

NRC INSPECTION MANUAL

IRAB

INSPECTION MANUAL CHAPTER 1245 APPENDIX C17

RESIDENT INSPECTOR TECHNICAL PROFICIENCY
TRAINING AND QUALIFICATION JOURNAL
AND INSTRUCTIONS FOR COMPLETION

Effective Date: 06/18/2025

Table of Contents

INTRODUCTION	1
TRAINING COURSES	1
REQUIREMENTS	1
PERFORMANCE AND QUALIFICATION REQUIREMENTS	1
COMPLETING AND RECORDING PROGRAM REQUIREMENTS	2
SITE READINESS ASSESSMENT	2
RESIDENT INSPECTOR QUALIFICATION PRACTICAL ASSESSMENT BOARD	2
a. Resident Inspector Qualification Practical Assessment Board	2
b. Assessment Board Conduct.	3
c. Assessment Board Recommendations and Documentation.....	3
d. Re-assessment Boards	4
OTHER ADMINISTRATIVE REQUIREMENTS	4
a. Formal Training Requirements and Expectations.....	4
b. OJT Instructors/Mentors.	4
DEVIATIONS	5
Attachment 1: Resident Inspector Performance Standards	Att1-1
1.0 FUNDAMENTAL INSPECTOR PERFORMANCE REQUIREMENTS	Att1-3
2.0 BASIC RESIDENT INSPECTOR PERFORMANCE REQUIREMENTS	Att1-5
3.0 SITE READINESS ASSESSMENT STANDARDS	Att1-9
4.0 APPRENTICE RESIDENT INSPECTOR PERFORMANCE REQUIREMENTS ...	Att1-11
5.0 FINAL QUALIFICATION PRACTICAL ASSESSMENT STANDARDS	Att1-18
Attachment 2: Revision History for IMC 1245 Appendix C17	Att2-1

INTRODUCTION

This Appendix outlines the Resident Inspector Competency Based (RI-CBQ) training program, performance requirements, qualification standards, and instructions for assessment and recording successful completion of each performance requirement.

TRAINING COURSES

With exception of the courses below, no formal training is required to complete this program. However, formal training courses are available and are listed in the Collaborative Learning Environment (CLE) that is managed by the NRC Technical Training Center (TTC) as “resources” in the appropriate critical task area. If a branch chief or trainee’s immediate supervisor decides that additional training is needed to address knowledge gaps, all Inspection Manual Chapter (IMC) 1245 attendance and exam performance expectations for the courses will apply. Before signing up for any course, candidates should verify that they have met any prerequisites. Note: equivalency credit cannot be granted for the G-205 and P-105 courses since these courses provide prerequisite training for post-qualification training that is required per IMC 1245, Appendix D-1, “Maintaining Qualifications.”

- Reactor Type Full Series
- Site Access Training Self-Study Course (H-100S)
- Root Cause/Incident Investigation Workshop (G-205)
- Probabilistic Risk Assessment (PRA) Basics for Regulatory Applications (P-105)

REQUIREMENTS

Staff implementing NRR programs must understand the facilities, equipment, processes, and activities of those programs, as well as the criteria, techniques, and mechanics of implementing the programs. This qualification process is intended to provide inspectors with sufficient practice, experience, and resources to perform program activities that are technically correct and in accordance with NRC regulations, policies, and procedures.

Attachment 1 to this document, “Resident Inspector Performance Standards,” is a complete description of the critical tasks, performance requirements, and related concepts for the Resident Inspector role. These performance standards are also listed in the CLE, which is used to track the progress of trainees through the RI-CBQ program. Instructions for how to use and input information into the CLE for the RI-CBQ program are contained in Human Resources Learning and Development Operating Procedures.

PERFORMANCE AND QUALIFICATION REQUIREMENTS

Individuals permanently assigned to perform in the role of Resident Inspector must have successfully completed the requirements of the RI-CBQ program or the requirements of the applicable program as described in IMC 1245 C-1, “Reactor Operations Inspector Technical Proficiency Training and Qualification Journal.” Each inspector must complete all the required tasks for each phase of the program and the Site Readiness and Final Qualification Practical Assessments as described in the program. Other than what is listed in the training course Section of this IMC Appendix, no specific formal training courses must be completed, but such

courses can be used to acquire the knowledge necessary to complete the tasks outlined in RI-CBQ.

COMPLETING AND RECORDING PROGRAM REQUIREMENTS

Each task listed in Attachment 1 to this appendix contains a list of performance requirements and associated performance activities. The qualifying individual will complete each of the required tasks under the instruction or with the support of an assigned on the job (OJT) instructor/mentor. When the qualifying individual believes they can successfully perform the task independently, they will request an assessment from an OJT instructor/mentor. The instructor/mentor will observe the qualifying individual's performance and provide assessment feedback for each performance requirement. The feedback will be in the form of "met standards" or "not ready yet." For each assessment, the mentor will document in the CLE what was observed and why or why not, the performance met or did not meet the standard. There is no prescribed way to complete each required task. The amount of preparation and practice required to complete each task will be dependent upon the qualifying individual's knowledge and experience.

SITE READINESS ASSESSMENT

After the qualifying individual completes the performance requirements for the Fundamental and Basic Phases of the RI-CBQ program, the qualifying individual's branch chief, or qualified designee, will conduct the Site Readiness Assessment. The Site Readiness Assessment performance requirements and assessment standards are maintained in Attachment 1 of this IMC and the CLE. The assessment consists of individual performance requirements from various critical tasks from the Fundamental and Basic Phases of the RI-CBQ program. The branch chief (or qualified designee) will observe the qualifying individual's performance conducting routine inspector activities and determine whether they are ready to be assigned to a site to perform these tasks independently while completing the requirements of the Apprentice Phase.

