Purpose of System Engineer Evalulation

- The purpose of the System Engineer evaluation is to ensure that the system can support the STI change in terms of its performance and experience.

SFCP System Engineer Evaluation

System Engineer evaluation of a surveillance interval change covers:

- Current performance
- Commitment review
- Defense in depth review
- OE review
- Performance monitoring

Commitment review

- Use commitment tracking tools to search for commitments
- Evaluate current basis for frequency
- TS basis section
- code, standard or commitment
- vendor manual
- Is the frequency based on a commitment?
- ex. In response to xx, we agreed to test yy monthly to detect zz failure mechanism
- If based on a commitment ,can we change it?
- If no, can't change the frequency

Commitments

- Commitments can be direct-
  - UFSAR commits to a RG that has test frequency in it (ex. RG 1.108 for EDGs)
  - Response to GL or in a LAR

  Can be indirect-

  by a reference to a document

  by an internal response to a vendor document such a W technical letter or WCAP

Current performance

- Check ST history for failures (6yrs online test, 10yrs outage test)
- Are test failures from what the test is looking for or other
- Is it a fail to start or test box failure?
- Check PM history
- is the test part of the PM strategy?
- is the test doing equipment conditioning?
- Lubrication, contact wiping
- Check CM history
- are failures from what the test is looking for or other?

Current performance continued

- Check Maintenance rule status
- is it a(1)?
- If it's a(1) then system performance may not support the change

OE

- Look at site OE
- Look at industry OE
- INPO OPEX
- Are there failures that we may experience that the test would detect?
- Are there failures from less frequently test equipment?
- Look at vendor information
- SILs,TIL,WCAPs
- part 21
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Defense in depth

- Are we affecting the defense in depth of the system or function?

Qualitative issues

- If instrumentation, consider setpoint drift.
- Are there time based failure mechanisms that could become an issue if testing is extended
- Is the test a conditioning exercise
- Is there alternate testing
- Is a harsh environment a consideration

Phased implementation

- Phased implementation is using one or more intermediate frequencies before the final extended frequency is reached.
- Consider when the change in frequency is significant (ex. Monthly to Annual)
- Consider when there is not data on operation with a long test interval
- Perform several successful tests at the intermediate frequency before moving on.

Monitoring

- Monitoring criteria need to be set to ensure performance of the equipment remains adequate
- If the Maintenance Rule Performance criteria adequately look for the function being tested, they can be used.
- Otherwise develop a monitoring criteria that will show is performance is being maintained