

NRC INSPECTION MANUAL

NSIR/DSO

INSPECTION PROCEDURE 81000.03

PERFORMANCE EVALUATION PROGRAM

Effective Date: **January 1, 2025**

PROGRAM APPLICABILITY: IMCs 2200 A, **2562**

81000.03-01 INSPECTION OBJECTIVE(S)

- 01.01 To verify that the licensee has developed and is implementing, or is prepared to implement, its Performance Evaluation Program (PEP) that demonstrates and assesses the effectiveness of the onsite physical protection program and protective strategy and the capability of the armed response team to carry out their assigned duties and responsibilities during safeguards contingency events in accordance with the regulatory requirements, U.S. Nuclear Regulatory Commission (NRC)-approved security plan, and any other applicable NRC requirement.
- 01.02 To verify that the licensee has developed and is implementing, or is prepared to implement, its **PEP** that assesses the capability of the armed response team to carry out their assigned duties and responsibilities during safeguards contingency events.
- 01.03 To assess the licensee's capabilities relative to conducting force-on-force (FOF) exercises.
- 01.04 To verify that the licensee's physical protection program associated with this sample is designed and implemented, or is prepared to be implemented, to meet the general performance objective of Title 10 of the *Code of Federal Regulations* (10 CFR) 73.55(b).

81000.03-02 INSPECTION REQUIREMENTS

General Guidance

This inspection procedure (IP) was developed to ensure the operational program established for implementation at a plant licensed in accordance with 10 CFR Part 50 or 10 CFR Part 52 meet all NRC requirements and objectives for operational program readiness. Note that this inspection is conducted as licensees activate their operational program in accordance with IMC 2200, Appendix A, "Security Construction Inspection Program," or IMC 2562, "Light-Water Reactor Inspection Program for Restart of Reactor Facilities Following Permanent Cessation of Power Operations." For reactors under construction, this IP is applicable to all power reactors under construction that are subject to oversight under the NRC's Construction Reactor Oversight Process (cROP). For restart of reactor facilities following termination of an operating license, this IP is applicable for transitioning from a decommissioned or extended shutdown reactor facility to an operational power reactor facility subject to the Reactor Oversight Process (ROP). Therefore, verification through observation of activities may not be possible. In such cases, the inspector(s) should review the appropriate licensee procedures and conduct inspections of all associated areas to ensure program compliance upon implementation.

Through verification of the inspection requirements within this IP, inspector(s) shall ensure that the licensee's physical protection program associated with this sample is designed and implemented, or is prepared to be implemented, to meet the general performance objective of 10 CFR 73.55(b).

In preparing to complete this procedure, the inspector(s) should familiarize themselves with relevant documentation which may include, but is not limited to, the licensee's NRC-approved security plans, and site-specific and/or corporate procedures. Specifically, the inspector(s) should apply additional attention to recent security plan changes that could be relevant to the inspection activity.

Each inspector is responsible for ensuring that every sample in the IP is completed and evaluated to a level which provides assurance that licensees are meeting NRC regulatory requirements within the security program area being inspected. The guidance within this procedure is being provided as a tool which: (1) recommends to inspector(s) certain methods and techniques for determining licensee security program compliance and effectiveness related to an inspection requirement; or, (2) clarifies certain aspects of a regulatory requirement associated with a particular inspection requirement. Where minimum sampling numbers are indicated (i.e., at least three intrusion detection system (IDS) zones shall be tested, or at least 20 percent of the total personnel on a shift will be selected for weapons firing, etc.), the inspector(s) should adhere as closely as possible to the numbers identified in the guidance. Inspector(s) may expand the minimum number to aid in determining the extent of the condition, should compliance concerns arise. Completion of other recommended actions contained in this guidance should not be viewed as mandatory and is only intended to assist inspector(s) in determining whether an inspection sample has been adequately addressed. Should questions arise regarding procedural requirements or guidance, inspector(s) should consult with regional management or the Office of Nuclear Security and Incident Response, the program office, for clarification.