RESIDENT INSPECTOR QUALIFICATION PRACTICAL ASSESSMENT BOARD

An inspector must be recommended by a Resident Inspector qualification practical assessment and certified by the Regional Administrator or Division Director to be completely qualified.

a. Resident Inspector Qualification Practical Assessment Board

The Resident Inspector qualification practical assessment board is used to evaluate how well a candidate can integrate and apply inspector competencies to simulated field situations. Upon a candidate's completion of all required performance activities and critical task assessments, a Resident Inspector qualification practical assessment board will confirm that the candidate has the necessary capabilities to independently perform the Resident Inspector assigned duties and responsibilities. The candidate's immediate supervisor will determine when they are ready for the Final Qualification Practical Assessment based on personal observation and input from senior inspectors and mentors who have assessed the candidate's performance throughout the qualification process.

1. Members. A final qualification practical assessment board will consist of at least three members. The board should contain a cross-section of knowledgeable staff that are qualified or were previously qualified as power reactor inspectors. Each board will contain and be chaired by an individual at the branch chief level. The board chairperson cannot be the candidate's immediate supervisor. However, whenever practical, the immediate supervisor of the candidate seeking qualification, or a designee should observe the assessment board. The assessment board does not have to be completed on the same day or by the same group of assessors.

b. Assessment Board Conduct.

1. The assessment process will consist of discussions/interactions on topics/scenarios that are developed from various critical tasks in the Resident Inspector qualification program. Assessment board members will prepare for the board by reviewing the standards and the scenarios/tasks assigned to the candidate.
2. For the presentation/discussion interaction items, the candidate will be provided with scenarios/issues/instructions and necessary resources 30 to 45 days in advance of the planned final assessment board. The candidate will perform actions necessary to resolve and disposition the issue or gather the required data and prepare presentations for each simulation/scenario.
3. Assessment board members will be provided with a copy of the assigned issue/task/scenario 2 weeks prior to the planned assessment to plan and develop questions related to the issue/scenario and assess the candidate's performance related to the established standards.
4. The Final Qualification Practical Assessment Board activities will typically require between 2 and 3 hours to complete for each candidate, but the activities do not have to be completed all at once or in any specified order.

c. Assessment Board Recommendations and Documentation.

1. Assessment board members will each independently assess the candidate's performance against the established standards, and they will document their assessment results and observation comments.
2. Assessment board members will then discuss their observations and reach a collective recommendation for full qualification if all the standards are met, or for further practice as an Apprentice Resident Inspector, with specific areas of needed improvement identified. The candidate's immediate supervisor may be present for this board discussion and provide insights or answer questions as necessary to assist the board in making its decision.
3. Assessment board members will provide their documented assessment results and any related observation comments (i.e. "lookups") to the RI-CBQ Program manager, who will upload these documents and complete the assessment in CLE based on the board's recommendation. These assessment notes will accompany the candidates' training and qualification record in CLE.
4. Board recommendations will also be forwarded by memorandum (documented as an official agency record) to the candidate's Regional Administrator or Office Director for

approval. Upon certification, the qualification memorandum will be placed into the Agencywide Document Access and Management System (ADAMS) and the qualification information entered into the Talent Management System (TMS) by sending a request to TrainingSupport.Resource@nrc.gov. The request to the TMS support group shall include the person's name, qualification achieved, date qualified and the Accession number of the ADAMS entry. The certification document that was placed into ADAMS and recorded in TMS shall serve as "proof of inspector qualification." Qualification memorandum templates may be found on the ROP Digital City (NRC non-public webpage) website. Following achievement of a qualification, the inspector/examiner/assessor should create and periodically update their profile in the Inspector Opportunities Portal.

d. Re-assessment Boards

If a candidate is assessed as "Not Ready Yet" at the Final Qualification Practical Assessment, they will be given the opportunity for more practice in the specific areas identified by the board. Once the candidate, the candidate's immediate supervisor or OJT instructor/mentor, believes the candidate is ready for final assessment, they may be scheduled for re-assessment. Scheduling requirements and assessment board membership will be dependent upon the portion of the final qualification practical that needs to be re-assessed. After the completion of the re-assessment, the candidate's immediate supervisor or a designated OJT instructor/mentor will update the assessment status and place the results into the CLE. For candidates who are determined to be "Not Ready Yet" after their second attempt, contact your office's OCHCO Human Resources representative for further guidance.

OTHER ADMINISTRATIVE REQUIREMENTS

a. Formal Training Requirements and Expectations.

1. With exception of the courses that were previously identified in the training requirements section of this appendix, no formal training is required to complete this program. However, formal training courses are available and listed as "resources" in the CLE in the appropriate critical task area. If a candidate chooses to attend formal training courses, all attendance and exam performance expectations for those courses will apply.
2. This is a self-driven, performance-based program, but a candidate's immediate supervisor or OJT instructor/mentor may recommend, or require, attendance of a formal training course where they believe it is essential to address an observed knowledge gap.
3. Although not a requirement, for further growth and development, qualified inspectors are encouraged to consult the "Resident Inspector Sustained Proficiency Recommended Performance Standards" that are described in Nuclepedia for ideas regarding possible areas for focused attention.

b. OJT Instructors/Mentors.

1. The RI-CBQ Program is designed as a structured OJT development process and highly dependent upon OJT instructors/mentors for both instruction and assessment. Regional management shall ensure that an adequate number of mentors are available to support all the candidates in the Region. This support may include both virtual and in-person

instruction at any location and should include travel with the candidate to reactor sites, to prevent candidates from interfering with routine site operations.

