two subsystems are inoperable and Condition B is not applicable (i.e., the second subsystem was intentionally made inoperable), LCO 3.0.3 is entered as there is no applicable Condition.

The Risk Informed Completion Time Program requires recalculation of the RICT to reflect changing plant conditions. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.

If the 7 day Completion Time clock of Condition A or the 1 hour Completion Time clock of Condition B have has expired and subsequent changes in plant condition result in exiting the applicability of the Risk Informed Completion Time Program without restoring the inoperable subsystem to OPERABLE status, Condition BC is also entered and the Completion Time clocks for Required Actions BC.1 and BC.2 start.

If the RICT expires or is recalculated to be less than the elapsed time since the Condition was entered and the inoperable subsystem has not been restored to OPERABLE status, Condition BC is also entered and the Completion Time clocks for Required Actions BC.1 and BC.2 start. If the inoperable subsystems are restored to OPERABLE status after Condition BC is entered, Conditions A, B, and BC are exited, and therefore, the Required Actions of Condition BC may be terminated. ]

#### **Recommended Changes to the Risk Informed Completion Time Program**

#### [ 5.5.18 Risk Informed Completion Time Program

This program provides controls to calculate a Risk Informed Completion Time (RICT) and must be implemented in accordance with NEI 06-09-A, Revision 0, "Risk-Managed Technical Specifications (RMTS) Guidelines." The program shall include the following:

a. The RICT may not exceed 30 days;

------ REVIEWER'S NOTE ------The Risk Informed Completion Time is only applicable in MODES supported by the Licensees PRA. Licensee's applying the RICT Program to MODES other than Modes 1 and 2 must demonstrate that they have the capability to calculate a RICT in those MODES or that the risk indicated by their MODE 1 and 2 PRA model is bounding with respect to the lower MODE conditions.

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- b. A RICT may only be utilized in MODE 1, 2 [, and 3, and MODE 4 while relying on steam generators for heat removal];
- c. When a RICT is being used, any *change to the* plant configuration, *as defined in NEI 06-09-A, Appendix A, change within the scope of the Risk Informed* Completion Time Program must be considered for the effect on the RICT.
  - 1. For planned changes, the revised RICT must be determined prior to implementation of the change in configuration.
  - 2. For emergent conditions, the revised RICT must be determined within the time limits of the Required Action Completion Time (i.e., not the RICT) or 12 hours after the plant configuration change, whichever is less.
  - 3. Revising the RICT is not required If the plant configuration change would lower plant risk and would result in a longer RICT.
- d. Use of a RICT is not permitted for voluntary entry into a configuration which represents a loss of a specified safety function or inoperability of all required trains of a system required to be OPERABLE.
- e. Use of a RICT is permitted for emergent conditions which represent a loss of a specified safety function or inoperability of all required trains of a system required to be OPERABLE if one or more of the trains are considered "PRA functional" as defined in Section 2.3.1 of NEI 06-09.]

#### **Recommended Changes to the Risk Informed Completion Time Program**

- d. If the extent of condition evaluation for inoperable structures, systems, or components (SSCs) is not complete prior to exceeding the Completion Time, the RICT shall account for the increased possibility of common cause failure (CCF) by either:
  - 1. Numerically accounting for the increased possibility of CCF in the RICT calculation; or
  - 2. Risk Management Actions (RMAs) not already credited in the RICT calculation shall be implemented that support redundant or diverse SSCs that perform the function(s) of the inoperable SSCs, and, if practicable, reduce the frequency of initiating events that challenge the function(s) performed by the inoperable SSCs.
- e. [This paragraph will describe when prior NRC approval is needed for changes to the methodology used to calculate a RICT. The wording for this provision is currently under discussion between the NRC and the industry.]

#### Discussion of Recommended Changes to the Risk Informed Completion Time Program

- 1. The reference to NEI 06-09 is revised to refer to the approved version, NEI 06-09-A, Revision 0.
- 2. Paragraphs d. and e. of TSTF-505 are deleted. These paragraphs discuss determining a RICT when all trains of a system are inoperable and are not applicable to the near-term submittals that are the subject of this letter.
- 3. The NRC questioned the difference between the TSTF-505 Risk Informed Completion Time (RICT) Program in paragraph 5.5.c and the NEI 06-09 Configuration Risk Management Program (CRMP). The traveler justification stated that the TS Section 5.5 RICT Program was the same as the NEI 06-09 CRMP; however, users of the TS may not have TSTF-505 available, which may lead to confusion when applying NEI 06-09 in accordance with the TS 5.5 RICT Program. The program was revised to clarify the application of the requirements.
- 4. A new paragraph d. is added addressing common cause failure considerations.
- 5. A new paragraph e. is added. The NRC's Safety Evaluation for NEI 06-09 stated:

As part of its review and approval of a licensee's application requesting to implement the RMTS, the NRC staff intends to impose a license condition that will explicitly address the scope of the PRA and non-PRA methods approved by the NRC staff for use in the plant-specific RMTS program. If a licensee wishes to change its methods, and the change is outside the bounds of the license condition, the licensee will need NRC approval, via a license amendment, of the implementation of the new method in its RMTS program. The focus of the NRC staff's review and approval will be on the

### **Recommended Changes to the Risk Informed Completion Time Program**

technical adequacy of the methodology and analyses relied upon for the RMTS application.

There is no legal difference between a license condition and a Technical Specification and it is less error prone to put all requirements related to calculation of a RICT in the same location. Therefore, in lieu of a license condition, the restriction is added as paragraph e. of the program.

	NUREG-1430, Babcock and Wilcox STS		
Specification	LCO Requirements and Condition	Condition on Use	
3.3.8.B	LCO: Three channels of loss of voltage Function and three channels of degraded voltage Function EDG LOPS instrumentation per EDG shall be OPERABLE. Condition: One or more Functions with two or more channels per EDG inoperable.	Licensee must justify that two <i>or more</i> channels per EDG inoperable is not a condition in which all required trains or subsystems of a TS required system are inoperable or modify the Action to not apply a RICT when all required trains or subsystems are inoperable. See Note 1 at the end of Attachment 2.	
3.3.12.B	<ul> <li>LCO: Two manual initiation switches per actuation channel for each of the following emergency feedwater initiation and control (EFIC) Functions shall be OPERABLE:</li> <li>a. Steam generator (SG) A Main Feedwater (MFW) Isolation,</li> <li>b. SG B MFW Isolation,</li> <li>c. SG A Main Steam Line Isolation, and</li> <li>e. Emergency Feedwater Actuation.</li> <li>Condition: One or more EFIC Function(s) with one or both manual initiation switches inoperable in both actuation channels.</li> </ul>	Licensee must justify that one <i>or both</i> channels inoperable is not a condition in which all required trains or subsystems of a TS required system are inoperable or modify the Action to not apply a RICT when all required trains or subsystems are inoperable. See Note 1 at the end of Attachment 2.	