One hour has been allocated within the resource estimate of this IP for the inspector(s) to conduct physical protection program status verifications. The purpose of the status verification is to ensure that the implementation of the licensee's physical protection program is maintained in accordance with regulations, licensee security plans, and implementing procedures to determine overall security program operational readiness. The inspector(s) should conduct observations of physical protection program elements, other than those inspected within this procedure, to ensure continued operational readiness.

02.01 Performance Evaluation Program

- a. **Verify the licensee has developed, implemented, or is prepared to implement a PEP that is documented in procedures which describes how the licensee will demonstrate and assess the effectiveness of their onsite physical protection program and protective strategy through tactical response drills and FOF exercises. (10 CFR Part 73, App. B, Sec. VI.C.3.(a) and (b))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should review the licensee's physical security plans (PSPs), implementing procedures, and associated training documentation to verify that the licensee has established measures to implement and maintain a PEP that is documented and describes how the licensee will demonstrate and assess the effectiveness of its onsite physical protection program and protective

strategy through tactical response drills and FOF exercises. The PEP shall be referenced in the site's Training and Qualification Plan and include procedures for the conduct of tactical response drills and FOF exercises designed to demonstrate and assess the effectiveness of the licensee's physical security program, protective strategy, and contingency event response by all individuals with responsibilities for implementing the safeguards contingency plan.

The inspector(s) should determine that the conduct of the exercise supports that the licensee is capable of implementing its PEP. If the inspector(s) determine that the exercise did not support the assessment and evaluation of the licensee's protective strategy, the inspector(s) should determine what aspect of the licensee's PEP was deficient. Some determining factors to consider:

1. substandard training for licensee adversaries which resulted in a scenario that did not challenge the response team capabilities;
2. potential adversary tactics were underutilized;
3. controllers failed to provide timely communications to exercise players;
4. controllers failed to make timely decisions (neutralizing players or allowing players to continue) following engagements involving false cover;
5. licensee failed to reduce the number or magnitude of artificialities (e.g., excessive timeouts used); or;
6. license systems and equipment used for FOF exercises did not provide adequate controls (radio system performance, Multiple Integrated Laser Engagement System (MILES) gear performance, ineffective use of bomb cards (generating simulated alarms for SAS and/or CAS response)).

- b. **Verify the licensee has developed, implemented, or is prepared to implement, a process to conduct tactical response drills and FOF exercises in accordance with the licensee's PSP, protective strategy, and implementing procedures. (10 CFR Part 73, App. B, Sec. VI, C.3.(c))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should review **the licensee's PSP**, implementing procedures, **exercise scenario**, **controller matrix**, and associated training documentation to verify that the licensee has established measures to conduct tactical response drills and FOF exercises in accordance with **the licensee's PSP**, protective strategy, and implementing procedures.

Any inspector-observed deficiencies, observations, or findings that are not identified by the licensee in the documented post-exercise critique must be shared with the licensee and assessed in accordance with IMC 0612, Appendix B, "Issue Screening Directions," as appropriate. Licensee self-identification of deficiencies during drills and exercises is a necessary component of the PEP and failure to identify deficiencies at an appropriate threshold can negatively impact the effectiveness of the PEP and physical protection program.

- c. **Verify the licensee has established measures to ensure that each member of each shift who is assigned duties and responsibilities required to implement the site's safeguards contingency response plan and protective strategy participates in tactical response drills and FOF exercises at the frequency prescribed in 10 CFR Part 73, App. B, Sec. VI. (10 CFR Part 73, App. B, Sec. VI, C.3.(l)(1))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should review the licensee's training documentation (to include a sample of individual training records) to verify that the licensee has established measures to ensure that each member of each shift, who is assigned duties and responsibilities required to implement the site's safeguards contingency plan and protective strategy, participates in at least one tactical response drill quarterly and one FOF exercise annually.

