Comparison of Round 1 RAIs and Responses and Round 2 RAIs for
TSTF-541, "Add Exceptions to Surveillance Requirements When the Safety Function is Being Performed"

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
1. The technical basis provided for the proposed changes to the STS contains a discussion of why it would be acceptable to not perform certain SRs for certain equipment when the subject SSC is capable of performing its specified safety function. This justification focused on the third reason for SRs, namely to assure that the limiting conditions for operation will be met. However, no technical basis was provided to demonstrate that the proposed changes to the respective SRs would continue to provide assurance that facility operation will be within safety limits and provide assurance that the necessary quality of systems and components will be maintained. Please provide a complete discussion regarding how the SRs will continue to meet 10 CFR 50.36(c)(3).	SRs required by 10 CFR 50.36(c)(3) are only one method of demonstrating the quality of systems and not all aspects of systems, structures, and components (SSCs) are tested by SRs. Further, not all requirements of 10 CFR 50.36(c)(3) are reflected in every SR. For example, not all SRs are related to meeting a Safety Limit. 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires monitoring of plant components and corrective actions. Licensee programs required by the Quality Assurance program, in particular the requirement to meet 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires licensees to maintain the quality of plant equipment. The proposed SR exceptions do not change the requirements for the subject components. The subject components must either be performing their safety function or the SR must be performed to demonstrate that the safety function can be performed. As	1. The technical basis provided for the proposed changes to the STS contains a discussion of why it would be acceptable to not perform certain SRs for certain equipment when the subject SSC is capable of performing its specified safety function. This justification focused on the third reason for SRs, namely to assure that the LCOs will be met. However, no technical basis was provided to demonstrate that the proposed changes to the respective SRs would continue to provide assurance that facility operation will be within safety limits and provide assurance that the necessary quality of systems and components will be maintained. Please provide a complete discussion regarding how the SRs will continue to meet 10 CFR 50.36(c)(3).	This is identical to the Round 1 RAI.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
	described in TSTF-541, the proposed change is consistent with existing allowances in the TS that have been determined to be consistent with 10 CFR 50.36(c)(3).		
2. Contrary to 10 CFR Part 50, Appendix B, Criterion XI, the proposed changes could allow components that are designed to be operated periodically to degrade in a manner not accounted for in the component's design while secured in a given position for a prolonged period. Likewise, the proposed changes could introduce potential latent degradation of components, which is contrary to 10 CFR Part 50, Appendix B, Criterion XVI. Please provide a discussion regarding how the SRs will be consistent with 10 CFR Part 50, Appendix B, Criterion XI and Criterion XVI.	The Technical Specifications do not implement 10 CFR 50, Appendix B requirements and the proposed changes do not affect compliance with the licensee's Quality Assurance Program.	2. Contrary to 10 CFR Part 50, Appendix B, Criterion XI, the proposed changes could allow components that are designed to be operated periodically to degrade in a manner not accounted for in the component's design while secured in a given position for a prolonged period. Likewise, the proposed changes could introduce potential latent degradation of components, which is contrary to 10 CFR Part 50, Appendix B, Criterion XVI. Please provide a discussion regarding how the SRs will be consistent with 10 CFR Part 50, Appendix B, Criterion XI and Criterion XVI.	This is identical to the Round 1 RAI.
		16. Response to Original RAI #2. The response failed to provide a discussion regarding how the SRs will be consistent	The response correctly stated that the TS do not implement Appendix B requirements.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		with 10 CFR Part 50, Appendix B, Criterion XI and Criterion XVI. The staff believes the proposed changes could introduce the potential for a new mechanism for latent degradation of components, which is contrary to 10 CFR Part 50, Appendix B, Criterion XVI. Given this potential, the proposed changes to STS may not represent a net safety benefit. Rather, the changes may represent an as yet unquantified reduction in safety. Therefore, the NRC staff believes that the RAI response needs to be supplemented to provide an adequate technical basis (i.e., to demonstrate consistency with Appendix B and that a new degradation mechanism is not being created).	
