

efficiency bulletin

March 23, 2017

Efficiency Bulletin: 17-11 Maximize Implementation of the Surveillance Frequency Control Program

Develop a strategic implementation plan and institute management-established goals to fully implement the benefits of a surveillance frequency control program (SFCP).

Addressees: Chief nuclear officers, NEI APCs and INPO APCs

Issue: RIO-04, Fully Utilize Tech Spec Surveillance Frequency Extensions

Summary of Efficiency Opportunity

- Desired end-state—Sites have NRC approval to implement SFCP and have a fully developed plan, schedule and management-established goals to fully realize the benefits.
- Value proposition (vision of excellence)—Risk information and operating experience can be used to optimize the frequency of surveillances dictated by technical specifications, such that surveillances can be extended to align required plant resources efficiently and decrease equipment challenges.
- Why is it important?—Greatly improves economic performance by reducing the number of surveillances performed during on line and outage periods. Additionally, less surveillance reduces the probability of plant transients and challenges to safety systems and reduces wear and tear on equipment due to testing.

Color Code: Green

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- Industry benchmark value(s)—Based on operational experience, it is expected that sites that fully utilize TSTF-425 will save substantial operational costs and reduce resources necessary to perform surveillances, while maintaining plant safety and reliability.
- Measure of effectiveness—
 - Completion of surveillance test intervals (STIs) identified in implementation plan.
 - Increase in outage critical path hours saved, as measured by person-hour reductions associated with on line and outage STIs.
 - Implementation of SFCP does not increase critical component failures or adversely affect the equipment reliability index.

Relevant Standards

- Performance Objectives and Criteria (INPO):
 - ER.2, Criterion 15: Engineering programs for equipment performance monitoring and testing detect degradation and allow corrective actions to be implemented before unanticipated failures occur. Engineering programs are kept current with industry improvements and operating experience to support safe, reliable equipment operation.
 - CM.1, Criterion 1: Existing plant conditions or operating practices that potentially create low design or operating margin are evaluated and dispositioned in a manner commensurate with the related risk.
- INPO 15-011, Principles for Excellence in Integrated Risk Management: Principle 4: A consequence-biased approach is applied to risk determination, and decisions relating to extending test frequency intervals.

Relevant Regulatory Requirements

- Regulatory Guide 1.174, An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions On Plant-Specific Changes to the Licensing Basis
- Regulatory Guide 1.177, An Approach for Plant-Specific Risk-Informed Decision-making: Technical Specification
- Regulatory Guide 1.200, An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities

Guidance

- Traveler TSTF-425, Revision 3, Relocate Surveillance Frequencies to Licensee Control - RITSTF [Risk-Informed Technical Specifications Task Force] Initiative 5b
- NEI 04-10, Rev 1, Risk-Informed Technical Specifications Initiative 5b
- NEI 05-04/07-12/12-06 Appendix X: Close Out of Facts and Observations (F&Os)

Recommended Industry Actions

- Establish a senior management sponsor and allocate appropriate resources.

Key to Color Codes:

Red: NSIAC initiative – full participation required for viability

Blue: Action expected at all sites, but is not needed for broad industry viability

Green: Utility discretion to implement, consistent with its business environment

- Verify that the NRC has previously approved relocation of surveillance frequencies to licensee control or submit a license amendment request consistent with TSTF-425 Traveler to the NRC for approval.
 - Conduct Facts and Observations Closure Process on those PRA models used in the submittal.
- Review surveillances that are within the scope of the SFCP and prioritize STIs adjustments based on efficiency benefits.
- Establish utility goals and metrics for implementation of STI evaluations.

Change Management Considerations

Industry Activities

- Industry webinar to provide background for initiative, industry peer discussion, and provide an open forum to clarify expectations and ask questions. Webinar information can be found at <https://web.inpo.org/Pages/Nuclear-Promise-Issues.aspx>
- NEI Risk-Informed Tech Spec Task Force to track implementation of the SFCP, provide ranking tools, high value STIs and share operating experience.
- Industry groups (e.g., owners groups, STARS) continue to develop generic surveillance frequency extension packages.

Company Actions

- Appropriate training should be provided on SFCP implementation and benefits.
- Goals and metrics should be communicated to the sites and reviewed by management periodically.
- Program leads from utilities should participate on the NEI SFCP task force to obtain and share operating experience.
- Utilities should consider tracking cost savings from STI adjustments and communicate to NEI SFCP Task Force.

Guidelines

- Consistent with expectations detailed in NEI 04-10, Revision 1, performance monitoring and periodic assessment are required to ensure that extended surveillances do not result in unacceptable degradation of equipment performance.
 - A performance monitoring strategy will be developed to provide confidence that the equipment performance is consistent with the considerations of the overall SFCP process and is not degrading such that the analysis assumptions and expert panel judgments are no longer valid.
 - For certain cases, existing performance monitoring required by the maintenance rule is adequate for SSCs whose surveillance frequencies are controlled under the SFCP.
 - The output of the performance monitoring will be periodically reassessed and appropriate adjustments made to the surveillance frequencies.

Report Your Site's Results

Please report your company's implementation of this improvement opportunity, including the date of completion. Send this information along with your company point of contact to EfficiencyBulletin@NEI.org.

Industry Contacts

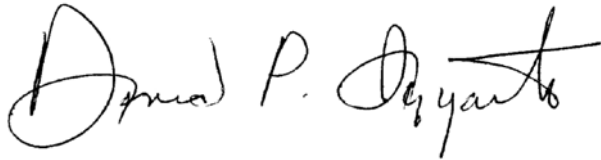
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