Individuals may participate in one of the following roles to satisfy this requirement as a player: security shift supervisor, response team leader, alarm station operator, armed responder, or armed security officers designated as a component of the protective strategy. Additionally, individuals who are trained and qualified to perform contingency duties for multiple-response team duty positions must participate as a player in drills or exercises for each position for which they are qualified. This requirement can be satisfied by participating in each position during the course of four quarterly drills and one annual exercise during the year (e.g., a security force member can serve as a response team leader in the first quarter drill, a central or secondary alarm station operator during the second quarter drill, and an armed responder in the annual exercise). The inspector(s) should reference Regulatory Guide (RG) 5.75, "Training and Qualification of Security Personnel at Nuclear Power Reactor Facilities," to understand acceptable methods that a licensee may employ for security personnel who are unable to fulfill the annual FOF exercise participation requirement.

The inspector(s) should review a sample of training records to verify that individuals who did not participate as a player in a scheduled annual FOF exercise because of illness, family leave, military deployment, or other circumstances fulfill the annual FOF exercise participation requirement by either completing 40-hours of protective strategy on-the-job training or participate as a player in a limited scope FOF tactical exercise.

- d. **Verify the licensee has developed, implemented, or is prepared to implement a process to document post exercise critiques including failures, deficiencies or other findings in performance, plans, equipment, or strategies for all tactical response drills and FOF exercises. (10 CFR Part 73, App. B, Sec. VI, C.3.(g))**

Specific Guidance

To inspect this requirement, the inspector(s) should review the licensee's training documentation to ensure the licensee has established measures to maintain drill and exercise documentation including the post-exercise critique.

- e. **Verify the licensee has developed, implemented or is prepared, to implement a process to document scenarios and participants for all tactical response drills and FOF exercises. (10 CFR Part 73, App. B, Sec. VI, C.3.(h))**

Specific Guidance

To inspect this requirement, the inspector(s) should review the licensee's tactical response drill and FOF exercise documentation to ensure the licensee documentation includes: the scenario **description**, participants, **and controllers**.

- f. **Verify the licensee has developed, implemented, or is prepared to implement a process to ensure that findings, deficiencies, and failures identified in the training program to include tactical response drills and FOF exercises that adversely affect or decrease the effectiveness of the site's protective strategy are entered into the licensee's corrective action program. (10 CFR 73.55(b)(10), 10 CFR Part 73, App. B, Sec. VI, C.3.(i))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should understand the methodology the licensee uses to disposition each deficiency identified in a drill or exercise and what mechanism(s) the licensee uses to correct those deficiencies. The inspector(s) should ensure that the licensee has established measures to handle deficiencies identified during a drill or exercise consistent with the site's problem identification and resolution, self-assessment, or training program. All deficiencies should be evaluated to ensure proper management, action, and resolution of the deficiencies. Some deficiencies (training and human performance-related) may be addressed through the training program as long as the licensee's evaluation demonstrates that the deficiencies do not adversely affect or decrease the effectiveness of the protective strategy and physical protection program.

Deficiencies that the licensee determines to adversely affect or decrease the effectiveness of the protective strategy and physical protection program (e.g., a failure of any of the PEP key elements below) must be entered into the site's problem identification and resolution program. Key program elements include:

1. Responding with sufficient numbers of security personnel – the licensee has the required number of response personnel to effectively implement the protective strategy and protect the target sets against the DBT.
2. Responding within appropriate timelines – response personnel have adequate time to reach their response positions in advance of the adversary timelines.
3. Responding to protected positions – response personnel use appropriate protection and cover.
4. Responding with appropriate armament – response personnel are supplied with, or have readily available, the weapons and equipment necessary to execute their responsibilities and are appropriately trained and qualified in the use of the weapons and equipment.

5. Providing target set protection – response plan and response personnel prevent the DBT from completing sabotage of all components of any target set.