### NUREG-1430, Babcock and Wilcox STS

NUREG-1430, Babcock and Wilcox STS		
Specification	LCO Requirements and Condition	Condition on Use
3.4.9.C	LCO: The pressurizer shall be OPERABLE. Condition: Capacity of pressurizer heaters [capable of being powered by emergency power supply] less than limit.	Pressurizer is typically not modeled in the PRA. Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.
3.5.2.B	<b>LCO:</b> Two ECCS trains shall be OPERABLE. <b>Condition:</b> One or more [ECCS] trains inoperable for reasons other than one LPI subsystem inoperable.	Licensee must justify that one <i>or more</i> ECCS trains inoperable is not a condition in which all required trains or subsystems of a TS required system are inoperable or modify the Action to not apply a RICT when all required trains or subsystems are inoperable.

### NUREG-1430, Babcock and Wilcox STS

	NUREG-1430, Babcock and Wilcox STS		
Specification	LCO Requirements and Condition	Condition on Use	
3.6.2.C	LCO: [Two] containment air lock[s] shall be OPERABLE. Condition: One or more containment air locks inoperable for reasons other than an inoperable door or inoperable interlock mechanism.	Licensee must justify that an inoperable containment air lock is not a condition in which all required trains or subsystems of a TS required system are inoperable. An acceptable argument may be that a note in TS 3.6.2 requires the condition to be assessed in accordance with TS 3.6.1, Containment Integrity, and any loss of function would require an immediate plant shutdown under that TS.	
3.6.6	<ul> <li>LCO: Containment Spray and Cooling Systems</li> <li>Condition A: One containment spray train</li> <li>inoperable</li> <li>Condition C: One [required] containment cooling</li> <li>train inoperable.</li> <li>Condition D: One containment spray train and one</li> <li>[required] containment cooling train inoperable.</li> <li>Condition E: Two [required] containment cooling</li> <li>trains inoperable.</li> </ul>	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.	

### NUREG-1430, Babcock and Wilcox STS

Smaaifi aadi	NUREG-1431, Westinghouse STS	Condition on Use
Specification	LCO Requirements and Condition	Condition on Use
3.3.1.F	LCO: The RTS instrumentation for each Function in Table 3.3.1-1 shall be OPERABLE. Condition: One Power Range Neutron Flux - High channel inoperable.	Licensee must justify that the condition does not represent the inability to perform the safety function assumed in the FSAR given the loss of spacial distribution of the remaining Power Range detectors. The justification can include that the Actions require periodic monitoring of spacial power distribution and imposition of compensatory limits and reduced power.
3.3.1.DD	LCO: The RTS instrumentation for each Function in Table 3.3.1-1 shall be OPERABLE. Condition: One RTB train inoperable.	The licensee must include information regarding how the TSTF-411 conditions and limitations will be implemented (or similar conditions if TSTF-411 has not been adopted), including discussion of ATWS Mitigation System Actuation (AMSAC), and why those actions are sufficient, including a discussion of defense in depth.

~	NUREG-1431, Westinghouse STS	~ ~ ~ ~ ~ ~ ~
Specification	LCO Requirements and Condition	Condition on Use
3.3.5.B	LCO: [Three] channels per bus of the loss of	Licensee must justify
	voltage Function and [three] channels per bus of the	that two or more
	degraded voltage Function shall be OPERABLE.	channels per bus
	<b>Condition:</b> One or more Functions with two or	inoperable is not a
	more channels per bus inoperable.	condition in which all
		required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
3.3.9.A	LCO: Boron Dilution Protection System (BDPS)	BDPS is typically not
	<b>Condition:</b> One train inoperable (applicable to	modeled in the PRA.
	MODES [2,] 3, 4, and 5.)	Licensee must justify
		the ability to calculate a
		RICT for the condition,
		including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
3.4.9.B	<b>LCO:</b> The pressurizer shall be OPERABLE	Pressurizer is typically
	<b>Condition:</b> One [required] group of pressurizer	not modeled in the
	heaters inoperable.	PRA. Licensee must
	1	justify the ability to
		calculate a RICT for
		the condition, including
		how the system is
		modeled in the PRA,
		whether all functions of
		the system are
		modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
	<u>I</u>	

	NUREG-1431, Westinghouse STS	Γ
Specification	LCO Requirements and Condition	Condition on Use
3.5.2.A	LCO: Two ECCS trains shall be OPERABLE. Condition: One or more [ECCS] trains inoperable.	Licensee must justify that one <i>or more</i> ECCS trains inoperable is not a condition in which all required trains or subsystems of a TS required system are inoperable. Acceptable justification is TS Condition requiring 100% flow equivalent to a single ECCS train.
3.6.2.C	LCO: [Two] containment air lock[s] shall be OPERABLE. Condition: One or more containment air locks inoperable for reasons other than an inoperable door or inoperable interlock mechanism.	Licensee must justify that an inoperable containment air lock is not a condition in which all required trains or subsystems of a TS required system are inoperable. An acceptable argument may be that a note in TS 3.6.2 requires the condition to be assessed in accordance with TS 3.6.1, Containment Integrity, and any loss of function would require an immediate plant shutdown under that TS.
3.6.6A	<ul> <li>LCO: Containment Spray and Cooling Systems (Atmospheric and Dual) (Credit taken for iodine removal by the Containment Spray System)</li> <li>Condition A: One containment spray train inoperable.</li> <li>Condition C: One [required] containment cooling train inoperable.</li> <li>Condition D: Two [required] containment cooling trains inoperable.</li> </ul>	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.