3. Please provide a discussion (i.e., detailed description and technical evaluation) regarding how or when particular SSCs would be identified for the requested exemption and when the exemption would no longer apply. In addition, the proposed	The justification of TSTF-541 provides a detailed description and technical evaluation of each SSC affected by proposed change and the basis for the allowance. For example, the proposed change would revise NUREG-1432, SR 3.7.5.3, which states, "Verify each	3. Please provide a discussion (i.e., detailed description and technical evaluation) regarding how or when particular SSCs would be identified for the requested exemption and when the exemption would no longer apply. In addition, the	This is identical to the Round 1 RAI.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
change appears to be circumventing the requirements of SR 3.0.1, fundamentally altering the purpose of SRs. It is not clear from the submittal why this change is necessary.	AFW automatic valve actuates to the correct position on an actual or simulated actuation signal," to include an exception for valves that are locked, sealed, or otherwise secured in position. The Updated Final Safety Analysis Report (UFSAR) describes automatic valves, the normal and actuated positions, and the method of actuation. If the valve, actuator, or instrumentation is degraded in a manner that the valve will not actuate on a signal but can be locked, sealed, or otherwise secured in its actuated position (i.e., the valve is performing its specified safety function) and there is no safety analysis assumption that the valve can be closed after opening, the proposed change allows the SR to be considered met without performing the verification. However, the degraded component must still be repaired and brought in compliance with the UFSAR description. The proposed change does not allow an automatic valve to be permanently locked in the	proposed change appears to be circumventing the requirements of SR 3.0.1, fundamentally altering the purpose of SRs. It is not clear from the submittal why this change is necessary.	

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	actuated position unless the change is evaluated in accordance with 10 CFR 50.59. The proposed change is consistent with many existing SR exceptions as discussed in the justification. The proposed change does not circumvent the intent of SR 3.0.1, just as the similar existing allowances do not circumvent the intent of SR 3.0.1. This change is needed to prevent a plant declaring an LCO not met in accordance with SR 3.0.1 and declaring the subject components inoperable when the components meet the definition of operability. This is consistent with the intent of the TS.		
		17. Response to Original RAI #3. The response stated: "The proposed change does not allow an automatic valve to be permanently locked in the actuated position unless the change is evaluated in accordance with 10 CFR 50.59." The NRC staff does not agree. If the TS allow the licensee to avoid the surveillance by placing the SSC in a position where it is	The question is incorrect in that it assumes that a licensee can change the plant design without evaluating the change under 50.59.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		performing its specified safety function, then 10 CFR 50.59 would not apply. The proposed change appears to create a process whereby a licensee could implement a design change, driven by component degradation, without NRC staff review or approval. Plant-specific TS do not allow licensees to change the design or operation of the plant without prior NRC staff review and approval. Please discuss how the described process prevents implementation of a de facto design change, driven by component degradation, without NRC staff review or approval. Discuss why such a TS structure is preferable to creation of specific TS Conditions with associated Required Actions and CTs (i.e., to place the SSC in its accident mitigation position with continued operation allowed for a specified time).	
		18. Response to original RAI #3. The response stated: "This change is needed to	The response ignores that many surveillances have exceptions to being met.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		prevent a plant declaring an LCO not met in accordance with SR 3.0.1 and declaring the subject components inoperable when the components meet the definition of operability." This undermines a basic rule of usage for TS. The NRC staff does not believe it is appropriate to change TS to "prevent a plant declaring an LCO not met." The regulation at 10 CFR 50.36 specifically states that SRs demonstrate that the necessary quality of the system is being maintained, in addition to verifying that the LCO is met. By avoiding declaring the LCO not met when an SR cannot be met could have the detrimental effect of the licensee failing to acknowledge that the inoperable SSC is degraded (and possibly continuing to degrade). This, in turn, could lead to the licensee not taking timely corrective action. Therefore, please supplement your response to demonstrate	The proposed change does not create any inconsistency with the regulations. The LCO would be permitted to not be declared not met <u>when the system is operable</u> but the SR is not met.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		why it is necessary to "avoid declaring the LCO not met," as well as, to explain how the SRs modified by TSTF-541 will continue to meet 10 CFR 50.36 requirements for surveillances.	
