



# **NRC Reactor Oversight Process (ROP) Bimonthly Public Meeting**

January 29, 2026

# Purpose, Outcome, Plan/Agenda

## Purpose of the Presentation

- To discuss ROP Baseline Inspection Program topics.

## Desired Outcome

- Communicate proposed revisions to the inspection program, inspection procedures, and guidance to industry and members of the public.

## Agenda

<b>9:00am</b>	Introductions and Opening Remarks	Phil McKenna and NEI
<b>9:05am</b>	Update on the Recommend Revision for Security Baseline Inspection	Jeff Bream
<b>9:20am</b>	Emergency Response Facility and Equipment Readiness Performance Indicator	Don Johnson
<b>9:25am</b>	Overview of White Paper on Microreactor Oversight	Casey Smith
<b>9:45am</b>	Update on SECY-25-0045, "Recommendations for Revising the ROP"	Phil McKenna
<b>10:00am</b>	Update on the Recommended Revisions to the ROP Baseline Inspection Program	Phil McKenna
<b>10:15am</b>	Break	
<b>10:30am</b>	Performance Indicator Discussion and Next Steps	NEI
<b>11:05am</b>	Open Discussion	NRC, NEI, Industry
<b>11:25am</b>	Additional Opportunity for Public Comments	Members of the Public
<b>Noon</b>	Meeting Adjourn	

# Security Inspection Program Update

Jeff Bream

Senior Security Risk Analyst

Security Oversight Support Branch

Office of Nuclear Security and Incident  
Response

# Key Messages

Proposed changes to the security baseline inspection program, including force-on-force (FOF) program, would (subject to Commission decision):

- Estimated 41-48% reduction in overall direct inspection effort and time onsite annually, while maintaining reasonable assurance of adequate protection.
- Streamline the baseline security inspection program from 11 inspection procedures (IPs) to two annual IPs and two triennial IPs.
- Identify inspection activities suitable for completion by resident inspectors (i.e., requires minimal additional training for resident inspectors).
- Prioritize inspection of most risk-significant samples and licensee performance.

# ROP Baseline Security Inspection Program

- NSIR has consolidated security aspects of the ROP paper with the FOF paper to provide the Commission with a complete picture of the security baseline inspection program.

Procedure Number	Freq	Title	Min Samples	Minimum Procedure Hours	New Min Hours (Annualized)
71130.10	T	Cybersecurity	3	63	21
71130.15	A	Security Operations (Resident Inspectors)	6	16	16
71130.16	A	Security Performance (Regional Inspectors)	4	64	64
71130.17	T	Force-on-Force Exercise	1	144-208	48 - 69
<b>ANNUALIZED TOTAL</b>					<b>149 – 170</b>

\* Subject to Commission approval.

# Further Enhancements

- Implementation of a scoring methodology
  - Bounds the complexity of exercise scenarios.
  - Minimum and maximum thresholds will ensure exercises are sufficiently challenging yet realistic in incorporating DBT attributes.
- Modify performance testing tactics that do not allow for equitable evaluation and testing.
  - Mitigates challenges for tactics that are difficult to simulate and assess as credible threat vectors (e.g., unattended openings which are difficult to simulate).

FOF exercises will continue to simulate the DBT to the maximum extent practicable. Other security baseline inspections will be used to assess pathways and viable tactics for potential vulnerabilities.

# Independent Assessment

- Stakeholder engagement related to the FOF exercise scenarios.
- Independent assessment identified five recommendations aimed at ensuring scenario realism, mitigating scope expansion, and improving planning efficiency.
  - Escalation process timeline
  - Scenario refinements
  - Scenario realism
    - Scoring Methodology
    - Role of the insider
  - Visitor Access Controls – non-compliant visitors

# Security Inspection Program Update

Don Johnson

Senior Emergency Preparedness Specialist

Policy and Oversight Branch

Office of Nuclear Security and Incident Response

# Emergency Response Facility and Equipment Readiness Performance Indicator (ERFER-PI)

- The new ERFER-PI was implemented on January 1, 2025. The NRC Staff (NSIR/DPR/POB) would like to discuss the effectiveness of this revision at the March 2026 ROP Bi-monthly meeting.

# Overview of White Paper on Microreactor Oversight

Casey Smith

Reactor Operations Engineer

Reactor Assessment Branch

Office of Nuclear Reactor Regulation

## **ADVANCE Act Section 208**

Section 208 states, in part, the Commission shall no later than 18 months after the date of enactment of this Act, develop risk-informed and performance-based strategies and guidance to license and regulate micro-reactors . . . Including strategies and guidance for . . . oversight and inspection. In addition, the Commission shall consider the unique characteristics of microreactors (physical size, design simplicity, and source term)

**Complete NLT: January 9, 2026**

# OVERSIGHT AND INSPECTION STRATEGIES FOR MICROREACTORS DURING OPERATIONAL PHASE

- Leveraging aspects of the NPUF oversight program and the ROP
- Oversight and inspection will be based on the following guiding principles:
  - Effective
  - Risk-informed
  - Performance-based
  - Innovative
  - Scalable
  - Focus on significant maintenance periods
- Performance Monitoring
  - Performance Indicator Program
- Assessment Program
- It is not anticipated resident inspectors will be permanently stationed at microreactor deployment sites
- “Oversight and Inspection Strategies for Microreactors During Operational Phase”, dated December 9, 2025: [ML25329A275](#)