To verify that the licensee is meeting this requirement, the inspector(s) should request that the licensee provide tactical response drill or FOF exercise reports that document deficiencies. The inspector(s) should also request to review the documentation pertaining to the licensee's evaluation of the deficiencies to understand fully the licensee's method to disposition identified deficiencies and determine whether or not the deficiencies adversely affect or decrease the effectiveness of the protective strategy and physical protection program. The inspector(s) should also query site personnel on the basis for determining how the licensee disposes deficiencies. The inspector(s) should then further request to see the associated documentation that indicates that the failure(s) were entered into the site's corrective action program and verify that the licensee evaluates, tracks, and resolves the failure(s). The NRC considers the critique process complete when all draft conclusions related to the identified weaknesses have been presented to licensee senior management, and any management questions or comments have been documented.

- g. Verify the licensee has developed, implemented, or is prepared to implement a program to conduct tactical response drills and FOF exercises in accordance with the requirements set forth in 10 CFR Part 73, App. B, Sec. VI. (10 CFR Part 73, App. B, Sec. VI, C.3.(d), (e), (f), and (k))**

Specific Guidance

To inspect this requirement, the inspector(s) should review samples of drill and exercise documentation to verify that the licensee designs and conducts drills and exercises to meet the following requirements:

1. Uses no more than the total number of ARs and ASOs documented in the licensee's security plans.
 2. Minimizes the number and effects of artificialities.
 3. Implements the use of systems or methodologies that simulate the realities of armed engagement through visual and audible means and reflect the capabilities of armed personnel to neutralize a target through the use of firearms.
 4. Ensures that each scenario used provides a credible, realistic challenge to the protective strategy and the capabilities of the security response organization.
- h. Verify the licensee has developed, implemented, or is prepared to implement a process to use a mock adversary force during tactical response drills and FOF exercises that replicates, as closely as possible, the adversary characteristics and capabilities of the design basis threat (DBT) described in 10 CFR 73.1(a)(1), and is capable of exploiting and challenging the site's security program. (10 CFR Part 73 App. B, Sec. VI, C.3.(l)(2))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should first gain an understanding of whom the licensee uses to perform mock adversary duties during tactical response

drills and FOF exercises. Some licensees may use personnel from the licensee's own site to act in the capacity of a mock adversary force; where other licensees may use external personnel from another licensee(s) or local law enforcement tactical response units to mock adversary force duties. The licensee (who is being inspected) is responsible to ensure that the mock adversary force used during tactical response drills and FOF exercises is capable of replicating, as closely as possible, the adversary characteristics and capabilities of the DBT as described in 10 CFR 73.1(a)(1) and RG 5.69, "Guidance for the Application of the Radiological Design-Basis-Threat in the Design, Development, and Implementation of a Physical Security Program that meets 10 CFR 73.55 Requirements." To verify that the licensee employs a mock adversary force that is capable of closely replicating the DBT, the inspector(s) should request that the licensee provide its methodology for ensuring that its mock adversary force replicates, as closely as possible, the characteristics and capabilities of the DBT. Some methodologies that licensees may use include internal or external training programs that are intended to prepare individuals to act as adversary force members in accordance with 10 CFR 73.1(a)(1). Once the licensee's methodology is understood, the inspector(s) should then compare the methodology with the adversary characteristics described in 10 CFR 73.1(a)(1) and RG 5.69 for close replication. Dependent upon personnel availability, the inspector(s) should interview mock adversary force team members to assist in understanding the level of knowledge that the members possess.

- i. **Verify the licensee has developed, implemented, or is prepared to implement a process to challenge and evaluate the protective strategy through the conduct of tactical response tabletop demonstrations. (10 CFR Part 73 App. B, Sec. VI.C.3.(I)(3))**

Specific Guidance

To inspect this requirement, the inspector(s) should review the licensee's PSPs, implementing procedures, and associated training aids and documentation to verify that the licensee conducts tabletop demonstrations in a manner that evaluates and challenges the licensee's protective strategy.

