

January 26, 2016

TSTF-15-12
PROJ0753

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

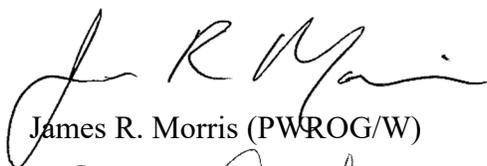
SUBJECT: Response to NRC Request for Additional Information Regarding TSTF-551, Revision 1, "Revise Secondary Containment Surveillance Requirements"

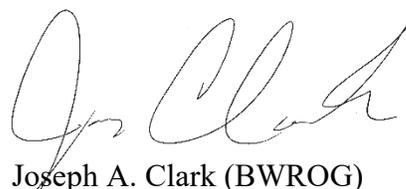
REFERENCE: Letter from Michelle Honcharik (NRC) to the TSTF, "Request for Additional Information Re: Traveler TSTF-551, Revision 1, 'Address Transient Secondary Containment Conditions'," dated November 18, 2015 (ADAMS Accession No. ML15281A291).

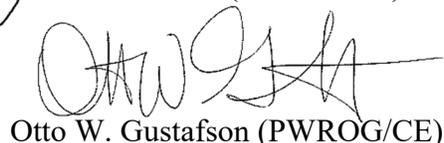
On September 3, 2015, the TSTF submitted traveler TSTF-551, Revision 1, "Revise Secondary Containment Surveillance Requirements," to the Nuclear Regulatory Commission (NRC) for review (ADAMS Accession No. ML15246A131).

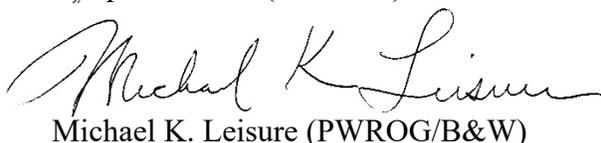
In the referenced letter, the NRC provided a Request for Additional Information (RAI) on the traveler. The attachment to this letter provides the response to the NRC comments. Note that the title of TSTF-551 was changed in Revision 1 from "Address Transient Secondary Containment Conditions" to "Revise Secondary Containment Surveillance Requirements."

Should you have any questions, please contact us.


James R. Morris (PWROG/W)


Joseph A. Clark (BWROG)


Otto W. Gustafson (PWROG/CE)


Michael K. Leisure (PWROG/B&W)

Attachment

cc: Michelle Honcharik, Licensing Processes Branch, NRC
Robert Elliott, Technical Specifications Branch, NRC

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Response to NRC Request for Additional Information Regarding TSTF-551, Revision 1, "Revise Secondary Containment Surveillance Requirements"

The NRC comments are repeated below in italics, followed by the TSTF response.

By letter dated September 3, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML15246A131), Technical Specifications Task Force (TSTF) submitted Traveler TSTF-551, Revision 1, "Revise Secondary Containment Surveillance Requirements," which requests to amend the Standard Technical Specifications in NUREG-1433 and NUREG-1434. TSTF-551 proposes to revise Standard Technical Specifications (STS) 3.6.4.1, "Secondary Containment," in the Boiling Water Reactor (BWR) STS.

TSTF-551 proposes to add a Note to Surveillance Requirement (SR) 3.6.4.1.1 to allow the SR to not be met if an analysis demonstrates one standby gas treatment subsystem is capable of establishing the required secondary containment vacuum. In addition, it proposes a modification to BWR/4 STS SR 3.6.4.1.3 to be consistent with the BWR/6 STS by allowing that secondary inner and outer containment access openings to be simultaneously open for entry and exit.

Existing STS SR 3.6.4.1.1 states, "Verify [secondary] containment vacuum is \geq [0.25] inch of vacuum water gauge." TSTF-551 proposes to add a note to STS SR 3.6.4.1.1 that states:

Not required to be met if analysis demonstrates one Standby Gas Treatment (SGT) subsystem is capable of establishing the required [secondary] containment vacuum.

RAI-1

The technical justification provided in the TSTF states that conditions affecting [secondary] containment pressure may occur that do not affect the ability of the [secondary] containment to be able to perform its safety function. Wind gusts and normal ventilation system configuration changes are cited as examples.

Please provide a definition of "conditions affecting [secondary] containment pressure" that do not affect the ability of [secondary] containment to be able to perform its safety function. How is it determined and documented whether a condition would prevent fulfillment of the safety function?

TSTF Response

A "condition affecting [secondary] containment pressure" is any event that results in the pressure limit in SR 3.6.4.1.1 not being met, such as wind gusts, normal ventilation configuration changes, breaches in the [secondary] containment boundary, etc. When such an event occurs, the SR is declared not met and the Actions entered. If it is determined through an analysis of the event that the safety function could still be fulfilled (for example, a change in normal ventilation configuration would not prevent the Standby Gas Treatment (SGT) System from drawing the required vacuum), the SR would be declared met. This type of event would be documented in operator logs and in the Corrective Action Program in accordance with 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action."

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This is analogous to the current situation in which licensees evaluate if the safety function can be met when the [secondary] containment is inoperable in order to determine whether the event should be counted towards the Safety System Functional Failures (SSFF) Performance Indicator. There have been over 80 Licensee Event Reports (LERs) for inoperable [secondary] containment since NUREG-1022, Revision 3, was issued in January 2013 and in the majority of cases, an analysis performed by the licensee determined that the safety function could still be performed. Adoption of TSTF-551 would eliminate the NRC and licensee resources expended on these low-value LERs while still requiring an LER to be submitted if the safety function cannot be performed.