2. OJT instructors/mentors should be highly skilled inspectors with a desire to support the development of others. Mentors may be volunteers or appointed, but in either case should be recommended by management and given adequate time away from their normal inspection duties to provide support to candidates.
3. OJT instructors/mentors are identified by management and added to the CLE by the HRLD CBQ Program Manager. HRLD can provide recommendations to develop mentoring skills for designated instructors/mentors.
4. To ensure consistency in instruction and assessment, a “mentor notes” tab is provided for each critical task in the CLE. These notes provide mentors with guidance, resources, scenarios, or ideas about how to teach certain skills, and notes or guidelines specific to the assessment. This is intended to ensure fairness and equity in the program across all regions and all OJT instructors/mentors.

b. HRLD CBQ Program Manager

1. Answers CBQ program questions, assigns mentors in the CLE, and provides mentors with guidance for performing and documenting performance assessments.

DEVIATIONS

The RI-CBQ was built with maximum flexibility in mind. The requirements for each assessment in each critical task must be completed and documented in the CLE. The phases were sequenced based on expected experience level and skill development capabilities, but do not need to be completed in order. Any critical task from any phase can be completed by a candidate with the assistance of an OJT instructor/mentor, but in general, the phases will normally be completed in order. Permanent site assignments should not be performed until the candidate successfully completes the Site Readiness Assessment. However, if an opportunity arises to complete a critical task in the Apprentice phase while visiting a site during the Basic Phase, and the instructor/mentor believes the candidate is capable, completion of that activity is acceptable.

Because the requirements of this program are competency-based, deviation requests should not normally be required. If the candidate can demonstrate proficiency of a task through the assessment process, it should be documented as a completed assessment. If formal training is selected as a method for knowledge acquisition, any normal course sequencing policy, practice, or guidance shall be followed, or a deviation requested as outlined in IMC 1245.

ATTACHMENT 1: RESIDENT INSPECTOR PERFORMANCE STANDARDS

RESIDENT INSPECTOR PERFORMANCE STANDARDS

The RI-CBQ program was developed based on a job task analysis conducted by two focus groups of high performing Senior Resident and recently qualified Resident Inspectors. Through that analysis, critical performance tasks that are essential for job performance were identified in three development stages. These tasks and related intellectual concepts comprise the competencies demonstrated through the effective performance of successful Resident Inspectors. The focus groups compared the performance standards to the original IMC 1245 inspector job task analyses that are referenced in IMC 1245, Attachment 2, "Inspector Competencies," to ensure the performance standards did not have knowledge/training gaps.

1.0 FUNDAMENTAL INSPECTOR PERFORMANCE REQUIREMENTS

Tasks

- 1.01 Identify the requirements and resources necessary to complete the Fundamental Inspector phase of the Resident Inspector qualification program.

Mandatory Performance Activities

- (a) With the assistance of your supervisor or an assigned instructor/mentor develop a plan to complete all the requirements for the Fundamental Inspector phase of the Resident Inspector Qualification program.
 - (b) With the assistance of your supervisor or an assigned inspector/mentor, coordinate with the Resident Inspector Office at an operating nuclear power plant facility, to schedule a site familiarity visit.
- 1.02 Obtain necessary personal protective equipment required for performing work on site as a Fundamental Inspector Candidate.

Mandatory Performance Activities

- (a) Complete any necessary requisition forms and obtain an NRC hard hat, safety glasses, gloves, safety shoes, and any other region or site-specific recommended personal protective equipment and ensure proper fit prior to your first site visit.
- 1.03 Complete all requirements for unescorted access at a licensed nuclear power plant facility.

Mandatory Performance Activities

- (a) Complete NRC Site Access Training Self-Study Course (H-100S).
 - (b) Notify Regional Office Site Access Coordinator of completion status of Site Access Training.
 - (c) Complete licensee site-specific access training and/or orientation requirements.
 - (d) Prior to site visit, confirm with NRC onsite staff that you have completed any site-specific training requirements.
 - (e) Complete Rad Worker Training requirements and obtain NRC Dosimetry from your Radiation Safety Officer.
- 1.04 Demonstrate the ability to receive an allegation.

Mandatory Performance Activities

- (a) Recognize an allegation when presented by a mentor, supervisor or other NRC Staff personnel for training purposes.
- (b) Determine the urgency or need for an emergency allegation review board based on the specific nature of allegation received. Make the appropriate recommendation to the Office Allegation Coordinator.
- (c) Capture and document accurately and appropriately the details of an allegation.
- (d) Determine when it is appropriate to get a more experienced inspector involved in receiving an allegation and work with a concerned individual.

- 1.05 Demonstrate the ability to respond to emergencies in the Regional Office as a Fundamental Inspector Candidate.

Mandatory Performance Activities

- (a) With a mentor, observe the response to an exercise or real emergency in the Incident Response Center. As an alternative, meet with regional Emergency Response personnel in the Incident Response Center and discuss resources and capabilities for dealing with different types of emergencies.

- 1.06 Demonstrate the ability to interact with the media or members of the public as a Fundamental Inspector Candidate.

Mandatory Performance Activities

- (a) Meet with the Regional Public Affairs Officer (PAO) and discuss general interactions with the media and members of the public.
- (b) Demonstrate the ability to respond appropriately to questions from the media and direct referrals to the PAO.
- (c) Discuss interactions with the media by the PAO or another experienced NRC manager or inspector. Discuss any observations or challenges after the media interaction has concluded.

2.0 BASIC RESIDENT INSPECTOR PERFORMANCE REQUIREMENTS

Tasks

- 2.01 Identify the requirements and resources necessary to complete the Basic Resident Inspector phase of the Resident Inspector qualification program.