4. Please provide a discussion (i.e., detailed description and technical evaluation) regarding why new conditions were not proposed that would contain a required action to place the SSC in its accident/actuated position. In addition, new conditions could provide appropriate Completion Times for restoration.	It is inconsistent with the definition of operability and the normal application of the TS to declare components inoperable when they are capable of performing their specified safety function. Therefore, creating conditions that apply when a system is operable but an SR is not met was not proposed.	4. Please provide a discussion (i.e., detailed description and technical evaluation) regarding why new conditions were not proposed that would contain a required action to place the SSC in its accident/actuated position. In addition, new conditions could provide appropriate Completion Times (CTs) for restoration.	This is identical to the Round 1 RAI.
5. Please provide a discussion regarding whether or not a safety benefit would be achieved by the proposed changes or if there is any operating experience that led the industry to propose these changes.	The proposed change was created because of operating experience with licensees declaring LCOs not met and entering Actions when the subject system was operable. Avoiding these situations has the safety benefit of preventing unnecessary plant shutdowns or requests for enforcement discretion.	5. Please provide a discussion regarding whether or not a safety benefit would be achieved by the proposed changes or if there is any operating experience that led the industry to propose these changes.	This is identical to the Round 1 RAI.
		19. Response to original RAI #5. The response described the proposed STS change as providing a safety benefit.	As stated in response to original RAI #2, the TS do not implement Appendix B.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		The RAI response does not address the fact that the proposed changes could introduce the potential for a previously unconsidered mechanism for latent degradation of components, which is contrary to 10 CFR Part 50, Appendix B, Criterion XVI. Given this potential, please explain how the TSTF concludes that the proposed changes to STS represent a net safety benefit, rather, that the changes representing an as yet unquantified reduction in safety?	
		20. Response to original RAI #5. RAI #5 requested that the TSTF provide any operating experience that led the industry to propose these changes. The response was vague and did not provide specific instances where licensees were required to declare LCOs not met and entered Actions which caused a plant shutdown or the need to request enforcement discretion. Accordingly, please provide specific	The question ignores that there are multiple similar allowances in many SRs. The technical problem is the TS requirement to declare a system inoperable when it can perform its specified safety function.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		examples of such occurrences. In addition, please explain why providing appropriate compensatory measures through required actions would not be a more appropriate approach to addressing the technical problem.	
6. The justification for the proposed changes focuses on the actuation function and not the potential unintended consequences of operating the system in an "off-normal" condition for an undefined time. For example, many of the SRs, where the additional language is proposed to be added, involve engineered safety function heating ventilation and air conditioning systems that may contain both high-efficiency particulate air (HEPA) and activated charcoal filters that degrade with use (HEPA filters clog and the efficiency of activated charcoal can decrease). No justification is provided to address the impacts of allowing the filtration systems to be operated continuously for an undetermined time. Please	The affected ventilation systems all contain a Surveillance Requirement to perform filter testing in accordance with the Ventilation Filter Testing Program (VFTP) at a Frequency specified in the VFTP. The VFTP requires testing of the HEPA filters and charcoal adsorber in accordance with Regulatory Guide 1.52. Charcoal absorber must be tested after 720 hours of system operation. Therefore, if the subject systems are operated with the charcoal adsorbers in operation, more frequent testing will be required. Further, per SR 3.0.1, SRs must be met at all times. If system operation challenges the reasonable assurance of compliance with the VFTP criteria for HEPA filters and charcoal adsorber, additional	6. The justification for the proposed changes focuses on the actuation function and not the potential unintended consequences of operating the system in an "off-normal" condition for an undefined time. For example, many of the SRs, where the additional language is proposed to be added, involve engineered safety function heating ventilation and air conditioning systems that may contain both high-efficiency particulate air (HEPA) and activated charcoal filters that degrade with use (HEPA filters clog and the efficiency of activated charcoal can decrease). No justification is provided to address the impacts of allowing the filtration systems to be	This is identical to the Round 1 RAI.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
justify how the filtration systems, if allowed to operate for an undefined amount of time, would continue to meet their design requirements and the efficiencies and flows assumed in design basis accident analyses.	testing or replacement of filters or charcoal would be required. The proposed change does not result in unintended consequences because the model application requires the licensee to verify that the accident analysis does not assume the component can be shifted from the actuated position in order to adopt the change, the corrective action program does not allow a degraded or nonconforming condition to go uncorrected, the design control process requires evaluation of changes to the design configuration, and the 10 CFR 50.65 requires evaluation of plant risk due to changes in configuration.	operated continuously for an undetermined time. Please justify how the filtration systems, if allowed to operate for an undefined amount of time, would continue to meet their design requirements and the efficiencies and flows assumed in design basis accident analyses.	