NUREG-1431, Westinghouse STS		
Specification	LCO Requirements and Condition	Condition on Use
3.6.6B	<ul> <li>LCO: Containment Spray and Cooling Systems (Atmospheric and Dual (Credit not taken for iodine removal by the Containment Spray System)</li> <li>Condition A: One containment spray train inoperable.</li> <li>Condition B: One [required] containment cooling train inoperable.</li> <li>Condition C: Two containment spray trains inoperable.</li> <li>Condition D: One containment spray train and one [required] containment cooling train inoperable.</li> <li>Condition E: Two [required] containment cooling trains inoperable.</li> </ul>	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.
3.6.6C.A	LCO: Containment Spray System (Ice Condenser) Condition: One containment spray train inoperable.	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.
3.6.6D.A	LCO: Quench Spray (QS) System (Subatmospheric) Condition: One QS train inoperable	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.

Spacification	NUREG-1431, Westinghouse STS	Condition on Use
<b>Specification</b>	LCO Requirements and Condition	Condition on Use
3.6.6E	LCO: Recirculation Spray (RS) System	Licensee must justify
	(Subatmospheric)	the ability to calculate a RICT for the condition,
	<b>Condition A:</b> One RS subsystem inoperable. <b>Condition B:</b> Two RS subsystems inoperable in	including how the
	one train.	system is modeled in
	<b>Condition C:</b> Two inside RS subsystems	the PRA, whether all
	inoperable	functions of the system
	<b>Condition D:</b> Two outside RS subsystems	are modeled, and, if a
	inoperable.	surrogate is used, why
	<b>Condition E:</b> Casing cooling tank inoperable.	that modeling is
	······································	conservative.
3.6.16.A	LCO: The ice condenser inlet doors, intermediate	Licensee must justify
	deck doors, and top deck [doors] shall be	that one <i>or more</i>
	OPERABLE and closed.	inoperable doors is not
	<b>Condition:</b> One or more ice condenser doors	a condition in which all
	physically restrained from opening	required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
2745		Attachment 2.
3.7.4.B	LOC: [Three] Atmospheric Dump Valves (ADV)	Licensee must justify
	lines shall be OPERABLE.	that two <i>or more</i>
	<b>Condition:</b> Two or more required ADV lines	inoperable ADVs is not
	inoperable	a condition in which all
		required trains or subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.

	NUREG-1432, Combustion Engineering STS		
Specification	LCO Requirements and Condition	Condition on Use	
3.3.6.C	<b>LCO:</b> [Four] channels of Loss of Voltage Function	Licensee must justify	
(analog)	and [four] channels of Degraded Voltage Function	that more than two	
	auto-initiation instrumentation per DG shall be	channels per bus	
	OPERABLE.	inoperable is not a	
	<b>Condition:</b> One or more Functions with more than	condition in which all	
	two channels inoperable.	required trains or	
		subsystems of a TS	
		required system are	
		inoperable or modify	
		the Action to not apply	
		a RICT when all	
		required trains or	
		subsystems are	
		inoperable. See Note 1	
		at the end of	
		Attachment 2.	
3.4.9.B	<b>LCO:</b> The pressurizer shall be OPERABLE	Pressurizer is typically	
	<b>Condition:</b> One [required] group of pressurizer	not modeled in the	
	heaters inoperable.	PRA. Licensee must	
		justify the ability to	
		calculate a RICT for	
		the condition, including	
		how the system is	
		modeled in the PRA,	
		whether all functions of	
		the system are	
		modeled, and, if a	
		surrogate is used, why	
		that modeling is	
		conservative.	
3.5.2.D	LCO: Two ECCS trains shall be OPERABLE.	Licensee must justify	
	Condition: Less than 100% of the ECCS flow	that one <i>or more</i> ECCS	
	equivalent to a single OPERABLE train available.	trains inoperable is not	
		a condition in which all	
		required trains or	
		subsystems of a TS	
		required system are	
		inoperable. Acceptable	
		justification is TS	
		Condition requiring	
		100% flow equivalent	
		to a single ECCS train.	

### NUREG-1432, Combustion Engineering STS

-	NUREG-1432, Combustion Engineering STS		
Specification	LCO Requirements and Condition	Condition on Use	
3.6.2.C	<b>LCO:</b> [Two] containment air lock[s] shall be OPERABLE. <b>Condition:</b> One or more	Licensee must justify that an inoperable	
		containment air lock is	
	containment air locks inoperable for reasons other		
	than an inoperable door or inoperable interlock	not a condition in	
	mechanism.	which all required	
		trains or subsystems of	
		a TS required system	
		are inoperable. An	
		acceptable argument	
		may be that a note in	
		TS 3.6.2 requires the	
		condition to be	
		assessed in accordance	
		with TS 3.6.1,	
		Containment Integrity,	
		and any loss of	
		function would require	
		an immediate plant	
		shutdown under that TS.	
3.6.6A	LCO: Containment Spray and Cooling Systems	Licensee must justify	
	(Atmospheric and Dual) (Credit taken for iodine	the ability to calculate a	
	removal by the Containment Spray System)	RICT for the condition,	
	Condition A: One containment spray train	including how the	
	inoperable.	system is modeled in	
	Condition C: One containment cooling train	the PRA, whether all	
	inoperable.	functions of the system	
	Condition D: One containment spray and one	are modeled, and, if a	
	containment cooling train inoperable.	surrogate is used, why	
	Condition E: Two containment cooling trains	that modeling is	
	inoperable.	conservative.	

### NUREG-1432, Combustion Engineering STS

	NUKEG-1452, Combustion Engineering 515	
Specification	LCO Requirements and Condition	<b>Condition on Use</b>
3.6.6B	LCO: Containment Spray and Cooling Systems	Licensee must justify
	(Atmospheric and Dual) (Credit not taken for	the ability to calculate a
	iodine removal by the Containment Spray System)	RICT for the condition,
	Condition A: One containment spray train	including how the
	inoperable.	system is modeled in
	Condition B: One containment cooling train	the PRA, whether all
	inoperable.	functions of the system
	Condition C: Two containment spray trains	are modeled, and, if a
	inoperable.	surrogate is used, why
	Condition D: One containment spray train and one	that modeling is
	containment cooling train inoperable.	conservative.
	Condition E: Two containment cooling trains	
	inoperable.	

### NUREG-1432, Combustion Engineering STS

~	NUREG-1433, BWR/4 STS	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Specification	LCO Requirements and Condition	Condition on Use
3.3.1.2.A	<b>LCO:</b> The SRM instrumentation in Table 3.3.1.2-1	Licensee must justify
	shall be OPERABLE.	that one <i>or more</i>
	Condition: One or more required SRMs	inoperable SRMs is not
	inoperable in MODE 2 with intermediate range	a condition in which all
	monitors (IRMs) on Range 2 or below	required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
		Licensee must justify
		the ability to calculate a
		RICT for the condition,
		including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
3.3.2.2.B	LCO: [Three] channels of feedwater and main	Licensee must justify
	turbine high water level trip instrumentation shall	that two <i>or more</i>
	be OPERABLE.	inoperable trip
	<b>Condition:</b> Two or more feedwater and main	channels is not a
	turbine high water level trip channels inoperable.	condition in which all
		required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1 at the end of
		Attachment 2.
	L	Attachiment 2.