Mandatory Performance Activities

- (a) With the assistance of your supervisor or a Regional Qualification Coach, develop a plan to complete all the requirements for the Basic Resident Inspector phase of the Resident Inspector Qualification program.
 - (b) With the assistance of and by direction from your supervisor, coordinate with mentors and the Resident Inspector Office at operating nuclear power plant facilities to schedule site visits as necessary to support completion of qualification activities.
- 2.02 Complete any site-specific access requirements for each nuclear power plant site you will visit during the completion of qualification activities.

Mandatory Performance Activities

- (a) Coordinate with the onsite Resident Inspector Office to complete any site-specific training requirements and forms necessary to obtain a badge and dosimetry at the site.
- 2.03 Demonstrate the ability to quickly become familiar with and safely and independently navigate each site you visit.

Mandatory Performance Activities

- (a) Coordinate with the Resident Inspector Office staff and demonstrate your ability to safely navigate the plant site during all plant conditions.
 - (b) Lead a control room tour with a mentor, identify locations of important indications and communications equipment.
 - (c) Demonstrate an ability to locate and access all onsite Emergency Response locations.
 - (d) Demonstrate compliance with site-specific security procedures.
 - (e) Demonstrate the ability to locate plant status, work control, and corrective action related documents in the licensee's computer system.
- 2.04 Demonstrate the ability to effectively monitor and accurately report plant status for power plant sites to which you visit or are assigned.

Mandatory Performance Activities

- (a) Attend daily plant meetings and demonstrate the ability to identify items of interest that affect plant risk or safety or require regulatory review or follow-up.
- (b) Conduct routine control room tours and demonstrate the ability to identify significant plant status indications through observations and discussion with operators.
- (c) Demonstrate the ability to review operator logs and identify any entries that might warrant follow-up questions.

- (d) Review the Plan of the Day and demonstrate the ability to identify items of interest that may impact plant risk or safety that may require regulatory review or follow-up.
- (e) Review the Daily Risk Plan and demonstrate the ability to identify and validate items on the plan that impact plant risk and that may influence or impact your inspection or observation plan for the day.
- (f) Conduct a daily screening of condition reports and demonstrate the ability to identify items that may impact plant risk profile or plant safety and those that may require inspector follow-up or be indicators of trends of declining performance or a potential safety culture challenge developing.
- (g) Demonstrate the ability to develop appropriate and effective follow-up questions for any plant status items requiring follow-up and identify the most appropriate licensee personnel to pose these questions to.
- (h) Locate and report, as needed, the plant's Unidentified Leak Rate.
- (i) Demonstrate the ability to report daily plant status in branch meetings including items identified for follow-up.
- (j) Within your first few days on site, identify and make the acquaintance of key licensee personnel.
- (k) Review PRA terminology and concepts (e.g., Core Damage Frequency (CDF), Large Early Release Frequency (LERF), functionality, common-cause failure) and identify their associated plant risk profile.

2.05 Demonstrate the ability to conduct baseline inspection procedures and complete inspection samples.

Mandatory Performance Activities

- (a) Accompany a qualified inspector during a routine baseline inspection sample and observe and discuss the important aspects of conducting that sample.
- (b) Using the inspection procedure for guidance, demonstrate the ability to appropriately prepare for an inspection sample by identifying references/resources you will need to review and any licensee staff you plan to interact with during the inspection.
- (c) Under the observation of a qualified inspector/mentor, complete inspection samples for two or three baseline inspection procedures.
- (d) Locate risk information available (e.g. PRIBs, IPE/IPEEE, SAPHIRE, PRA etc.) that could be used to risk-inform a sample selection and discuss with a qualified inspector/mentor/senior risk analyst.
- (e) While conducting inspection activities, demonstrate the ability to observe any irregular equipment or plant status in the associated areas where you are conducting your inspection sample.
- (f) Demonstrate the ability to identify potential deficiencies through observation or inspection activity and discuss these with a qualified inspector/mentor, including any plan follow-up actions needed to determine if they are issues of concern.
- (g) For any issues identified during the conduct of an inspection sample, with the assistance of a mentor, demonstrate the ability to properly document issues that meet the documentation thresholds.

2.06 Demonstrate the ability to document inspection findings.

Mandatory Performance Activities

- (a) For an issue that you have identified (or one provided by your OJT Instructor/mentor):
- Identify the performance deficiency.
 - Utilize the issue screening process and articulate the nature of the deficiency.
 - Identify any cross-cutting aspects associated with the performance deficiency.
 - Prepare the inspection report input.
 - Present and discuss any issues identified and your recommended disposition based on your review and decisions made through the screening process with an OJT Instructor/mentor.

2.07 Demonstrate an appropriate response to emergencies while on site.

Mandatory Performance Activities

- (a) Demonstrate your knowledge of Emergency Response procedures and Emergency Response locations by reporting to the appropriate response location during various simulated or real emergencies.
- (b) Demonstrate the ability to locate and use Emergency Response communications equipment, and to effectively communicate appropriate information during simulated or actual Emergency Response situations.

2.08 Demonstrate the ability to interact professionally and appropriately with licensee personnel throughout the licensee organization.

Mandatory Performance Activities

- (a) Demonstrate the ability to interact professionally and appropriately with licensee managers and staff at all levels during different types of situations. Form and ask good questions and deliver observations and findings professionally with the appropriate level of detail and an emphasis on safety impacts.
- (b) Demonstrate how to deliver details of findings, violations, and observations during an exit meeting, maintaining professionalism and responding appropriately and accurately to licensee questions and/or feedback.
- (c) Demonstrate the ability to recognize and correctly respond to indications of wrongdoing by licensee employees.

2.09 Demonstrate the ability to interact appropriately and professionally with the media or members of the public.

Mandatory Performance Activities

- (a) Demonstrate the ability to respond appropriately to actual or simulated questions from the media and direct referrals to the Public Affairs Officer or more qualified senior inspector.