# Next Phase – Development to Implementation

- Develop the initial framework for operational oversight for advanced reactors
- Touchpoints with NRC management advisory committee
- Continue external stakeholder engagement
- Comprehensive training for inspectors and oversight staff

**Complete by: July 9, 2027**

# Overall Baseline Inspection Program Update

Phil McKenna, Director  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

# Update on SECY-25-0045 and the Recommended Revision to the ROP Baseline Inspection Program

- Update on SECYs-25-0045
  - Awaiting Final Staff Requirements Memorandum
- Update on the Recommended Revision to the ROP Baseline Inspection Program
  - Two SECYs:
    - Recommendations to Revise the Reactor Oversight Process Baseline Inspection Program
    - Revising the Security Baseline Inspection Program including the Force-on-Force Inspection Program

# Revised ROP Overview

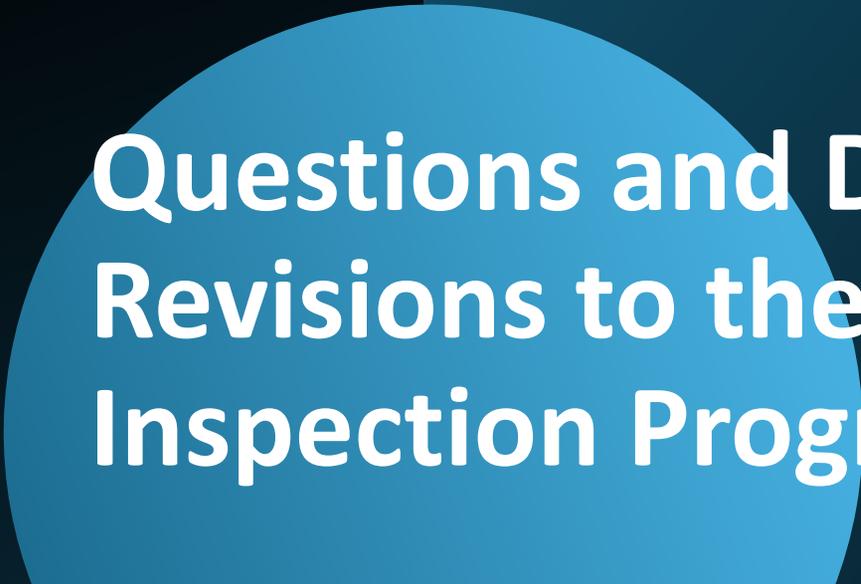
## KEY MESSAGES

- 21 IPs currently used for the NRR ROP BIP
- 5 IPs will be sunset
  - 71111.06, Flood Protection Measures (attributes shifted to .01 and .04)
  - 71111.07, Heat Exchanger/Sink Performance (attributes shifted to .24)
  - 71111.12, Maintenance Effectiveness (requirements shifted to .24)
  - 71111.18, Plant Modifications (attributes shifted to .04, .11, engineering inspection)
  - 71151, Performance Indicator Verification (reduced verification shifted to Plant Status, or other IPs)
- The 5 engineering IPs will be consolidated into one newly developed IP
- **12 IPs will remain in use**

IP	Title	Issue Date	Action
<a href="#">71111.01</a>	Adverse Weather Protection	8/1/2022	Maintained
<a href="#">71111.04</a>	Equipment Alignment	9/19/2023	Maintained
<a href="#">71111.05</a>	Fire Protection	8/1/2022	Maintained
<a href="#">71111.06</a>	Flood Protection Measures	8/1/2022	Sunset
<a href="#">71111.07</a>	Heat Exchanger/Sink Performance	8/18/2023	Sunset
<a href="#">71111.08</a>	Inservice Inspection Activities	10/16/2023	Maintained
<a href="#">71111.11</a>	Licensed Operator Requalification Program and Licensed Operator Performance	12/6/2024	Maintained
<a href="#">71111.12</a>	Maintenance Effectiveness	3/31/2021	Sunset
<a href="#">71111.13</a>	Maintenance Risk Assessments and Emergent Work Control	8/1/2022	Maintained
<a href="#">71111.15</a>	Operability Determinations and Functionality Assessments – Effective January 1, 2026	4/9/2025	Maintained
<a href="#">71111.18</a>	Plant Modifications – Effective Date January 1, 2025	11/21/2024	Sunset
<a href="#">71111.20</a>	Refueling and Other Outage Activities	4/6/2022	Maintained
<a href="#">71111.21M</a>	Comprehensive Engineering Team Inspection	6/27/2025	New IP
<a href="#">71111.21N.03</a>	Commercial Grade Dedication	2/16/2023	Referenced
<a href="#">71111.21N.04</a>	Age-Related Degradation	4/9/2025	Referenced
<a href="#">71111.21N.05</a>	Fire Protection Team Inspection (FPTI)	6/12/2019	Referenced
<a href="#">71111.24</a>	Testing and Maintenance of Equipment Important to Risk	3/7/2023	Maintained
<a href="#">71151</a>	Performance Indicator Verification – Effective Date 01/01/2025	12/12/2024	Sunset
<a href="#">71152</a>	Problem Identification and Resolution (PI&R)	10/31/2023	Altered
<a href="#">71153</a>	Follow up of Events and Notices of Enforcement Discretion	9/16/2020	Maintained