Specification	NUREG-1433, BWR/4 STS           LCO Requirements and Condition	Condition on Use
3.3.4.1.A	LCO: End of Cycle Recirculation Pump Trip	Licensee must justify
5.5.4.1.A		5 7
	(EOC-RPT) Instrumentation	that one <i>or more</i>
	Condition: One or more required channels	inoperable EOC-RPT
	inoperable.	channels is not a
		condition in which all
		required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
		Licensee must justify
		the ability to calculate a
		RICT given that EOC-
		RPT channels are not
		typically modeled in
		the PRA.
3.3.6.3.A	LCO: Low-Low Set (LLS) Instrumentation	Licensee must justify
	Condition: One LLS valve inoperable due to	the ability to calculate a
	inoperable channel(s).	RICT for the condition,
	1 (7	including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.

G	NUREG-1433, BWR/4 STS	
Specification	LCO Requirements and Condition	Condition on Use
3.3.8.1.A	<b>LCO:</b> The LOP instrumentation for each Function	Licensee must justify
	in Table 3.3.8.1-1 shall be OPERABLE.	that one or more
	<b>Condition:</b> One or more channels inoperable.	channels inoperable is
		not a condition in
		which all required
		trains or subsystems of
		a TS required system
		are inoperable or
		modify the Action to
		not apply a RICT when
		all required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
3.6.1.2.C	<b>LCO:</b> The primary containment air lock shall be	Licensee must justify
	OPERABLE. Condition: Primary containment air	that an inoperable
	lock inoperable for reasons other than Condition A	containment air lock is
	or B.	not a condition in
		which all required
		trains or subsystems of
		a TS required system
		are inoperable. An
		acceptable argument
		may be that a note in
		TS 3.6.1.2 requires the
		condition to be
		assessed in accordance
		with TS 3.6.1.1,
		Primary Containment,
		and any loss of
		function would require
		an immediate plant
		shutdown under that
		TS.

G 10 /	NUREG-1433, BWR/4 STS	
Specification	LCO Requirements and Condition	Condition on Use
3.6.1.3.E	LCO: Each PCIV, except reactor building-to- suppression chamber vacuum breakers, shall be OPERABLE. Condition: One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.	Licensee must justify that PCIV leakage in excess of the limits is not a condition in which all required trains or subsystems of a TS required system are inoperable. Licensee must justify the ability to calculate a RICT for this inoperability.
3.6.1.7.D	LCO: Each reactor building-to-suppression chamber vacuum breaker shall be OPERABLE. Condition: Two or more lines with one or more reactor building –to-suppression chamber vacuum breakers inoperable for opening.	Licensee must justify that <i>one or more</i> inoperable vacuum breakers on <i>two or</i> <i>more lines</i> is not a condition in which all required trains or subsystems of a TS required system are inoperable or modify the Action to not apply a RICT when all required trains or subsystems are inoperable. See Note 1 at the end of Attachment 2.
3.7.7.A	LCO: The Main Turbine Bypass System shall be OPERABLE. OR The following limits are made applicable: [ a. LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)," limits for an inoperable Main Turbine Bypass System, as specified in the [COLR]; and ] [ b. LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," limits for an inoperable Main Turbine Bypass System, as specified in the [COLR]. ] Condition: [Requirements of the LCO not met or Main Turbine Bypass System inoperable].	Licensee must justify the ability to calculate a RICT for the condition, including how the system is modeled in the PRA, whether all functions of the system are modeled, and, if a surrogate is used, why that modeling is conservative.

	NUKEG-1434, BWK/0 515	
Specification	LCO Requirements and Condition	Condition on Use
3.3.1.2.A	<b>LCO:</b> The SRM instrumentation in Table 3.3.1.2-1	Licensee must justify
	shall be OPERABLE.	that one or more
	<b>Condition:</b> One or more required SRMs	inoperable SRMs is not
	inoperable in MODE 2 with intermediate range	a condition in which all
	monitors (IRMs) on Range 2 or below.	required trains or
		subsystems of a TS
		required system are
		inoperable or modify
		the Action to not apply
		a RICT when all
		required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
		Licensee must justify
		the ability to calculate a
		RICT given that SRMs
		are not typically
		modeled in the PRA.

C	NUREG-1434, BWR/6 STS	
Specification	LCO Requirements and Condition	Condition on Use
3.3.4.1.A	LCO: End of Cycle Recirculation Pump Trip	Licensee must justify
	(EOC-RPT) Instrumentation	that one or more
	Condition: One or more required channels	inoperable channels is
	inoperable.	not a condition in
		which all required
		trains or subsystems of
		a TS required system
		are inoperable or
		modify the Action to
		not apply a RICT when
		all required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
		Licensee must justify
		the ability to calculate a
		RICT for the condition,
		including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
3.3.6.5.A	LCO: Relief and Low-Low Set (LLS)	Licensee must justify
	Instrumentation	the ability to calculate a
	<b>Condition:</b> One trip system inoperable.	RICT for the condition,
		including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.

G	NUREG-1434, BWR/6 STS	
Specification	LCO Requirements and Condition	Condition on Use
3.3.8.1.A	<b>LCO:</b> The LOP instrumentation for each Function	Licensee must justify
	in Table 3.3.8.1-1 shall be OPERABLE.	that one or more
	<b>Condition:</b> One or more channels inoperable.	channels inoperable is
		not a condition in
		which all required
		trains or subsystems of
		a TS required system
		are inoperable or
		modify the Action to
		not apply a RICT when
		all required trains or
		subsystems are
		inoperable. See Note 1
		at the end of
		Attachment 2.
3.6.1.2.C	<b>LCO:</b> The primary containment air lock shall be	Licensee must justify
	OPERABLE. Condition: Primary containment air	that an inoperable
	lock inoperable for reasons other than Condition A	containment air lock is
	or B.	not a condition in
		which all required
		trains or subsystems of
		a TS required system
		are inoperable. An
		acceptable argument
		may be that a note in
		TS 3.6.1.2 requires the
		condition to be
		assessed in accordance
		with TS 3.6.1.1,
		Primary Containment,
		and any loss of
		function would require
		an immediate plant
		shutdown under that
		TS.