2.10 Demonstrate the ability to receive and process allegations.

Mandatory Performance Activities

- (a) Demonstrate the ability to recognize an allegation when presented. Determine if the allegation presented represents an immediate safety concern and discuss appropriate actions with a supervisor or mentor.
- (b) Given an allegation, capture and accurately document all pertinent details and provide the information you collected in the proper format to the Headquarters or Regional Allegations Coordinator (or a mentor for a simulation).
- (c) Demonstrate the ability to explain the allegations process for follow-up to the concerned individual and describe how their identity will be protected.

3.0 SITE READINESS ASSESSMENT STANDARDS

Site Readiness Assessment Standards will be utilized by the candidate's immediate supervisor or designee to assess the candidate's readiness to be assigned to a role on site, for some period. If the candidate is assessed as "ready," they will perform the basic duties of a Resident Inspector while continuing to develop skills as an Apprentice Resident Inspector. Assessors may discuss any topics or ask any questions related to the job during this assessment, but their readiness determination should be based on observation of the following tasks during actual or simulated scenarios

- 3.01 The candidate should be able to Lead a Plant Tour and demonstrate the ability to:
- demonstrate confidence in executing the Radiological Controlled Area (RCA) entry process
 - identify Systems, Structures, and Components that are important-to-safety, and discuss their safety functions
 - identify important indications, controls, and communications equipment in the Control Room
 - locate and describe site Emergency Response locations and associated communications equipment
 - maintain compliance and discuss application of site-specific security protocols
 - exhibit safety awareness including compliance with posted signage and Personal Protective Equipment (PPE) requirements
- 3.02 Demonstrate the ability to review licensee documentation, attend plant meetings, and identify and discuss items of interest that affect plant risk or safety and require regulatory review or follow-up.
- Identify the person or group in the licensee organization whom you would contact to obtain further information about each issue.
- 3.03 Prepare for and conduct an inspection sample, discuss your preparation process, items of interest, and any abnormal conditions or plant activities that impact your inspection.
- Demonstrate appropriate use of the UFSAR and other design-basis documents in sample selection, preparation, and issue follow-up.
 - Demonstrate the ability to risk-inform an inspection sample selection.
 - Recognize and discuss any potential operability issues with the appropriate licensee personnel.
- 3.04 Demonstrate the ability to identify potential concerns through observation or inspection activity and plan any follow-up actions/questions you intend to take/ask commensurate with its safety or risk-significance.
- 3.05 Demonstrate the ability to effectively interact with Concerned Individuals (CIs) and accurately capture pertinent details related to allegations
- Demonstrate the appropriate level of persistence in gathering the CI's contact information.
 - Likewise, demonstrate concern for and attention to protecting the identity of the CI.

- 3.06 Demonstrate the ability to interact professionally and appropriately with licensee managers and staff at all levels during different types of situations. Form and ask good questions and share observations professionally with the appropriate level of detail and an emphasis on safety impacts.
- 3.07 Demonstrate the ability to recognize and correctly respond to indications of wrongdoing by licensee employees.
- 3.08 Demonstrate the ability to recognize and correctly respond to indications or reports of NRC employee misconduct.

4.0 APPRENTICE RESIDENT INSPECTOR PERFORMANCE REQUIREMENTS

Tasks

- 4.01 Complete the following courses to demonstrate an appropriate knowledge level of plant systems, risk awareness, and root cause techniques that will have to be applied to complete the remaining tasks.
- (a) Complete a full reactor plant series course of instruction as defined by the TTC.
 - (b) Complete the Root Cause/Incident Investigation Workshop (G-205).
 - (c) Complete the PRA Basics for Regulatory Applications course (P-105).
- 4.02 Demonstrate the ability to identify issues of concern as they arise and develop appropriate plans for follow-up action. (Note attributes can be historical examples.)

Mandatory Performance Activities

- (a) Demonstrate the ability to recognize challenges to system or equipment operability status and PRA functionality. Demonstrate the ability to recognize potential sources of common-cause failure. Develop follow-up questions for the licensee and determine who the best person is to discuss the issue with.
- (b) Demonstrate the ability to associate the appropriate inspection procedure with issues of concern as you identify them.
- (c) Demonstrate the ability to respond appropriately to issues of concern as they are identified.
- (d) For issues of concern that you identify, demonstrate the ability to identify the regulatory nexus that justifies follow-up and prioritize issues based on risk-significance.
- (e) For issues of concern that you identify, demonstrate the ability to identify the licensing basis that binds the licensee to take appropriate actions.
- (f) Demonstrate the ability to review 10 CFR 50.72 and 10 CFR 50.73 Notifications and develop appropriate follow-up actions.
- (g) Demonstrate the ability to review 10 CFR Part 21 Notifications for applicability and develop a follow-up plan if appropriate.
- (h) Demonstrate the ability to support the implementation of the Notice of Enforcement Discretion (NOED) process.
- (i) Demonstrate the ability to conduct trend analysis and to recognize and follow up on trends of licensee degraded performance.
- (j) Demonstrate the ability to review industry or NRC generated operating experience and determine applicability to your assigned site and develop appropriate follow-up actions.
- (k) Demonstrate the ability to conduct reviews of equipment and components to identify potential susceptibility to aging issues.
- (l) Demonstrate the ability to respond appropriately to personnel safety issues identified at the plant.
- (m) Demonstrate the ability to assess and respond appropriately to issues related to personnel security processes or protocols.
- (n) Demonstrate the ability to recognize and respond appropriately to discrepancies with licensee minimum manning requirements.

