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Waterford 3

Pre-Submittal Meeting for
License Amendment Request to Modify Selected Surveillance Requirements in Support of the Surveillance Frequency Control Program

April 2024

Overview

- Purpose
- Background
- License Amendment Request (LAR) Overview
- Submittal and Requested Review Schedule
- Comments and Discussion

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Purpose

Waterford 3 is proposing to modify five Surveillance Requirements (SR) to be consistent with TSTF-425

- Four SRs contain a COLD SHUTDOWN frequency in addition to a frequency in accordance with the Surveillance Frequency Control Program (SFCP). The application of the SFCP is challenged by the COLD SHUTDOWN frequencies. These changes are consistent with TSTF-425
- Restore one event-driven SR to its pre TSTF-425 Completion Time

Background

- TSTF-425 (i.e., SFCP) was approved for Waterford as Amendment 249 via NRC letter ML16159A419, dated July 26, 2016

- Subsequent implementation of the SFCP has identified challenges with the wording of a few SRs

License Amendment Request (LAR) Overview

SRs with COLD SHUTDOWN Frequency and SFCP

- Table 4.3-2 ESFAS Instrumentation SRs - Note (3)
- Table 4.3-2 ESFAS Instrumentation SRs - Note (5)
- 3.4.5.2 Reactor Coolant System Operational Leakage
- 3.6.1.1 Primary CONTAINMENT INTEGRITY

SR restored to pre TSTF-425 Completion Time

- 3.9.4 Containment Building Penetrations

SRs with COLD SHUTDOWN Frequency and SFCP

Table 4.3-2 – ESFAS Instrumentation SRs

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES SURVEILLANCE IS REQUIRED
7. EMERGENCY FEEDWATER (EFAS)				
d. Automatic Actuation logic (except subgroup relays)	N.A.	N.A.	SFCP(2)	1, 2, 3
Actuation Subgroup Relays	N.A.	N.A.	SFCP(1)(3)	1, 2, 3
e. Control Valve Logic (Wide Range SG Level – Low)	SFCP	SFCP	SFCP~~(5)~~	1, 2, 3

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SRs with COLD SHUTDOWN Frequency and SFCP

Table 4.3-2 – ESFAS Instrumentation SRs (Continued)

(1) Each train or logic channel shall be tested in accordance with the Surveillance Frequency Control Program.

(3) A subgroup relay test shall be performed which shall include the energization/deenergization of each subgroup relay and verification of the OPERABILITY of each subgroup relay. Relays K109, K114, K202, K301, K305, K308 and K313 are exempt from testing during power operation ~~but shall be tested in accordance with the Surveillance Frequency Control Program and during each COLD SHUTDOWN condition unless tested within the previous 62 days~~.

(5) Not Used ~~To be performed during each COLD SHUTDOWN if not performed in the previous 6 months~~.

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SRs with COLD SHUTDOWN Frequency and SFCP

3.4.5.2 Reactor Coolant System Operational Leakage

4.4.5.2.3 Each Reactor Coolant System pressure isolation valve specified in Table 3.4-1, Section A and Section B, shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. In accordance with the Surveillance Frequency Control Program,

b. Not Used ~~Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months~~,

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SRs with COLD SHUTDOWN Frequency and SFCP

3.6.1.1 Primary CONTAINMENT INTEGRITY

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. In accordance with the Surveillance Frequency Control Program by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

~~* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.~~

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SRs with COLD SHUTDOWN Frequency and SFCP

Reason for the Change

- In accordance with TSTF-425, surveillance frequencies may be placed under the SFCP except those frequencies that:
    - Reference other approved programs for the specific interval (i.e., In-Service Testing Program);
    - Are purely event-driven;
    - Are event-driven, but have a time component for performing the surveillance on a one-time basis once the event occurs;
    - Are related to specific conditions (e.g., battery degradation, age and capacity) or conditions for the performance of a surveillance requirement (e.g., "drywell to suppression chamber differential pressure decrease").

SRs with COLD SHUTDOWN Frequency and SFCP

Reason for the Change (continued)

- An "event-driven" frequency is intended to describe conditions that are significant for test performance
  - Example: Each time the control rod is withdrawn to the “full out position”

- While some testing can only be performed during certain plant modes to avoid operational transients, such conditions are a consequence of plant design and are not considered "event-driven"

- Test that are performed in Modes 5 or 6 during routine refueling outages are not considered "event-driven"

SRs with COLD SHUTDOWN Frequency and SFCP

Reason for the Change (continued)

- The four SRs presented above contain a COLD SHUTDOWN frequency in addition to a frequency in accordance with the SFCP
- The COLD SHUTDOWN frequency is not “event-driven”
- The application of the SFCP is challenged by the COLD SHUTDOWN frequencies previously described and, therefore, Entergy proposes to delete the associated references to SR performance during COLD SHUTDOWN

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SRs with COLD SHUTDOWN Frequency and SFCP

Precedent

- Palo Verde Nuclear Generating Station LAR dated September 9, 2014 (ML14202A378), which removed the COLD SHUTDOWN surveillance frequency restriction for ESFAS subgroup relays

- Both Waterford 3 and Palo Verde are digital Combustion Engineering plants with similar ESFAS designs

Event-Driven SR back to pre TSTF-425 Wording

3.9.4 Containment Building Penetrations

4.9.4.2 Verify each required containment purge and exhaust valve actuates to the isolation position on an actual or simulated actuation signal 72 hours prior to performing initial CORE ALTERATIONS ~~in accordance with the Surveillance Frequency Control Program~~ or load movements with or over irradiated fuel within containment.

Event-Driven SR back to pre TSTF-425 Wording

Reason for Change

- The SR associated with actuation verification of containment purge valves is event-driven with a time component and should be removed from the SFCP

- The pre TSTF-425 SR wording associated with containment purge valves was event-driven and Entergy proposes to restore the pre TSTF-425 wording

Summary

- The application of the SFCP is challenged by the COLD SHUTDOWN frequencies previously described and, therefore, Entergy proposes to delete the associated references to SR performance during COLD SHUTDOWN
- The pre TSTF-425 SR wording associated with containment purge valves was event-driven and Entergy proposes to restore the pre TSTF-425 wording

Submittal and Requested Review Schedule

- Entergy is planning on submitting the LAR in April 2024
- Approval of the proposed amendment is requested by March 1, 2025, to support the 26th WF3 refueling outage (RFO26) currently scheduled for Spring 2025

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Waterford 3

Comments and Discussion