- j. **Verify the licensee has developed, implemented, or is prepared to implement measures to ensure that controllers, used for tactical response drills and FOF exercises are trained and qualified to ensure that each controller has the requisite knowledge and experience to control and evaluate exercises. (10 CFR Part 73 App. B, Sec. VI.C.3.(I)(4))**

Specific Guidance

For the inspection of this requirement, the inspector(s) should review the licensee's security plans, implementing procedures, and training documentation to verify that the licensee's exercise controllers are trained and qualified. Through this review, the inspector(s) should develop an understanding of the licensee's process for which personnel are trained and qualified to perform as controllers. Once the training and qualification process is understood, the inspector(s) should then verify through the review of lesson plans and records that personnel who perform controller duties are trained and qualified in accordance with the licensee's processes and procedures. The licensee must ensure that drill and exercise controllers are trained and qualified to ensure that each controller has the requisite knowledge and experience to control and evaluate exercises.

The inspector(s) should also conduct interviews with personnel who perform controller duties to assist in understanding the requisite knowledge and experience of the individual(s) who is/are responsible to control and evaluate exercises.

- k. **Verify the licensee has developed, implemented, or is prepared to implement measures to ensure that tactical response drills and FOF exercises are conducted safely and in accordance with site safety plans. (10 CFR Part 73 App. B, Sec. VI.C.3.(l)(5))**

Specific Guidance

To inspect this requirement, the inspector(s) should review security plans, implementing procedures, and associated drill and exercise documentation to verify that the licensee has established measures to ensure that drills and exercises are conducted in accordance with site safety plans. In general, the drill and exercise program should include provisions for the following: weapons/ammunition safety, exercise participant safety, site personnel safety, and consideration for radiological safety. Safety measures should be documented in the licensee's implementing procedures.

- l. **Verify the licensee has developed, implemented, or is prepared to implement measures to ensure scenarios used during tactical response drills and FOF exercises are developed, designed, and documented in accordance with 10 CFR Part 73, App. B VI. (10 CFR Part 73, App. B, Sec. VI.C.3.(m))**

Specific Guidance

To inspect this requirement, the inspector(s) should request that the licensee provide its methodology for ensuring licensee's scenarios are developed and designed to meet the following requirements:

Multiple scenarios are developed and documented for use in conducting quarterly tactical response drills and annual FOF exercises.

The scenario must be designed to test and challenge any components or combination of components of the onsite physical protection program and protective strategy.

Each scenario must use a unique target set or target sets, and varying combinations of adversary equipment, strategies, and tactics, to ensure that the combination of all scenarios challenges every component of the onsite physical protection program and protective strategy to include, but not limited to, equipment, implementing, procedures, and personnel.

- m. **Verify the licensee has developed, implemented, or is prepared to implement measures to ensure performance evaluations conducted at an operating reactor do not pose the potential for adverse effects on safety and security. (10 CFR 73.58(b))**

Specific Guidance

For the inspection of this requirement the inspector(s) should ensure that the licensee has developed, implemented, or is prepared to implement procedures that account for both physical and procedural restraining measures required to be in place during

exercises conducted in the licensee PEP. These procedures should demonstrate the licensee's practices for safety/security interface to ensure PEP activities do not impede or impair the safe operation of the site. The inspector should ensure that the licensee has established a briefing structure that supports their PEP that discusses safety/security interface issues adequately.