		7. Many SRs verify that there is an actuation when provided with an actual or simulated actuation signal. With the proposed changes, the SR would be allowed to be considered met if the valve/train is locked, sealed, or otherwise secured in the actuated position. How is it verified that actuation will occur upon an actual or	If the component is in the actuated position, then actuation is not required. If it is removed from the actuated position, then the SR must be met. This same allowance currently exists for Containment Isolation Valves. See NUREG-1431, SR 3.6.3.8 which does not require testing of automatic

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		simulated actuation signal? (list of affected SRs)	valves that are locked, sealed, or otherwise secured in position.
		8. Additional system tests are required for the systems with a request to change one or more SR. Explain if any of the component alignments are changed from their safety operation alignments during the completion of the SRs. If so, how is the correct position verified after the SR is completed?: (list of affected SRs)	If the valve is moved out of the post-accident condition, the SR must be met. There is no change.
		9. The changes requested in TSTF-541 open the potential for plant-specific requests to remove SRs in which the safety operation position is considered permanent during operation. If an SR is removed and a position change occurs during another surveillance, how will it be verified that the correct position required for safety operation is restored and how will it be verified that the position indication in the control room matches with the correct position of the component?	The RAI is requesting justification for a future postulated change to the TS, not the proposed change.

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		10. In NUREG-1430, "Standard Technical Specifications – Babcock and Wilcox Plants," the Bases for SR 3.7.12.5, it states, "The OPERABILITY of the Emergency Ventilation System (EVS) filter bypass damper is verified if it can be closed." The requested change of the SR to, "Verify each EVS filter cooling bypass damper [not locked, sealed, or otherwise secured in the open position] can be opened," is contrary to the operability statement. How is operability justified and verified with the inclusion of this SR change?	Technical question. TSTF to respond.
		11. In NUREG-1431, "Standard Technical Specifications – Westinghouse Plants, "the Bases for SR 3.7.12.5 define operability as, "The OPERABILITY of the Emergency Core Cooling System (ECCS) Penetration Room Exhaust Air Cleanup System (PREACS) bypass damper is verified if it can be specified in Reference 4." Reference 4 is listed as	Technical question. TSTF to respond.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		Regulatory Guide 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants." Compare how operability is verified with this SR currently and with the requested change. Explain and justify any changes.	
		12. This following questions are in reference to the NUREG-1432, "Standard Technical Specifications – Combustion Engineering Plants." In the Bases for SR 3.7.13.5, it states, "The OPERABILITY of the bypass damper is verified if it can be closed." The requested change of the SR to, "Verify each ECCS PREACS filter bypass damper [not locked, sealed, or otherwise secured in the open position] can be opened.," is contrary to the operability	Technical question. TSTF to respond.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		statement. How is operability justified and verified with the inclusion of this SR change? In the Bases for SR 3.7.14.5, it states, “The OPERABILITY of the FBACS filter bypass damper is verified if it can be closed.” The requested change of the SR to, “Verify each FBACS filter bypass damper [not locked, sealed, or otherwise secured in the open position] can be opened.,” is contrary to the operability statement. How is operability justified and verified with the inclusion of this SR change? In the Bases for SR 3.7.15.5, it states, “The OPERABILITY of the PREACS filter bypass damper is verified if it can be closed.” The requested change of the SR to, “Verify each PREACS filter bypass damper [not locked, sealed, or otherwise secured in the open position] can be opened.,” is contrary to the operability statement. How is operability	

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		justified and verified with the inclusion of this SR change?	
