Cybersecurity Inspections Lessons Learned

Public Meeting (Closed)

February 15, 2024
10:00 A.M. – 12:00 P.M.

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Topics

- Key Messages
- Background
- 2023 Top 3 Trends (MTM Violations & Cross-Cutting Aspects)
- Observations
- Lessons Learned & Insights
- Next Steps
- Q & A

Key Messages

- This meeting focuses on cybersecurity baseline inspection activities conducted during CY 2023.
- Staff identified lessons learned and trends from the 2023 cybersecurity inspections.
- This effort will support identification of any actions needed to ensure efficiency and effectiveness of future inspections.

Background

- Objectives of IP 71130.10
  1. *To provide assurance that digital equipment associated with safety, security, or emergency preparedness (SSEP) functions are adequately protected against cyber-attacks in accordance with (10 CFR) 73.54 and the licensee's approved cyber security plan (CSP).*

  2. *To verify that CSP changes and reports are in accordance with 10 CFR 50.54(p).*

Inspection Procedure 71130 Attachment 10, “Cyber Security,” (ML21155A209)

Background (continued)

- Inspection Requirements

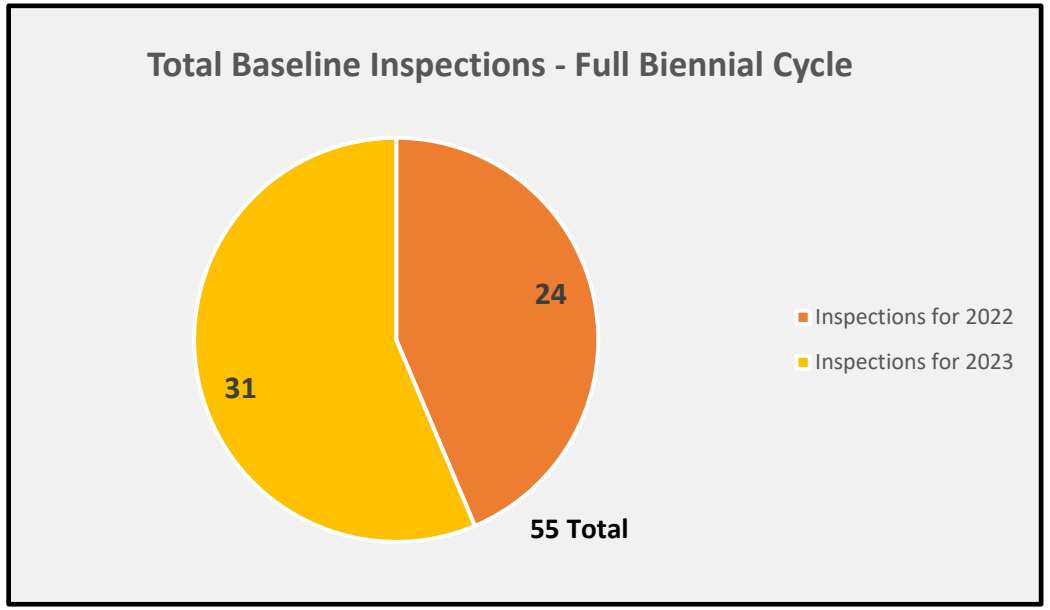
Excerpt from IP 71130.10, page 2:

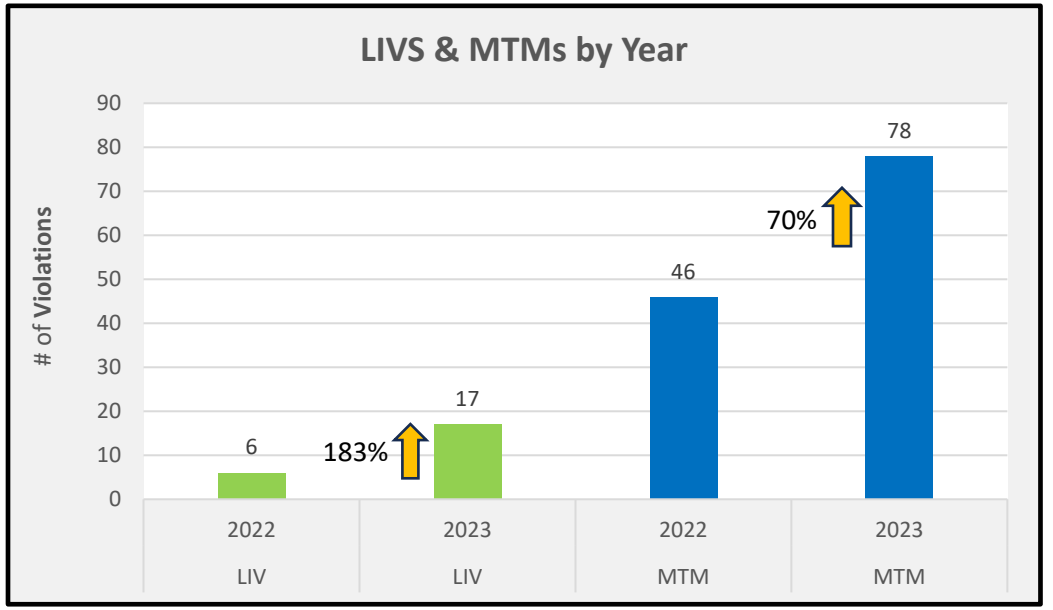
  - This inspection requirement range for completion is as follows:
    - minimum of three inspection requirements,
    - nominal four inspection requirements, and
    - maximum, based on unusual circumstance, or special considerations, five inspection requirements.