02.02 Reviews

Events and Logs. Review and evaluate the licensee's physical security event log for the previous 12 months, or since the last inspection, for events associated with the PEP and follow up, if appropriate. In conjunction with IP 71153, "Follow up of Events and Notices of Enforcement Discretion," review any written follow up reports of physical security events associated with the PEP. (10 CFR 73.55(b)(10), 10 CFR 73.1205, and 10 CFR 73.1210)

Security Program Reviews. Verify that the licensee has developed, implemented, or is prepared to implement a process to conduct security program reviews in accordance with 10 CFR 73.55(m) and the licensee's PEP is included in the review as required by regulation. (10 CFR 73. 55(m) and 10 CFR Part 73, App. B, Sec. VI, I))

Identification and Resolution of Problems. Verify that the licensee is identifying issues related to the PEP at an appropriate threshold and entering them in the licensee's problem identification and resolution program. Verify that the licensee has appropriately resolved the issues regarding regulatory requirements for a selected sample of problems associated with the PEP. (10 CFR 73.55(b)(10))

Specific Guidance

For the inspection of this requirement the inspector(s) should determine if a Security Event Report (SER), in accordance with 10 CFR 73.1205 has been submitted to the NRC by the licensee. Closeout of SERs is performed under Section 03.02 of IP 71153; however, assess if additional follow-up under this IP is warranted for the conditions or corrective actions associated with the SER.

The inspector(s) should review and evaluate licensee physical security event log entries documented in accordance with 10 CFR 73.1210, since at least the last inspection, that are associated with the PEP. If discrepancies or deficiencies are identified during this review, the inspector(s) should follow up as necessary.

The inspector(s) should review the documented results of the security program reviews or audits performed by the licensee to ensure the continued effectiveness of its PEP. The inspector(s) should ensure that the reviews have been conducted in accordance with the requirements of 10 CFR 73.55(m). The inspector(s) should also request that the licensee provide a copy of the report that was developed and provided to licensee management for review. The inspector(s) should review the report to identify any findings that were identified via the review or audit to ensure the findings were entered in the licensee's corrective action program.

The inspector(s) should review a sample of entries in the licensee's Problem Identification and Resolution program associated with the equipment performance, testing, and maintenance program. The intent of this review is to verify that the licensee

is identifying deficiencies at the appropriate threshold, tracking deficiencies for trending, and correcting deficiencies commensurate with their security significance. Inspectors can follow up on select samples in accordance with this procedure to ensure corrective actions are commensurate with the significance of the issue. Refer to IP 71152, "Problem Identification and Resolution (PI&R)," section 03.01 for additional guidance.

81000.03-03 RESOURCE ESTIMATE

The resource estimate for the completion of this procedure consists of approximately 10 hours of direct inspection effort onsite. The sample size for this procedure is 14.

81000.03-04 PROCEDURE COMPLETION

Inspection of all 14 inspection requirements will constitute the completion of this IP.

81000.03-05 REFERENCES

IP 71152, "Problem Identification and Resolution (PI&R)"

IP 71153, "Follow up of Events and Notices of Enforcement Discretion"

Regulatory Guide (RG) 5.69, "Guidance for the Application of Radiological Sabotage Design Basis Threat in the Design, Development and Implementation of a Physical Security Program that Meets 10 CFR 73.55 Requirements" (SGI), Revision 1, March 2022

RG 5.75, "Training and Qualification of Security Personnel at Nuclear Power Reactor Facilities," "Revision 1, March 2021

END

Attachments:

Attachment 1: Revision History for IP 81000.03

Revision History for IP 81000.03

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional Non-Public Information)
N/A	ML121010464 09/07/12 CN 12-020	Researched commitments made in the last four years and found none. IP developed to support security construction inspections under IMC 2200.	Training to be covered at the July 2013 Annual NSIR Counterpart Meeting.	N/A
N/A		This Document was revised to meet the 5-year periodic review requirement and minor administrative changes.	N/A	
	ML24221A170 12/10/24 CN 24-041	This document has been revised as a result of a periodic review, as well as the Palisades Restart effort. As a result of the review, editorial changes were made to adhere to IMC 0040, as well as the addition of IMC 2562 to the program applicability. Additionally, a SUNSI review was completed and the staff concluded that this document should be de-controlled. Consistent with the staff's SUNSI determination, this document has been de-controlled and the SUNSI markings have been removed.	N/A	ML24221A169