### Attachment 2 Conditional Variations from TSTF-505-A in Near-Term Plant-Specific License Amendment Requests

Specification	NUREG-1434, BWR/6 STS LCO Requirements and Condition	Condition on Use
3.6.1.3.E	<b>LCO:</b> Each PCIV shall be OPERABLE.	Licensee must justify
5.0.1.5.E	<b>Condition:</b> One or more penetration flow paths	that PCIV leakage in
	with one or more containment purge valves not	excess of the limits is
	within purge valve leakage limits.	not a condition in
	whilm purge varve leakage mints.	
		which all required
		trains or subsystems of
		a TS required system are inoperable.
		Licensee must justify
		5.
		the ability to calculate a RICT for the condition,
		including how the system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
3.6.1.7.A	LCO: Residual Heat Removal (RHR) Containment	Licensee must justify
J.0.1./.A	Spray System	the ability to calculate a
	<b>Condition:</b> One RHR containment spray	RICT for the condition,
	subsystem inoperable.	including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.
3.7.4.A	LCO: Two [control room AC] subsystems shall be	Licensee must justify
	OPERABLE.	the ability to calculate a
	<b>Condition:</b> One [control room AC] subsystem	RICT for the condition,
	inoperable.	including how the
		system is modeled in
		the PRA, whether all
		functions of the system
		are modeled, and, if a
		surrogate is used, why
		that modeling is
		conservative.

# NUREG-1434, BWR/6 STS

### Attachment 2 Conditional Variations from TSTF-505-A in Near-Term Plant-Specific License Amendment Requests

	NUKEG-1434, DWK/0515		
Specification	LCO Requirements and Condition	Condition on Use	
3.7.6.A	LCO: The Main Turbine Bypass System shall be	Licensee must justify	
	OPERABLE.	the ability to calculate a	
	OR	RICT for the condition,	
	The following limits are made applicable:	including how the	
	[ a. LCO 3.2.1, "AVERAGE PLANAR LINEAR	system is modeled in	
	HEAT GENERATION RATE (APLHGR)," limits	the PRA, whether all	
	for an inoperable Main Turbine Bypass System, as	functions of the system	
	specified in the [COLR] and ]	are modeled, and, if a	
	[ b. LCO 3.2.2, "MINIMUM CRITICAL POWER	surrogate is used, why	
	RATIO (MCPR)," limits for an inoperable Main	that modeling is	
	Turbine Bypass System, as specified in the	conservative.	
	[COLR].]		
	Condition: [Requirements of the LCO not met or		
	Main Turbine Bypass System inoperable].		

# NUREG-1434, BWR/6 STS

### Attachment 2 Conditional Variations from TSTF-505-A in Near-Term Plant-Specific License Amendment Requests

### Note 1

Some Conditions are applicable when an unspecified number of subsystems or instrument channels are inoperable, typically written as "One or more..." or "Two or more...". These conditions currently apply when all subsystems or channels required to be operable to perform a function are inoperable, and application of a RICT in this situation is prohibited in the near-term TSTF-505 submittals.

To address this, it is recommended that the following modification to TSTF-505 be made to the Required Actions indicated in the Attachment 2 tables for Completion Times potentially applicable when all required subsystems or channels are inoperable.

The typical Completion Time is modified by TSTF-505 to state:

72 hours (i.e., the existing Completion Time)

<u>OR</u>

In accordance with the Risk Informed Completion Time Program

It is recommended that the second Completion Time be modified with a Note, as shown below:

72 hours (i.e., the existing Completion Time)

<u>OR</u>

-----NOTE-----Not applicable when [all/four/both] required channels are inoperable.

In accordance with the Risk Informed Completion Time Program

The bracketed number of channels will depend on the specification. This approach retains the existing requirements and limits the use of a RICT to conditions in which the function can still be performed. The licensee must justify that the required function can still be performed absent an additional failure when a RICT is applied.

Alternatively, the licensee may modify the Condition to only apply when at least one subsystem or channel is operable, but this approach may require creating a new Condition or modifying an existing condition to retain the current requirements, or accepting a more restrictive requirement (such a LCO 3.0.3 entry).

Attachment 3 TSTF-505 Model Application

### PROPOSED MODEL APPLICATION FOR PLANT-SPECIFIC ADOPTION OF TSTF-505, REVISION 1, "PROVIDE RISK-INFORMED EXTENDED COMPLETION TIMES – RITSTF INITIATIVE 4B"

U.S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

- SUBJECT: [PLANT] DOCKET NO. 50-[XXX] LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT RISK INFORMED COMPLETION TIMES TSTF-505, REVISION 1, "PROVIDE RISK-INFORMED EXTENDED COMPLETION TIMES - RITSTF INITIATIVE 4B."
- REFERENCE: Letter from the TSTF to U.S. NRC, "Response to NRC Questions on TSTF-505, 'Provide Risk-Informed Extended Completion Times'," dated DATE

In accordance with the provisions of Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), [LICENSEE] is submitting a request for an amendment to the Technical Specifications (TS) for [PLANT.]

The proposed amendment would modify TS requirements to permit the use of Risk Informed Completion Times in accordance with TSTF-505, Revision 1, "Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b," as modified by the [DATE] letter from the TSTF to the NRC (Reference). The availability of this TS improvement was announced in the Federal Register on March 15, 2012 (77 FR 15399).

- Attachment 1 provides a description and assessment of the proposed change, the requested confirmation of applicability, and plant-specific verifications.
- Attachment 2 provides the existing TS pages marked up to show the proposed changes.
- Attachment 3 provides revised (clean) TS pages.
- Attachment 4 provides existing TS Bases pages marked up to show the proposed changes.

[LICENSEE] requests approval of the proposed license amendment by [DATE], with the amendment being implemented [BY DATE OR WITHIN X DAYS].

In accordance with 10 CFR 50.91(a)(1), "Notice for Public Comment," the analysis about the issue of no significant hazards consideration using the standards in 10 CFR 50.92 is being provided to the Commission.

In accordance with 10 CFR 50.91(b)(1), "Notice for Public Comment; State Consultation," a copy of this application, with attachments, is being provided to the designated [STATE] Official.

I declare [or certify, verify, state] under penalty of perjury that the foregoing is true and correct.

