

Public Meeting on Proposed Changes to Enhance the Cybersecurity Baseline Inspection

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Meeting Topics

- Background: Inspection Challenges
- Present alternate options to conduct inspections
- Qualitative and quantitative analysis of alternate options and evaluation
- Obtain feedback from stakeholders and the public

Reasons for Reviewing Alternate Frequencies and Team Composition

- Completing biennial cybersecurity inspections in one-week onsite has been challenging for the NRC and the Industry.
- Sometimes a high number of questions and requests present a challenge to both the NRC and licensees (resources, SMEs not available during the inspection week, prolongation of direct inspection effort.)
- There are lot of issues identified that need to be dispositioned within a very short turnaround prior to exiting during the onsite week.
- The inspection team does not have sufficient time to assess licensee responses when licensees challenge issues and potential findings.
- Large inspection team (4-person team) – typical engineering inspection is 2 onsite weeks with an in-between week which provides the inspection team and licensee response team more time to address identified issues.

NRC's Response to Cybersecurity Inspection Challenges

- Established a working group with representatives from all four regions to analyze and develop solutions to address identified challenges.
- Consider alternate inspection completion frequencies (e.g. annual, triennial, etc.) and team composition to gain efficiencies and effectiveness.
- Evaluate all potential options, including maintaining the current biennial inspection

Alternate Options

Inspection Frequency (Yrs.)	Inspection Team Members	Onsite Inspection Weeks
Annual	2	1
Biennial [Current Inspection Frequency]	4	1
Triennial - [3 Person Team]	3	2
Triennial [4 Person Team]	4	2
Quadrennial	4	2

Team Composition and Direct Inspection FTE

Inspection Frequency (Yrs.)	Inspection Team Members	Onsite Inspection Weeks	Inspection Cycles in a 12 yr. Period.	Direct Inspection FTE (Onsite Weeks) in a 12 yr. Period.
Annual	2	1	12	24 No DIE Budget Impact
Biennial [Current Inspection Frequency]	4	1	6	24 Current DIE Budget
Triennial - Team Light [3 Person Team]	3	2	4	24 No DIE Budget Impact
Triennial [4 Person Team]	4	2	4	32 **Significant DIE Budget Impact**
Quadrennial	4	2	3	24 No DIE Budget Impact

*DIE = Direct Inspection Effort

RISK ASSESSMENT OF POTENTIAL SOLUTIONS

TWO METHODS WERE USED TO EVALUATE THE
PROBLEM STATEMENT:

- QUALITATIVE : BOOLEAN ALGEBRA
- QUANTITATIVE : RATINGS FROM LEAST FAVORABLE
TO MOST FAVORABLE TO ACHIEVE ACCEPTANCE
CRITERIA

