



Risk Management Technical Specifications Initiative 5b, Surveillance Frequency Control Program

June 29, 2011

Table-Top Exercise

Initiative 5b – Surveillance Frequency Control Program

- **Description:** The requirement to perform the surveillance remains in TS; the Surveillance frequency is adjusted outside TS by implementing a TS program using a staff-approved methodology referenced therein; the new frequency must satisfy both quantitative & qualitative criteria.
- **Implementation:** Methodology is in NEI 04-10 R1; PRA technical adequacy / quality.
- **Status:** Limerick was pilot: Large number of operating plant applications received to date.

Benefits of Surveillance Frequency Control Program

- Optimize SR Frequencies
- Maximize Availability
- Increase Equipment Life
- Maintain TS Requirements
- Enhance Safety

Initiative 5b

- Retain surveillance requirements in Tech Specs
- Relocate SR frequencies/test intervals to licensee-controlled document (i.e., TRM)
- Surveillance test interval (STI) adjustment
- Change interval based on risk-informed process
- Tempered by performance and commitments
- Process Steps

I5b NEI 04-10 Process

- Selection of SR Frequency for adjustment
- Commitment check
- Qualitative & Quantitative criteria:
 - Licensee must satisfy both
- Quantitative criteria consistent w/RG1.174
- Expert Panel reviews, approves or rejects proposed changes & documents results
- Monitor, feedback, re-assessment

I5b Implementation Structure

Program Requirements in Technical Specifications Administrative Controls

- Methodology/Guidance Document (NEI 04-10) referenced in Tech Specs by revision number & date
- Requires License Amendment to adopt methodology unless in DCD TS
- Similar to other programs referenced by Tech Specs that control SR frequencies outside of Tech Specs, such as:
 - Inservice Testing Program
 - Primary Containment Leak Rate Testing Program

Integrated Decision-making Panel (IDP) Charter

- Required & Defined by NEI 04-10 & Tech Spec Admin Controls

PRA Quality Must be Adequate

- Internal events PRA:
 - Use ASME standard & RG 1.200
 - Establish Basis for PRA Technical Adequacy Sufficient to Meet Adequacy Requirements (e.g., ASME capability cat 2)
 - Use PRA Peer Review Findings & Observations
 - Use results of Self Assessments to identify where PRA does not meet the prescribed basis (ASME Capability Category 2)
 - Assess the impact of ASME Supporting Requirements that are met; upgrade PRA
- External Events, Transients, & Shutdown Risk
- Account for application specific key sources of uncertainty (e.g., PRA assumptions)

Limerick Initial Candidate Surveillances

- CRD notch testing
- SGTS/RERS flow
- 4kV under-voltage relays
- LOCA/LOOP logic
- Main steam isolation valve position (RPS)
- Redundant reactivity control system

From Federal Register / Vol. 74, No. 127 / Monday, July 6, 2009 / Notices:

(TSTF) "Section 1.0, 'Introduction,' states that all Surveillance Frequencies can be relocated except those meeting four conditions. The first three conditions are a restatement of the conditions described in TSTF-425, Rev. 2, Section 2.0, 'Proposed Change.' The fourth condition, 'Frequencies that 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')."

From TSTF-425, Rev. 2:

- Frequencies that reference other programs for the specific interval (such as the Inservice Testing Program or the Primary Containment Leakage Rate Testing Program)
- Frequencies that are event driven (such as "Each time the control rod is withdrawn to the 'full out' position")
- Frequencies that are time driven (such as "Once within 12 hours after > 25% RTP").