  - Inspection teams considered the following special considerations during development of cybersecurity team inspection plans:
    - First biennial cycle completion using IP 71130.10
    - High number of inspection findings during the biennial cycle

Inspection Procedure 71130 Attachment 10, "Cyber Security," (ML21155A209)

Inspections and Violations





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2023 Top 3 Trends

MTM Violations

Most commonly cited NEI 08-09[1] security controls:

1. Vulnerability Management (*E.12*)
2. Baseline Configuration (*E.10.3*)
3. Monitoring Tools and Techniques (*E.3.4*)

Cross-Cutting Aspects (CCAs)

Most commonly cited CCAs as described in NRC IMC 0310[2]:

1. Conservative Bias (*H.14*)
2. Resources (*H.1*)
3. Procedure Adherence (*H.8*)

[1] NEI 08-09, "Cyber Security Plan for Nuclear Power Reactors," Revision 6, Addendum 1 Markup dated 2017 (ML17079A423)
[2] IMC 0310, "Aspects Within The Cross-cutting Areas," (ML19011A360)

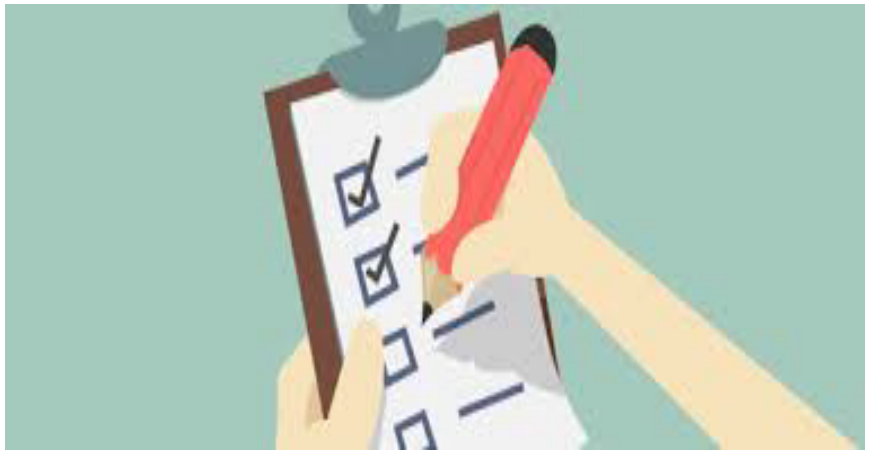
Observations

- Resources – Staffing and retention of well qualified cyber staff
- Training – properly trained staff and knowledge transfer (particularly, *specialized training*)
- Documentation – insufficient documentation (*i.e. CDA assessments and alternate controls*)
- Licensee cyber staff not thoroughly familiar with the requirements, guidance, or misinterpretation of the requirements

Lessons Learned

- A one-week inspection is challenging and resource intensive
- Inspectors have observed that the best performing sites and well-maintained cybersecurity programs have strong support from senior management
- Documentation still does not reflect the whole story
- Inspectors observed that some licensee staff lacked experience with regulatory requirements, background, and guidance related to the implementation of the cybersecurity program.

Insights



- Accurate and complete documentation improvement reduces the number of questions.

- The program is in the maintenance phase. Inspection focus on the defense-in-depth approach

- The NRC will continue to enhance the oversight program.

  - IMC 0612 Appendix E, "Examples of Minor Issues"

Next Steps

- An agency working group was established to evaluate alternate inspection procedure frequencies and team composition

- Reasons for establishing the working group:
  - Completing cybersecurity biennial inspections in one onsite week has been a challenge for regional inspection teams.
  - Inspection teams and licensee response teams need more time to address questions and disposition identified issues.

- The working group expects to present solutions that will gain efficiency and effectiveness

- The working group will develop recommendations for management consideration. Any proposed changes to the inspection procedure will be discussed at a later public meeting.

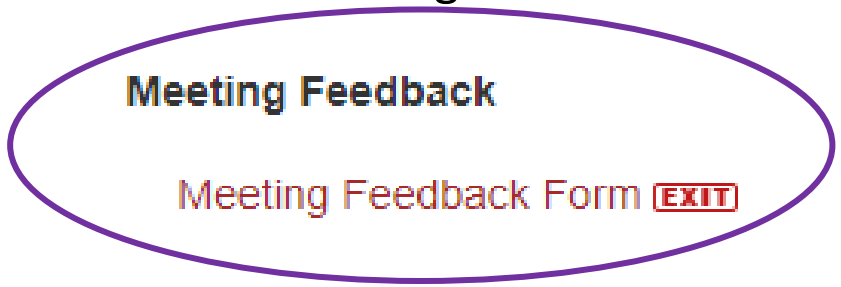
Questions & Discussion

Trends → Observations → Lessons Learned → Increase Efficiency

Submitting Meeting Feedback & POC

To submit feedback and comments please:

- Navigate to this meeting on the NRC Public Meeting Schedule
- Click the Meeting Feedback Form link



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