Executed on [date][Signature]

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER].

Sincerely,

[Name, Title]

Attachments: 1. Description and Assessment

- 2. Proposed Technical Specification Changes (Mark-Up)
- 3. Revised Technical Specification Pages
- 4. Proposed Technical Specification Bases Changes (Mark-Up)

### Enclosures:

- List of Revised Required Actions to Corresponding PRA Functions
   Information Supporting Consistency with Regulatory Guide 1.200, Revision 2.
- 3. Information Supporting Technical Adequacy of PRA Models Without PRA Standards Endorsed by Regulatory Guide 1.200, Revision 2.
- 4. Information Supporting Justification of Excluding Sources of Risk Not Addressed by the PRA Models.
- 5. Baseline CDF and LERF.
- 6. Justification of Application Of At-Power PRA Models to Shutdown Modes.
- 7. PRA Model Update Process.
- 8. Attributes of the CRMP Model.
- 9. Key Assumptions and Sources of Uncertainty.
- 10. Program Implementation
- 11. Monitoring Program
- 12. Risk Management Action Examples
- cc: NRC Project Manager NRC Regional Office NRC Resident Inspector State Contact

### ATTACHMENT 1 DESCRIPTION AND ASSESSMENT OF THE PROPOSED CHANGE

### License Amendment Request for Adoption of TSTF-505, Revision 1, "Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b"

# 1.0 <u>DESCRIPTION</u>

The proposed amendment would modify the Technical Specification (TS) requirements related to Completion Times (CTs) for Required Actions to provide the option to calculate a longer, risk-informed CT (RICT). A new program, the Risk-Informed Completion Time Program, is added to TS Section 5 Administrative Controls.

The methodology for using the RICT Program is described in NEI 06-09-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," Revision 0, which was approved by the NRC on May 17, 2007. Adherence to NEI 06-09-A is required by the RICT Program.

The proposed amendment is consistent with TSTF-505, Revision 1, "Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b," as modified by the TSTF's [DATE] letter to the NRC, "Response to NRC Questions on TSTF-505, 'Provide Risk-Informed Extended Completion Times'." However, only those Required Actions described in Enclosure 1 are proposed to be changed, [which does not include all of the modified Required Actions in TSTF-505 and which includes some plant-specific Required Actions not included in TSTF-505].

### 2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

[LICENSEE] has reviewed the model safety evaluation dated [DATE] as part of the Federal Register Notice for Comment. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-505 and the safety evaluation for NEI 06-09, as well as the TSTF's [DATE] letter on TSTF-505. [As described in the subsequent paragraphs,][LICENSEE] has concluded that the technical basis presented in the TSTF-505 proposal, the associated model safety evaluation prepared by the NRC staff, as modified by the TSTF letter on TSTF-505 are applicable to [PLANT, UNIT NOS.] and support incorporation of this amendment in the [PLANT] TS.]

### 2.2 Verifications and Regulatory Commitments

In accordance with Section 4.0, Limitations and Conditions, of the safety evaluation for NEI 06-09-A, the following is provided:

- 1. Enclosure 1 identifies each of the TS Required Actions to which the RICT Program will apply, with a comparison of the TS functions to the functions modeled in the probabilistic risk assessment (PRA) of the structures, systems and components (SSCs) subject to those actions.
- 2. Enclosure 2 provides a discussion of the results of peer reviews and self-assessments conducted for the plant-specific PRA models which support the RICT Program, as required by Regulatory Guide (RG) 1.200 Section 4.2.
- [Enclosure 3 provides a description of all PRA models used to support the RICT Program for which Nuclear Regulatory Commission endorsed standards are not available.]
   [Enclosure 3 is not applicable since each PRA model used for the RICT Program is addressed using a standard endorsed by the Nuclear Regulatory Commission.]
- 4. Enclosure 4 provides appropriate justification for excluding sources of risk not addressed by the PRA models.
- 5. Enclosure 5 provides the plant-specific baseline CDF and LERF to confirm that the potential risk increases allowed under the RICT Program are acceptable.
- [Enclosure 6 provides appropriate plant-specific justification for using at power PRA models in shutdown modes to which the RICT Program applies (modes 3 [and 4]).]
   [Enclosure 6 is not applicable since the RICT Program is not being applied to shutdown modes.]
- 7. Enclosure 7 provides a discussion of the licensee's programs and procedures that assure the PRA models that support the RICT Program are maintained consistent with the asbuilt, as-operated plant.
- 8. Enclosure 8 provides a description of how the baseline PRA model, which calculates average annual risk, is evaluated and modified for use in the Configuration Risk Management Program (CRMP) to assess real-time configuration risk, and describes the scope of, and quality controls applied to, the CRMP
- 9. Enclosure 9 provides a discussion of how the key assumptions and sources of uncertainty in the PRA models were identified, and how their impact on the RICT Program was assessed and dispositioned.
- 10. Enclosure 10 provides a description of the implementing programs and procedures regarding the plant staff responsibilities for the RICT Program implementation, including risk management action (RMA) implementation.

- 11. Enclosure 11 provides a description of the implementation and monitoring program as described in NEI 06-09, Section 2.3.2, Step 7.
- 12. Enclosure 12 provides a description of the process to identify and provide RMAs.
- 2.3 Optional Changes and Variations

[LICENSEE is not proposing any changes, variations, or deviations from the TS changes described in the TSTF-505, Revision 1, or the applicable parts of the NRC staff's model safety evaluation dated [DATE], except as described in the TSTF letter dated [DATE].] [LICENSEE is proposing the following changes or variations from the TS changes described in the TSTF-505, Revision 1, or the applicable parts of the NRC staff's model safety evaluation dated [DATE]. These options were recognized as acceptable changes or variations in TSTF-505 and the NRC staff's model safety evaluation.]

{NOTE: If a change or variation is not identified in TSTF-505, the NRC staff's model safety evaluation, or NEI 06-09 then provide the description and justification.}

[The [PLANT] TS utilize different [numbering][and][titles] than the Standard Technical Specifications on which TSTF-505 was based. Specifically, [describe differences between the plant-specific TS numbering and/or titles (including Required Actions and programs) and the TSTF-505 numbering and titles.] These differences are administrative and do not affect the applicability of TSTF-505 to the [PLANT] TS.]