# Revised ROP Overview

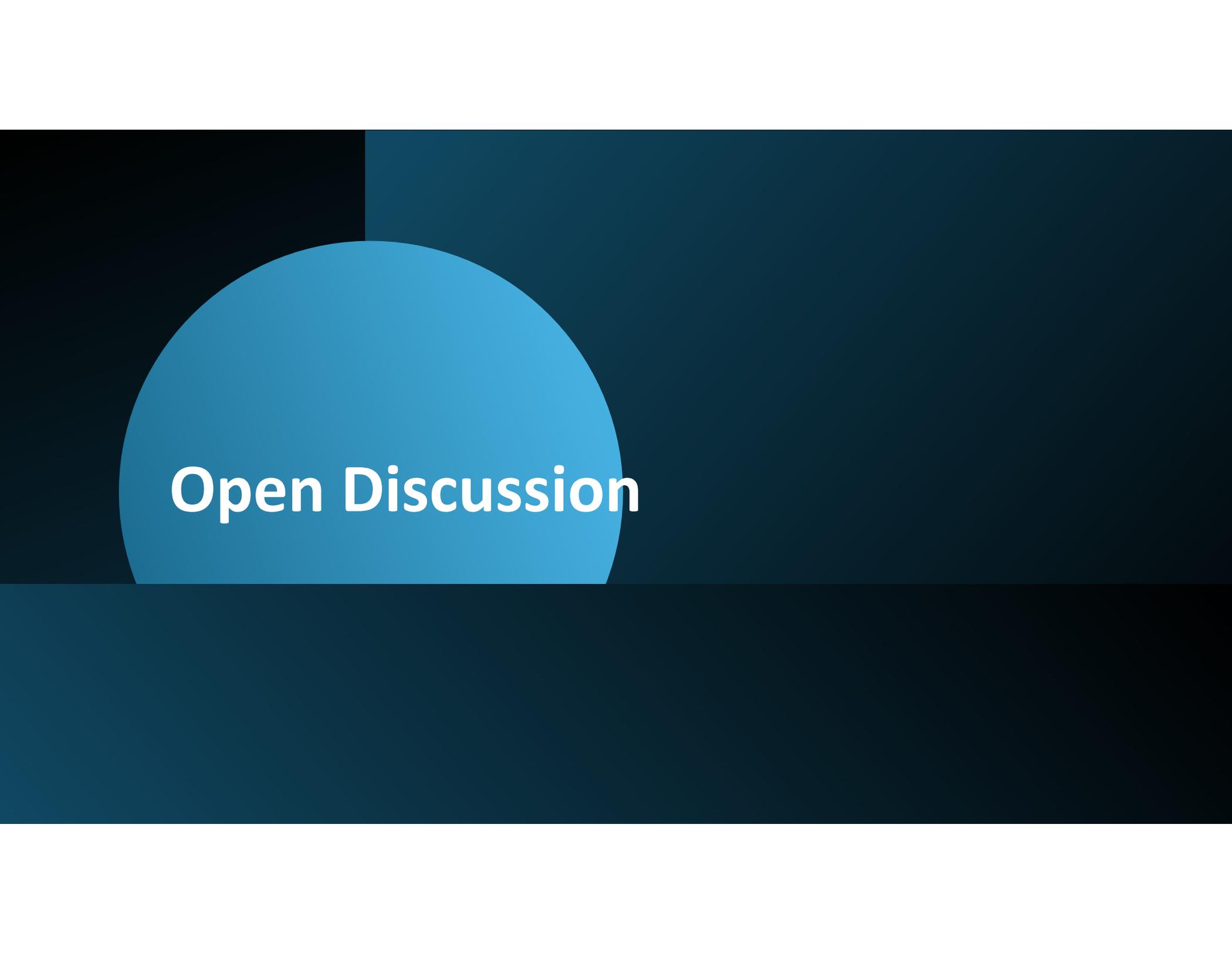
Procedure Series	Current Program Annualized Hours	Proposed Program Annualized Hours	% Change Resource Usage
Reactor Safety Inspection Procedures (IP 71111 Series)	1145	797	-30%
Emergency Preparedness Inspection Procedures (IP 71114 Series)	144	63	-56%
Radiation Protection Inspection Procedures (IP 71124 Series)	115	71	-38%
Security Procedures Inspection (IP 71130 Series)	287	149	-48%
PI Review, PI&R, Event Follow-Up Inspection Procedures	327	165	-49%
<b>TOTAL</b>	<b>2018</b>	<b>1245</b>	<b>-38%</b>



# Questions and Discussion on the Revisions to the ROP Baseline Inspection Program

# Performance Indicator Discussion and Next Steps

Nuclear Energy Institute



# Open Discussion