		13. The following questions are in reference to NUREG-1433, "Standard Technical Specifications – General Electric BWR/4 Plants" With the proposed change to SR 3.6.4.3.4, if the Standby Gas Treatment System filter cooler bypass damper is in a locked, sealed, or otherwise secured in the opened position, and the surveillance is not performed, how is it ensured that the ventilation mode of SGT system operation is available? Explain how it is ensured that the fan starts. In a case where the SGT system damper position during normal plant operation is not in the correct actuated safety position during normal operation and the SR is deleted, (a) how will it be verified that the damper automatically actuates when needed, or it can be manually operated, and (b) the damper	The proposed change does not revise the fan testing requirement. The SR is not being deleted.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		alignment during normal operation matches control room indication? For the main control room environmental control system, additional system tests are required by the SRs for this system. Explain if any of the component alignments are changed from their safety operation alignments during the completion of the SRs. If so, how is the correct position verified after the SR is completed?	If the valve is moved out of the post-accident condition, the SR must be met. There is no change.
		14. The following questions are in reference to NUREG-1434, “Standard Technical Specifications – General Electric BWR/6 Plants” SR 3.6.1.7.3 verifies each residual heat removal (RHR) containment spray subsystem automatic valve in the flow path actuates to its correct position on an actual or simulated automatic initiation signal. In a case where the RHR containment spray subsystem valve position	The SR is not being deleted.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		during normal plant operation is not in the correct actuated safety position during normal operation and this SR is deleted, (a) how will it be verified that the valve automatically actuates when needed, or it can be manually operated from the control room, and (b) the valve alignment during normal operation matches with the control room indication. With the proposed change to SR 3.6.4.3.4, if the standby gas treatment system filter cooler bypass damper is in a locked, sealed, or otherwise secured in the opened position, and the surveillance is not performed, how is it ensured that the ventilation mode of SGT system operation is available? Explain how it is ensured that the fan starts. In a case where the SGT system damper position during normal plant operation is not in the correct actuated safety position during normal	The proposed change does not revise the fan testing requirement. The SR is not being deleted.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		operation and the SR is deleted, (a) how will it be verified that the damper automatically actuates when needed, or it can be manually operated, and (b) the damper alignment during normal operation matches control room indication? For the control room fresh air system, additional system tests are required by the SRs for this system. Explain if any of the component alignments are changed from their safety operation alignments during the completion of the SRs. If so, how is the correct position verified after the SR is completed?	If the valve is moved out of the post-accident condition, the SR must be met. There is no change.
		15. The proposed traveler assumes that if a valve or damper is in the actuated position and the safety analysis does not assume that the valve or damper are assumed to move following an accident that the safety function of the value is assured without any further detailed analysis.	Technical question. TSTF to respond.

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		The Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors (Volume 58 of the Federal Register, page 39132) states: ... Meeting the regulations and assuring safety may be more complicated than the criteria proposed above. An SSC may have multiple modes of operation that mitigate more than one DBA or AOO and the final position of the valve may vary. DBAs and AOOs may also credit the initial design position or time for the valve or damper to move (rather than only the final positon). For example, closed valves that actuate open during an accident may create a barrier to contain radioactivity before the SSC operates. Given the many different plant designs and modes of operation of SSCs please explain and justify how the ability to meet the regulations can be determined using only the final positon of the damper and	

Round 1 RAI	TSTF Response	Round 2 RAI(S)	TSTF Comment
		whether it is required to move following the accident. Please state whether it is expected that every plant-specific license amendment request to adopt the proposed traveler will provide the following information: A detailed review of every DBA and AOO to verify that the option to operate with the valve or damper locked in the actuated, post-accident position is consistent with their licensing basis analyses. Given that the safety analyses are bounding analyses which act as surrogates for other possible plant evolutions, please state any impacts that this traveler may have on the reliability of the components to perform their function during other plant evolutions.	