- 3.0 <u>REGULATORY SAFETY ANALYSIS</u>
- 3.1 No Significant Hazards Consideration Determination

[LICENSEE] has evaluated the proposed change to the TS using the criteria in 10 CFR 50.92 and has determined that the proposed change does not involve a significant hazards consideration.

[PLANT, UNIT NOS.] requests adoption of an approved change to the standard technical specifications (STS) and plant-specific technical specifications (TS), to modify the TS requirements related to Completion Times for Required Actions to provide the option to calculate a longer, risk-informed Completion Time. The allowance is described in a new program in Chapter 5, "Administrative Controls," entitled the "Risk-Informed Completion Time Program."

As required by 10 CFR 50.91(a), an analysis of the issue of no significant hazards consideration is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

### Response: No.

The proposed change permits the extension of Completion Times provided the associated risk is assessed and managed in accordance with the NRC approved Risk-Informed Completion Time Program. The proposed change does not involve a significant increase in the probability of an accident previously evaluated because the change involves no change to the plant or its modes of operation. The proposed change does not increase the consequences of an accident because the design-basis mitigation function of the affected systems is not changed and the consequences of an accident during the extended Completion Time are no different from those during the existing Completion Time.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

### Response: No.

The proposed change does not change the design, configuration, or method of operation of the plant. The proposed change does not involve a physical alteration of the plant (no new or different kind of equipment will be installed).

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change permit the extension of Completion Times provided risk is assessed and managed in accordance with the NRC approved Risk-Informed Completion Time Program. The proposed change implements a risk-informed configuration management program to assure that adequate margins of safety are maintained. Application of these new specifications and the configuration management program considers cumulative effects of multiple systems or components being out of service and does so more effectively than the current TS.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, [LICENSEE] concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

# 4.0 <u>ENVIRONMENTAL CONSIDERATION</u>

[LICENSEE] has reviewed the environmental evaluation included in the model safety evaluation published on [DATE] ([] FR []) as part of the Notice of Availability. [LICENSEE] has concluded that the NRC staff findings presented in that evaluation are applicable to [PLANT, NO.].

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

# ATTACHMENT 2 PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)

{provided by the licensee}

### ATTACHMENT 3 REVISED TECHNICAL SPECIFICATION PAGES

{provided by the licensee}

## ATTACHMENT 4 PROPOSED CHANGES TO TECHNICAL SPECIFICATION BASES CHANGES (MARK-UP) PAGES

{provided by the licensee}

### ENCLOSURE 1 LIST OF REVISED REQUIRED ACTIONS TO CORRESPONDING PRA FUNCTIONS

{NOTE: This enclosure provides confirmation that the PRA models include the necessary scope of structures, systems, and components (SSCs) and their functions to address each proposed application of the RICT Program to the TS Required Actions.

TS conditions with insufficient TS operable equipment to meet the specified safety function of the system, are not to be included in the application.

List each TS Required Action to which the RICT Program may be applied and, for each Required Action, describe the following:

- The TS Required Action;
- The corresponding SSC;
- Each design basis function of the SSC;
- How each design basis function is modeled in the PRA. If one of the design basis functions of an SSC or the SSC is not modeled in the PRA, describe any proposed surrogates and why the proposed surrogate adequately captures the configuration risk; and
- The success criteria used in the PRA model compared to the licensing basis criteria. The success criteria should include both train-level and component/parameter level.

Note that the above description should be at the level of the TS condition/TS Required Action (not at the LCO level only). If the TS condition/ TS Required action covers multiple SSCs or multiple design basis functions, such as in the case ESFAS Instrumentation or Containment Sprays, describe each one individually.

The enclosure should also include clear definitions of any used terms, such as "train," "division," "loop," "subsystem," etc.

The enclosure should provide a detailed system description of TS 3.8, "Electrical Power Systems," Required Actions if the loading scheme is not uniform (e.g., Train A and B have similar loading, except Train B supplies power to additional SSCs.) Also, provide a description in Enclosure 12 of representative RMAs for non-uniform trains to demonstrate that the system's safety function is maintained with either train or subsystem operable.}

#### ENCLOSURE 2 INFORMATION SUPPORTING CONSISTENCY WITH REGULATORY GUIDE 1.200, REVISION 2

{NOTE: This enclosure provides information supporting the licensee evaluation of the technical adequacy of the PRA models supporting the RICT Program based on peer reviews and self-assessments against the relevant PRA standards as endorsed in the current applicable revision of RG 1.200, including consideration of staff clarifications of the standards.

Per NEI 06-09 Rev. 0, capability category II of the standards is applicable; therefore, the licensee identifies those parts of the PRAs that conform to capability categories lower than II, and provides a disposition for the RICT Program. Consistent with RG 1.200 Section 4.2, the licensee identifies and provides a discussion of the resolution of any findings and observations from the peer reviews or self-assessments.

The licensee assessment must also address the clarifications and qualifications found in RG 1.200, either by a separate discussion provided by the licensee, or by confirmation that the peer reviews or self-assessments included consideration of the clarifications and qualifications of the current applicable RG 1.200 revision.

Licensees are strongly encouraged to apply the guidance in Appendix X, "Close out of Facts and Observations," of NEI 05-04, "Process for Performing Internal Events PRA Peer Reviews Using the ASME/ANS PRA Standard, Rev 3, November 2009," NEI 07-12, "Fire Probabilistic Risk Assessment Peer Review Process Guidelines, Rev 1, June 2010," and NEI 12-13, "External Hazards PRA Peer Review Process Guidelines, Rev 0, August 2012," to close PRA peer review findings, as this will make more efficient use of the NRC and industry resources needed to develop and review of the application. }

### ENCLOSURE 3 INFORMATION SUPPORTING TECHNICAL ADEQUACY OF PRA MODELS WITHOUT PRA STANDARDS ENDORSED BY REGULATORY GUIDE 1.200, REVISION 2

{NOTE: This enclosure provides information supporting the licensee evaluation of the PRA models supporting the RICT Program for which the relevant PRA standards are not yet endorsed in the current applicable revision of RG 1.200.

RG 1.200 Rev. 2 endorses standards for internal and external events including internal floods and fires, seismic events, and other external hazards for full power conditions. This scope includes the relevant hazard groups applicable to a RICT Program unless the program is to apply to lower modes of operation. In this case, shutdown and transition risk PRA models may apply but are not be covered by an endorsed standard. If applicable, the licensee should provide a detailed description of these PRA models and the basis for its determination of their technical adequacy to support the RICT Program.}

#### ENCLOSURE 4 INFORMATION SUPPORTING JUSTIFICATION OF EXCLUDING SOURCES OF RISK NOT ADDRESSED BY THE PRA MODELS

{NOTE: This enclosure identifies and provides a justification for excluding sources of risk which are not in the scope of the PRA models applied to the RICT Program.