RAI-2

Existing STS SR 3.6.4.1.4 states, "Verify the [secondary] containment can be drawn down to $\geq [0.25]$ inch of vacuum water gauge in $\leq [120]$ seconds using one SGT subsystem.

Existing STS SR 3.6.4.1.5 states, "Verify the [secondary] containment can be maintained $\geq [0.25]$ inch of vacuum water gauge for 1 hour using one SGT subsystem at a flow rate of $\leq [4000]$ cfm.

Since the requirements of SR 3.6.4.1.4 and 3.6.4.1.5 must be met between performances of the surveillance, and these SRs specify criteria for [secondary] containment vacuum conditions, why is a Note being proposed that would require an analysis to demonstrate one SGT subsystem is capable of establishing the required [secondary] containment vacuum? Wouldn't the requirements of SR 3.6.4.1.4 and 3.6.4.1.5 be sufficient?

Additionally, the staff notes that TSTF-551's technical evaluation does not address programmatic requirements for the proposed analysis, such as time limits for performing the analysis and documentation requirements for the analysis. Please submit the programmatic requirements for the proposed analysis or revise the SR note to address the specific concerns. For example, the SR note could state:

Not required to be met during wind gusts and repositioning of normal non-emergency ventilation if SR 3.6.4.1.4 and SR 3.6.4.1.5 are met.

TSTF Response

The TSTF determined that changes to SR 3.6.4.1.4 and SR 3.6.4.1.5 were not needed as part of the proposed change. If SR 3.6.4.1.1 is not met, there are two possible outcomes:

- The analysis required by the proposed Note demonstrates that the safety function can still be performed. In that case, SR 3.6.4.1.4 and SR 3.6.4.1.5 could be successfully performed because of the brief nature of the condition relative to the SR 3.6.4.1.4 and SR 3.6.4.1.5 time-frames or because the SGT subsystem can draw the required vacuum.
- The analysis required by the proposed Note does not demonstrate that the safety function can still be performed. In that case, SR 3.6.4.1.1 is not met and SR 3.6.4.1.4 and

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SR 3.6.4.1.5 may not be able to be successfully performed. However, per SR 3.0.1, the LCO is not met when SR 3.6.4.1.1 is not met and no exception to the other SRs is needed.

In both cases, notes on SR 3.6.4.1.4 and SR 3.6.4.1.5 are not necessary.

Providing the proposed exception to SR 3.6.4.1.1 in terms of meeting SR 3.6.4.1.4 and SR 3.6.4.1.5 would require performing the SRs in order to demonstrate that both the [secondary] containment and the SGT subsystems can perform their function. Performance of these SRs is unnecessary and not informative in response to a transient condition.

Regarding programmatic requirements, if SR 3.6.4.1.1 is not met, the Actions are entered. Action A provides 4 hours to restore the [secondary] containment to Operable status and for the SR to be met; otherwise, the plant is required to be in MODE 3 within 12 hours. If the SR is subsequently met within the 4 hour Completion Time and, under the proposed change, it cannot be determined that the safety function could have still been provided, an ENS notification must be made within 8 hours for an event or condition that could have prevented fulfillment of a safety function, and an LER must be submitted within 60 days. Therefore, the TS Actions and 10 CFR 50.72/50.73 establish the time limits for performing the evaluation. The evaluation would be documented in the Corrective Action Program, operator logs, and potentially an LER. These documents are available for NRC inspection.

RAI-3

With respect to the proposed BWR/4 SR 3.6.4.1.3 revision, please provide assurance that an adequate administrative control will be implemented to control over secondary containment access door openings, specifically, to address how the door will be controlled in terms of frequency and time duration. Furthermore, provide assurance that the functional capability of the secondary containment will still be maintained when the access doors are simultaneously opened. Note that the frequency and door opening time of both planned activity and inadvertent event involved with simultaneous door openings should be subject to control. Provide justification for such a control.

TSTF Response

There are many doors in a nuclear power plant that are credited as barriers, such as fire doors, security doors, flooding doors, High Energy Line Break (HELB) doors, control room doors, and [secondary] containment doors. Administrative controls are applied to these types of doors and the person using the door is responsible for opening and closing the door securely and for not keeping the door open any longer than necessary for entry. Further, the [secondary] containment doors may be security doors which alarm if the door is left open.

[Secondary] containment doors will be treated in a manner similar to other barrier doors. For example, BWR/4 Technical Specification 3.7.5, "Main Control Room Environmental Control (MCREC) System," contains an LCO Note that states, "The main control room envelope (CRE) boundary may be opened intermittently under administrative control." The Bases state:

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The LCO is modified by a Note allowing the CRE boundary to be opened intermittently under administrative controls. ... For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area.

Opening both doors simultaneously is not a planned event. As described in TSTF-551, some plants have interlocks to prevent opening both an inner and outer door simultaneously during entry and exit, but the interlocks may not be effective depending on the timing of the openings, and the use of multiple inner or outer doors for a particular access opening. All plants have administrative requirements to open only one [secondary] containment door at a time when [secondary] containment is required to be Operable. Should both doors be inadvertently opened simultaneously, the proposed exception in the SR of "being used for entry and exit" ensures that the time that both doors may be open is limited to the time it takes to traverse through a door. If an accident should occur during the brief period that both doors could be open for entry and exit, and should that accident require [secondary] containment vacuum to be established by the SGT System, it might not be possible for the SGT to establish the required vacuum until one door is closed. However, the accident analyses assume: 1) the SGT System takes minutes to establish [secondary] containment vacuum; 2) only one SGT subsystem is in operation; and 3) the [secondary] containment is initially at atmospheric pressure. Therefore, the few seconds required to close at least one [secondary] containment door should not have any significant effect on the ability to establish [secondary] containment vacuum as assumed in the accident analysis.