QUALITATIVE EVALUATION RESULTS

	Options for Future Cyber Security Inspection Frequencies					
	Option 1 [Biennial] Maintain the Current Biennial Inspection, the Current Inspection Scope and the Current 4 Person Team	Option 2 [Biennial-Scope Light] Maintain the Current Biennial Inspection, Reduce the Inspection Scope and Maintain the Current 4 Person Team	Option 3 [Annual] Change to an Annual Inspection, Split the Scope in Half and Reduce to a 2 Person Team	Option 4 [Triennial-Team Light] Change to an Triennial Inspection, Maintain the Current Inspection Scope and Reduce to a 3 Person Team	Option 5 [Triennial] Change to an Triennial Inspection, Maintain the Current Inspection Scope and Maintain the Current 4 Person Team	Option 6 [Quadrennial] Change to an Quadrennial Inspection, Maintain the Current Inspection Scope and Maintain the Current 4 Person Team
Option colors depict, in relation to other options, lowest to highest preference: Red (LOWEST), Orange, Yellow, Green, Blue, Violet (HIGHEST)	Direct Inspection Effort: 1 Onsite Inspection Wk. 2 Inspectors & 2 Cyber Specialists	Direct Inspection Effort: 1 Onsite Inspection Wk. 2 Inspectors & 2 Cyber Specialists	Direct Inspection Effort: 1 Onsite Inspection Wk. 1 Inspector & 1 Cyber Specialist	Direct Inspection Effort: 2 Onsite Inspection Wks. with 1 In-between Wk. 2 Inspectors & 1 Cyber Specialist	Direct Inspection Effort: 2 Onsite Inspection Wks. with 1 In-between Wk. 2 Inspectors & 2 Cyber Specialists	Direct Inspection Effort: 2 Onsite Inspection Wks. with 1 In-between Wk. 2 Inspectors & 2 Cyber Specialists
	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE
	TRUE	FALSE	FALSE	TRUE	TRUE	TRUE
	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE
	FALSE	TRUE	TRUE	TRUE	FALSE	FALSE
	TRUE	TRUE	TRUE	MAYBE	MAYBE	MAYBE
	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE
	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
	FALSE	TRUE	FALSE	TRUE	TRUE	TRUE
	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE
No change impact on regions	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE
No inspection scope changes needed.	TRUE	FALSE	FALSE	TRUE	TRUE	TRUE
Inspection team has adequate time to complete scope.	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE
Inspection scope efficiently uses FTE resources.	FALSE	TRUE	TRUE	TRUE	FALSE	FALSE
Inspection teams become more proficient.	TRUE	TRUE	TRUE	MAYBE	MAYBE	MAYBE
Emerging threats and vulnerabilities (e.g. AI, Machine Learning, etc.) can be assessed in a timely manner.	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
More frequent assessment of licensee cyber programs.	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
No inspection team workarounds needed.	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE
Licensee's inspection support resources increase.	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
Adequate time for inspection team to disposition	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
Corrective action review is timely.	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE
Inspector preparation will be more effective.	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
No challenges to scheduling inspections.	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
No challenges to staffing inspections.	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
No challenges for licensee to provide corporate	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
Addresses licensee biennial inspection concerns.	FALSE	FALSE	FALSE	TRUE	TRUE	TRUE
No change in agency's budget.	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE

QUANTITATIVE EVALUATION RESULTS

Options for Future Cyber Security Inspection Frequencies						
	Option 1 [Biennial] Maintain the Current Biennial Inspection, the Current Inspection Scope and the Current 4 Person Team	Option 2 [Biennial-Scope Light] Maintain the Current Biennial Inspection, Reduce the Inspection Scope and Maintain the Current 4 Person Team	Option 3 [Annual] Change to an Annual Inspection, Split the Scope in Half and Reduce to a 2 Person Team	Option 4 [Triennial-Team Light] Change to an Triennial Inspection, Maintain the Current Inspection Scope and Reduce to a 3 Person Team	Option 5 [Triennial] Change to an Triennial Inspection, Maintain the Current Inspection Scope and Maintain the Current 4 Person Team	Option 6 [Quadrennial] Change to an Quadrennial Inspection, Maintain the Current Inspection Scope and Maintain the Current 4 Person Team
Cells are graded from 1-5, measuring how well the option achieves the overall objective for each criterion. (5 = Strongly Agree thru 1 = Strongly Disagree) Option colors depict, in relation to other options, lowest to highest preference: Red (LOWEST), Orange, Yellow, Green, Blue, Violet (HIGHEST)	90	99	88	115	111	109
Overall Score						
No change impact on regions	5	5	1	4	4	3
No inspection scope changes needed.	5	3	4	5	5	5
Inspection team has adequate time to complete scope.	2	5	4	5	5	5
Inspection scope efficiently uses FTE resources.	3	5	4	4	2	2
Inspection teams become more proficient.	4	4	5	3	3	3
Emerging threats and vulnerabilities (e.g. AI, Machine Learning, etc.) can be assessed in a timely manner.	4	4	5	2	2	1
More frequent assessment of licensee cyber programs.	4	4	5	3	3	2
No inspection team workarounds needed.	1	2	4	5	5	5
Licensee's inspection support resources increase.	2	2	1	4	4	5
Adequate time for inspection team to disposition	2	2	2	5	5	5
Corrective action review is timely.	4	4	5	3	3	1
Inspector preparation will be more effective.	2	3	4	5	5	5
No challenges to scheduling inspections.	4	4	1	5	4	5
No challenges to staffing inspections.	4	4	2	5	5	5
No challenges for licensee to provide corporate	2	2	1	4	4	4

Next Steps

- Obtain feedback from the stakeholders
- Assess and evaluate the feedback
- Present final recommendation to management
- Revise inspection procedure with management approval
- Public meeting to present revised procedure

QUESTIONS and COMMENTS?



Questions



Comments