Exclusion of risk sources determined to be insignificant to the calculation of configuration specific risk, or the use of conservative or bounding analyses for the calculation of RICTs in lieu of realistic PRA models, are described. A qualitative treatment may be sufficient if the licensee demonstrates that those risk contributions would not affect decisions in a RICT Program. The use of conservative bounding calculations in a RICT Program may also be acceptable. However, when the risk associated with a particular hazard group would affect decisions, it is the Commission's policy that risk be assessed using a PRA that meets the staff-endorsed PRA standard.

External hazards screened out from inclusion in RICT calculations should be clearly identified as such, and should be done in a manner consistent with Part 6 of the ASME ANS PRA Standard. The justification should address baseline and configuration-specific considerations.

For external hazards that are not screened out from inclusion in RICT calculations, the licensee may propose a bounding approach to address the hazard. If the bounding approach involves assuming a uniform increase in baseline risk to address the hazard, the licensee will need to address potential RICT-specific impacts by doing one of the following:

- Demonstrate in the LAR that this approach is bounding for all TS actions included in the LAR, or
- Establish a procedure to evaluate the validity of the bounding approach when calculating an RICT that is not demonstrated to be bounded in the LAR, or
- For RICTs not demonstrated to be bounded in the LAR, establish a procedure to qualitatively evaluate the impact of the specific external hazard for each RICT when calculated and apply risk management actions as appropriate. }

### ENCLOSURE 5 BASELINE CDF AND LERF

{NOTE: This enclosure provides the plant-specific total CDF and total LERF to confirm that these are less than 10-4/year and 10-5/year, respectively. This assures that the potential risk increases allowed under the RICT Program are consistent with RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," Revision 2.

The licensee should provide the totals and the contributions from each hazard group (internal events, fires, floods, seismic, other external). }

#### ENCLOSURE 6 JUSTIFICATION OF APPLICATION OF AT-POWER PRA MODELS TO SHUTDOWN MODES

{NOTE: This enclosure provides a justification for the use of existing PRA models during shutdown conditions if the RICT Program is applicable in these shutdown conditions.

The at-power PRA models may potentially be applied to lower modes of operation (hot standby for PWRs, and hot shutdown for PWRs and BWRs) for some Required Actions. If the licensee is not proposing to use the RICT Program in these modes, then this information is not required and this Enclosure should be marked "Not applicable." Otherwise, the licensee provides a detailed justification for those Required Actions proposed to apply the RICT Program in lower modes of operation using the at-power PRA models.}

### ENCLOSURE 7 PRA MODEL UPDATE PROCESS

{NOTE: This enclosure describes how the PRA models used in the calculation of completion times is maintained consistent with the as-built, as-operated plant.

The licensee provides a discussion of its programs and procedures to assure the PRA models that support the RICT Program are maintained consistent with the as-built, as-operated plant. This should include a discussion of the timing of significant PRA model changes as described in NEI 06-09, Section 2.3.4, Step 7.}

### ENCLOSURE 8 ATTRIBUTES OF THE CRMP MODEL

{NOTE: This enclosure describes how the baseline PRA model, which calculates average annual risk, is evaluated and modified for use in the Configuration Risk Management Program (CRMP) to assess real-time configuration risk, and describes the scope of, and quality controls applied to, the CRMP.

The licensee provides a description of the PRA models and CRMP used to support the RICT Program. The following specific attributes must also be addressed:

- The baseline PRA models assess the average annual risk. However, some risk is not consistent throughout the year or the operating cycle, and the PRA models used for the CRMP need to properly assess the change in risk for the existing plant conditions. For example, success criteria may be different at core beginning of life compared to end of life, or at different times of the year for room cooling systems. The licensee describes these issues and how they are addressed in the CRMP.
- The baseline PRA models may assume some configurations are not allowable, but these assumptions may not be applicable to a CRMP. The licensee describes these issues and how they are addressed in the CRMP.
- The scope of SSCs within the CRMP is provided, along with confirmation that the CRMP tools can be readily applied for each TS Required Action within the scope of the Risk-Informed Completion Time Program. The licensee should also identify and justify SSCs that are not included in the CRMP that could provide accident mitigation functions.
- The licensee describes how consistency of calculated results from the baseline PRA model and the CRMP are verified to assure the CRMP PRA models are consistent with the baseline model and updated when the baseline PRA model is updated.
- The licensee describes the quality requirements applied to the CRMP PRA models.
- The licensee describes the training and qualification programs applicable to personnel responsible for development and use of the CRMP.}

### **ENCLOSURE 9**

### **KEY ASSUMPTIONS AND SOURCES OF UNCERTAINTY**

{NOTE: This enclosure describes the key assumptions and sources of uncertainty in the PRA models, and how their impact on the RICT Program was assessed and dispositioned. Sensitivity analyses for various plant configuration cases under different assumptions should be provided to justify conclusions.}

### ENCLOSURE 10 PROGRAM IMPLEMENTATION

{NOTE: This enclosure provides a description of the implementing programs and procedures regarding the plant staff responsibilities for the RICT Program implementation including training of plant personnel, and specifically discusses the decision process for risk management action (RMA) implementation during extended CTs.}

### ENCLOSURE 11 MONITORING PROGRAM

{NOTE: This enclosure describes the monitoring program for cumulative risk impacts as described in NEI 06-09, Revision 0, Section 2.3.2, Step 7. This should include a description of how the calculations are made and what actions and thresholds are applied when corrective measures are necessary due to excessive risk increases.}

#### ENCLOSURE 12 RISK MANAGEMENT ACTION EXAMPLES

{NOTE: This enclosure describes the process for identification of RMAs applicable during extended CTs, and provides examples of RMAs.

Provide example RMAs for TS 3.8 Required Actions. These should be representative examples, such as a long and short RICTs. See the Plant Vogtle April 14, 2017 RAI response (ADAMS Accession No. ML17108A253) for an example.

If the TS-required electrical power loading scheme is not uniform (e.g., Train A and B have similar loading, except Train B supplies power to additional SSCs,) provide a description of representative RMAs for non-uniform trains to ensure that the system's safety function is maintained with either train or subsystem inoperable. }