- (o) Demonstrate the ability to recognize issues or events that may require entry into the MD 8.3/IMC 0309 process.
- (p) Demonstrate the ability to follow up on issues that you have raised with the licensee by reviewing condition reports to ensure your concerns were captured accurately and are being addressed accordingly.

4.03 Demonstrate the ability to monitor and report on plant status on a routine basis.

Mandatory Performance Activities

- (a) Attend plant morning meetings and demonstrate the ability to identify items of interest such as issues of concern, planned equipment outages that impact plant risk, or issues that may challenge operability of safety-related equipment, and to develop a follow-up plan to address any concerns.
- (b) Demonstrate the ability to conduct a control room walkdown and identify routine plant operating parameters and any ongoing operations or abnormal conditions.
- (c) Demonstrate the ability to perform a review of the Plan of the Day and identify any issues that may warrant inspector follow up.
- (d) Review the daily Risk Plan and demonstrate the ability to identify issues that may warrant inspector follow-up or impact the daily inspection plan.
- (e) Demonstrate the ability to review condition reports and identify issues that may warrant inspector follow up. Devise a plan of action to address any concerns identified.
- (f) Demonstrate the ability to identify and analyze trends during your review of the condition report system. If a negative trend is identified, develop a follow-up plan to address any concerns you may have.
- (g) Demonstrate the ability to monitor and report on unidentified leak rate as required by policy or procedure at your assigned site or region.
- (h) Demonstrate the ability to present the plant status report for branch meetings. Include all pertinent data in your brief and answer any questions appropriately. Prioritize and follow up on issues as requested by your branch chief.
- (i) Demonstrate the ability to conduct a review of daily operator logs and identify issues that warrant inspector follow up. Devise a plan and conduct appropriate follow-up actions.
- (j) Observe personnel security protocols and demonstrate the ability to identify any issues of concern or irregular activities and devise a follow-up plan to address those concerns.

4.04 Demonstrate the ability to utilize site risk data to inform inspection sample selection and evaluate licensee technical specification determinations and maintenance decisions.

Mandatory Performance Activities

- (a) Complete the PRA Basics for Regulatory Applications (P-105) course.
- (b) Demonstrate the appropriate use of risk analysis tools (e.g., PRIB or licensee PRA information) to independently assess the risk-significance of equipment malfunctions or planned maintenance activities. Compare your results with the licensee's perceived risk during activities that impact plant safety equipment.

- (c) Demonstrate the ability to validate that the licensee's configuration risk management tool (e.g., Paragon, Phoenix) accurately reflects availability of plant equipment and that risk mitigating actions, if applicable, can reasonably be implemented given plant operating conditions.

4.05 Demonstrate the ability to contribute to the inspection planning process.

Mandatory Performance Activities

- (a) Demonstrate the ability to identify and suggest appropriate inspection samples based on identified issues of concern from plant status activities.
- (b) Utilize results of prior inspection activities, work or activity planning resources, operating experience, recognition of trends, and prior-year assessment results to identify and recommend appropriate inspection samples.
- (c) Demonstrate the ability to identify SMART inspection samples.

4.06 Demonstrate the ability to adequately prepare for inspections.

Mandatory Performance Activities

- (a) Demonstrate the ability to locate and access inspection procedures.
- (b) Review the References section of the inspection procedure and determine the resources you will need to access and why each may be essential to successful completion of the inspection.
- (c) Identify relevant licensee documentation, personnel, or logistic support that will be required and coordinate with licensee to obtain or arrange for these resources.
- (d) Identify any specialized access, training, safety/security briefings that will be required prior to or during the inspection you are planning for, and coordinate with the licensee to complete these activities.
- (e) Conduct a search of the licensee condition report and NRC Operating Experience systems for any previous inspection-related issues relevant to the inspection you are planning.
- (f) Identify the regulatory requirements and license conditions that you'll be comparing your inspection results against as well as the expected conditions or operations of the equipment, location, or activity you'll be inspecting.

4.07 Demonstrate the ability to complete inspection samples in accordance with inspection procedures and all relevant policies and guidance.

Mandatory Performance Activities

- (a) Obtain and review the licensee procedure governing any activities or operations you will be observing. Identify critical steps and specific items of interest you'll be looking for during the inspection process.
- (b) Attend the pre-job briefing, if applicable, and identify any critical items steps or items of interest that you'll be looking for during the inspection process.
- (c) While conducting your inspection activities observe any other plant activities or conditions occurring in the area and make observations of issues outside of the inspection procedure you are conducting.

- 4.08 Demonstrate the ability to accurately disposition and document any deficiencies identified during the inspection process.

Mandatory Performance Activities

- (a) Demonstrate the ability to utilize the issue screening process and articulate the nature of deficiencies clearly by doing the following:
 - Construct a defensible performance deficiency. Include a discussion of the minimum information needed to support your performance deficiency.
 - Minor/More than minor. Use the screening process a couple of times with different outcomes (minor/finding/violation) within each cornerstone.
 - Traditional Enforcement. Practice the process by working through an example.
 - Practice screening. Complete five to eight issues via walkthrough/verbal discussion, and two to four issues by conducting practice write-ups. Receive feedback. Practice examples should include different cornerstones and various outcomes.
 - Assign a cross-cutting aspect, as appropriate.
- (b) Review any licensee corrective action documents generated as a result of questions asked or issues raised by inspectors to ensure the details have been captured accurately.
- (c) Present and discuss any issues identified and your recommended disposition based on your review and decisions made through the screening process with an OJT Instructor/mentor.
- (d) With the assistance of your instructor/mentor, coordinate with Senior Risk Analysts (SRAs) for any ongoing issues identified during the ROP at any reactor site that may result in a “greater than Green” finding.
 - Work through multiple appendices of the Significance Determination Process (SDP) as well as how to engage with SRAs.
 - Practice activities from multiple appendices or activities that do not exist in an SDP.
- (e) Demonstrate the ability to recognize the indications of a potential safety culture challenge and when to reach out to a safety culture assessor for assistance.

- 4.09 Demonstrate the ability to respond to emergencies and fulfill the role of the Resident Inspector.

Mandatory Performance Activities

- (a) Demonstrate the capability to respond properly to different types of events including where to respond, what plant information related communications you are responsible for, and what communication systems/data links should be utilized.
- (b) Demonstrate the ability to validate the licensee’s assessment of the emergency and any emergency action level declarations or protective measures they implement.

- (c) Following an actual or simulated plant event, demonstrate the ability to perform inspection procedures related to Emergency Preparedness and Emergency Response.
 - (d) During an actual or simulated event, demonstrate the ability to access and utilize NRC site-specific prepared Incident Response procedures/information/resources (e.g., Emergency Response binder) to find essential emergency contact information and any emergency checklists or site-specific guidance.
- 4.10 Demonstrate the ability to interact professionally and appropriately with licensee managers and staff.

Mandatory Performance Activities

- (a) Demonstrate the ability to form and ask good questions of licensee managers and staff to gather inspection-related information.
 - (b) Demonstrate the ability to prepare for and conduct an effective interview of licensee staff to gather needed information for inspection or issue follow-up.
 - (c) Demonstrate the ability to present information at a formal inspection exit meeting.
 - (d) Demonstrate proper etiquette and professionalism during a routine meeting with licensee management. Provide inspector insights as appropriate and effectively communicate any issues of concern. Include in your discussions any observations of trends that may indicate a potential decline in safety culture.
 - (e) Demonstrate how to deescalate a contentious conversation with a licensee.
 - (f) Demonstrate the ability to identify licensee documents and references you need to support your inspection effort and to effectively obtain those resources from licensee staff.
- 4.11 Demonstrate the ability to interact appropriately and professionally with the media or members of the public as a Resident Inspector.

Mandatory Performance Activities

- (a) Demonstrate the ability to present information at a public meeting. Share assessment results at the annual site public meeting if appropriate.
 - (b) Demonstrate the ability to properly interact with members of the media as necessary.
 - (c) Demonstrate an understanding of the NRC's policy on the use of social media by identifying the types of information that should or should not be shared on your personal accounts online.
 - (d) Demonstrate the ability to explain the job of a Resident Inspector and the role of the NRC in a social interaction or in a public setting.
 - (e) Demonstrate the ability to utilize de-escalation techniques to get under control or withdraw from a contentious conversation.
- 4.12 Demonstrate the ability to receive and process allegations.

Mandatory Performance Activities

- (a) Demonstrate the ability to recognize an allegation based on the official definition and determine if prompt action is required related to immediate safety concerns.

- (b) Demonstrate the ability to capture all the essential information from the concerned individual, fully and accurately document the allegation, and submit to the Allegation Coordinator.
- (c) Demonstrate the ability to interact professionally and positively with an alleged either in person or through some other means of digital communication.
- (d) Demonstrate the ability to recognize and follow up on any allegation that could indicate a chilling effect or other safety culture issue.

4.13 Demonstrate the ability to prepare for and host Very Important Person (VIP) site visitors.

Mandatory Performance Activities

- (a) Prepare for a VIP site visit by developing a tour route, identifying site-specific talking points, and coordinating logistics and communications with the Regional Office and licensee points of contact.
- (b) Demonstrate the ability to lead a VIP on a site tour and point out items or areas of interest to communicate the Resident Staff's predetermined message or answer specific questions the visitor may have raised.

4.14 Demonstrate the ability to contribute to and participate in meetings related to the licensee assessment process.

Mandatory Performance Activities

- (a) Demonstrate a fundamental understanding of the licensee assessment process. Discuss the process and site-specific trends with the Senior Resident Inspector.
- (b) Demonstrate an understanding of the position and reason for that position of the licensee on the action matrix. Demonstrate an understanding of the reasoning for the current licensee assessment result.
- (c) Demonstrate the ability to link the impact of performance indicators to the overall assessment results.
- (d) Review an End of Cycle package with the Senior Resident Inspector/Mentor or another individual who was tasked with developing the package.

4.15 Demonstrate the ability to support outage planning and related inspection activities

Mandatory (when practical) Performance Activities

Demonstrate the ability to contribute to outage oversight and inspection planning by completing as many of the following tasks as practical. Work with the Senior Resident Inspector and your Branch Chief to determine which activities you must complete to satisfy the requirement based on opportunity and practicality.

- (a) Observe and assess Refueling Operations. Discuss any observations or concerns with an OJT Instructor/mentor/mentor and relate any issues to the licensee.
 - Observe communications and controls in place during fuel moves
 - Review the licensee's process for verifying fuel locations and tracking

- (b) Demonstrate the ability to lead/conduct Drywell/Containment Tours/Inspections. Discuss any observations with an OJT Instructor/mentor and relate any issues to the licensee to be addressed.
 - Focus on other areas not accessible at power.
- (c) Observe portions of the start up following an outage. Verify licensee is safely controlling reactivity and maintaining operations within safety margins. Discuss any observations or concerns with an OJT Instructor/mentor.
- (d) Demonstrate the ability to observe and assess Heavy Lifts. Discuss the guidance and safety implications, and past operating experience related to crane operations with an OJT Instructor/mentor.
- (e) Observe operations leading up to and during Reduced Inventory situations. Discuss increased risk and safety considerations while in this mode of operation with an OJT Instructor/mentor.
- (f) Observe operations while placing Decay Heat Removal Systems in service.
- (g) While performing a containment walkdown, complete an inspection of containment sumps/water suppression paths.
- (h) Observe parts of Inservice Inspection activities to become familiar with the processes and equipment used. Discuss any observations or irregularities with an OJT instructor/mentor.
- (i) Observe Spent Fuel Operations, taking note how spent fuel locations are controlled, documented, and tracked. Discuss any special environmental monitoring requirements with an OJT Instructor/mentor.
- (j) Review the Shutdown Safety Plan and identify any conditions or operations that significantly impact risk.
 - Consider the typical sources of shutdown risk (e.g., reduced inventory, equipment availability, breached barriers).
 - Review and discuss how beyond-design-basis equipment is or may be used to mitigate risk during certain activities.
 - Review and discuss how maintenance activities or schedule changes may impact the defense-in-depth associated with key safety functions.
- (k) Prior to startup, complete a Containment Closeout walkdown. Discuss any observations with an OJT Instructor/mentor. Share any issues with the licensee and ensure adequate follow-up actions are completed prior to final closeout.
- (l) Observe work activities in progress to ensure proper Foreign Material Exclusion (FME) controls are being utilized. Discuss any observations with an OJT instructor/mentor and share any issues or concerns with the licensee.
- (m) Review any Major Work Activities/Plant Modifications to ensure all work is being completed according to approved procedures and in accordance with change/work documentation. Verify any modification requiring NRC approval has been reviewed and approved prior to the work being executed.
- (n) Identify opportunities to observe and evaluate any Infrequently Performed Tasks/Evolutions that are planned, as well as accessing any areas that are typically inaccessible. For each activity observed, discuss any insights or concerns with an OJT Instructor/mentor and share any issues with the licensee.

5.0 FINAL QUALIFICATION PRACTICAL ASSESSMENT STANDARDS

The Final Qualification Practical Assessment incorporates a practical evaluation of many of the Inspector Competencies that the inspector training and qualification was based upon while allowing board members the freedom to ask questions on additional areas as they deem appropriate. Assessment panel members may ask any questions related to the Final Qualification Practical Assessment scenarios, but their final qualification determination should be based on their assessment of the candidate's performance against the following standards. The Emergency Response portion may be performed as part of the simulator portion from any one of the power reactor technology series courses with a simulator portion. The various sections of the Final Qualification Practical Assessment do not need to be completed on the same day or by the same group of assessors.

Part I: ROP Issue Follow-up and Disposition

- 5.01 Given an issue of concern, demonstrate the ability to utilize the issue screening process and articulate the nature of deficiencies clearly.
- 5.02 Demonstrate the ability to explain or discuss potential differences in your screening results given minor alterations to the issue of concern scenario by the assessors.
- 5.03 Demonstrate the ability to discuss or explain the basic enforcement process steps for a potentially-escalated issue to the licensee.

Part II: Emergency Response (Simulation/Performance)

- 5.04 Demonstrate the capability to respond appropriately to a plant event (simulation) and communicate effectively with decision makers. Note: if the Headquarters Operations Officer (HOO) is not available to participate in the Emergency Response portion of the practical assessment, a Regional Operations Office (ROO) or other similarly trained individual may be used.
 - Respond to the Control Room and assess the situation and interact appropriately with licensee staff, following the immediate actions in the attachments of IP 71153
 - Determine who to contact and provide clear and relevant information, with the appropriate level and correct technical detail to ensure the receivers have the information necessary to make decisions
 - Demonstrate the ability to contact the Headquarters Operations Officer (HOO) and convey event information essential for management event response mode decision making (e.g., should include items such as a description of the event, high-level plant status, EAL declared (if any), and high-level licensee actions)
 - Monitor and communicate updates to the regional/HQ responders as necessary using the desired communication links.
- 5.05 Throughout, and following the (simulated) event, monitor licensee communications and assess conditions and licensee performance
 - Validate the licensee's assessment and classification of the emergency, operator performance, and compliance with requirements for notifications
 - Conduct the short-term immediate response follow-up actions outlined in the attachments of IP 71153

- 5.06 At the conclusion of the simulation, provide a verbal summary of the event that includes current conditions, initiator(s) of the event, licensee actions taken, NRC response/actions, licensee planned actions, your assessment of licensee response and planned actions, and proposed NRC follow-up actions.
- 5.07 Participate in a post-scenario discussion and be able to describe processes and requirements for escalated events such as:
- What are the likely criteria for escalating the event Emergency Action Level?
 - When/who would the licensee need to notify?
 - When would the licensee need to make a Protective Action Recommendation (PAR), and what is its purpose?
 - What counterpart/communication links would be used?

Part III: Allegations

- 5.08 Demonstrate effective allegations receipt by performing the following actions:
- Recognize an allegation when presented.
 - Accurately capture and understand the nature and urgency of the concern.
 - Record the alleged's name and contact information.
 - Describe how, when, and to whom you would provide allegation-related information.
- 5.09 Demonstrate the ability to clearly explain the allegation process to the concerned individual including follow-up contacts and timing expectations.
- 5.10 Demonstrate the ability to effectively explain NRC's policy and goals related to identity protection in the allegation process.

Part IV: Ethics/Conduct/Wrongdoing

- 5.11 Demonstrate the ability to recognize and correctly respond to indications or reports of NRC employee misconduct.
- 5.12 Demonstrate the ability to recognize and correctly respond to indications of wrongdoing by licensee employees.
- 5.13. Given (a) scenario(s) representing (an) ethical dilemma(s), discuss appropriate responses and reporting requirements for the incident(s) in accordance with NRC Ethics Policies.

Attachment 2: Revision History for IMC 1245 Appendix C17

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)
	ML25022A283 06/18/25 CN 25-016	Initial issuance.	None	ML25066A211