
INSPECTION MANUAL CHAPTER 1245 ATTACHMENT 3

GENERAL OVERVIEW OF THE C-17 RESIDENT INSPECTOR TRAINING AND QUALIFICATION PROGRAM

Effective Date: 06/18/2025

The U.S. Nuclear Regulatory Commission (NRC) has designed the Inspection Manual Chapter (IMC) 1245, Appendix C17, resident inspector training and qualification program to ensure the development of competency in the following general areas:

- Legal basis and regulatory processes,
- Technical expertise,
- Regulatory practices, and
- Personal and interpersonal effectiveness.

This program consists of three phases: Fundamental, Basic, and Apprentice. Like other power reactor inspector programs outlined in IMC 1245, this program is based upon the Knowledge, Skills and Attitudes that were used to develop the competencies identified in Attachment 2 of IMC 1245. Program curriculum is hosted in the Collaborative Learning Environment (CLE) electronic portal and is maintained by the Associate Director for Training and Development in the Office of Chief Human Capital Officer. The CLE portal interfaces with the Talent Management System (TMS) where the training status of NRC employees is stored.

1.0 THE FUNDAMENTAL LEVEL PROGRAM

The resident inspector training and qualification process begins with the Fundamental Level Program. This program is designed to allow individuals to begin their training the first day they start work at the NRC. The Fundamental Level Program is designed to provide trainees with skill sets and competencies that when completed, will enable a trainee to the access a reactor plant site, tour it in accordance with licensee and NRC requirements, interact with licensee personnel in a professional manner, respond to a plant event, recognize an allegation, understand allegation reporting requirements and successfully interface with the media and public citizens. The Fundamental program is structured with self-paced and self-directed individual study and on-the-job activities. Accordingly, the number of formal, time-intensive classroom training requirements at this level has been minimized. These features, the self-directed individual study and on-the-job activities, allow for maximum flexibility in completing the Fundamental Level Training and Certification program. Individuals should be able to complete the Fundamental Level Training program in a few weeks.

2.0 THE BASIC LEVEL PROGRAM

The Basic Level Program builds on the skill sets that were learned in the Fundamental Program.

In this phase, individuals will work on activities that will introduce them to areas such as the regulatory framework, the fundamentals of plant design and operation, information technology resources, the approach to emergency response, communication systems, the NRC reactor oversight process and inspection program framework). Interpersonal and technical skill development will also be a focus of the Basic Level program. If necessary, trainees will have the opportunity to develop those areas by completing coursework sponsored by the NRC Technical Training Center. Completion of the Basic Level program is a pre-requisite to be assigned as a resident inspector.

The structure of the Basic Level Program provides the context for meaningful learning during onsite work, establishes a foundation for in-depth training at the Apprentice Level, and serves as the basis for granting individuals some independence in performing limited job-related activities while they are in the qualification process. The final qualification activity at the Basic Level Program is a site readiness assessment conducted by the trainee's branch chief. The site readiness assessment evaluates the ability of an individual to integrate and apply the knowledge, skills, and attitudes acquired during the Fundamental and Basic Level Programs to field situations. Completion of the Basic Inspector Certification Program allows an inspector to perform limited-scope inspection activities, as assigned, under an appropriate degree of detailed supervision. This may mean that inspectors will be allowed to independently perform some procedures or a small part of several procedures.

Individuals who complete the Basic Level Program will have demonstrated the ability to apply their reactor systems knowledge to independently conduct several inspection activities and communicate those results to licensee personnel. The scope of inspection activities will be determined by the trainee's supervisor and mentor. Examples of activities that should be conducted independently at the Basic Level Program of qualification include: responding to plant events, conducting control room walkdowns, entering and exiting radiologically controlled areas, selecting risk-informed inspection activities for inspection, and entering security areas, such as the central and secondary alarm stations.

At the Basic Level of qualification, trainees will not be expected to have a complete and detailed understanding of the NRC inspection program, but with supervision, trainees should be able to receive and process allegations and potential NRC findings/violations through the NRC allegation program and reactor oversight program. Although Basic Level qualified inspectors are not expected to independently conduct all resident inspector inspection activities, they should have demonstrated an ability to assess a situation, apply knowledge in a "real-time" or ongoing event, and with supervision, conduct follow up to an event.

The Basic Level Training and Certification Program should take several months to complete. As a competency-based program, it emphasizes practicing specific activities until the individual can meet the evaluation criteria. The time needed to achieve that goal will vary based on each individual's previous experience and prior training.

3.0 THE APPRENTICE LEVEL PROGRAM

Successful completion of the Basic Level Program is a prerequisite to beginning the Apprentice Level phase of the C17 resident inspector qualification program. The Apprentice Level addresses two aspects of inspector performance, General Proficiency and Technical Proficiency. General Proficiency focuses on developing the inspection, teamwork, and interpersonal skills needed by an inspector to function either independently or as part of a team to implement the inspection and oversight program.

Technical Proficiency focuses on developing the appropriate depth of knowledge that an inspector will need to independently respond to events, conduct inspections, process issues through the reactor oversight process and effectively and efficiently interact with the licensee and public

Full inspector qualification requires completion of a final qualification practical assessment, conducted by a panel of individuals who are qualified or were previously qualified as power reactor inspectors and is the culminating evaluation activity in the resident inspector training and qualification process. The assessment evaluates the ability of an individual to integrate and apply the knowledge, skills, and abilities they have learned to field situations that may involve allegations, issues regarding inspector conduct, and reactor oversight process implementation. Similar to the Board Documentation requirements outlined in IMC 1245, Regional Administrators or Office Directors will certify completion of the resident inspector training and qualification program through preparation of a qualification memorandum that will be placed into the Agencywide Document Access and Management System (ADAMS) and the Talent Management System (TMS). An inspector who is certified as fully qualified can be assigned to independently perform the full scope of inspection with routine oversight and supervision.

4.0 REFRESHER, SPECIALIZED AND ADVANCED TRAINING AND QUALIFICATION ACTIVITIES

To help guide the continual development of resident inspectors, recommended post-qualification, resident inspector sustained proficiency performance standards have been placed in Nuclepedia at the following site: "Resident Inspector Competency-Based Qualification." Additionally, to maintain their qualification status, resident inspectors must complete the continuing and refresher training requirements outlined in IMC 1245 Appendix D1. The resident inspector qualification program does not require individuals to successfully complete specialized and advanced level training programs. However, the needs of the agency as well as an individual's desire for professional growth may result in some fully qualified inspectors completing advanced training. For inspectors who are interested in expanding their knowledge of the NRC power reactor inspection program, some advanced training programs will consist only of individual courses addressing limited-scope topics. Other knowledge areas will involve completing prescribed qualification programs that are designed to provide in-depth knowledge and advanced skills. Advanced-level training qualification programs have been developed in the fire protection, cybersecurity, Inservice inspection and electrical areas. The specific program descriptions are outlined in Appendices C7, C14, D2, D3, and D4 of IMC 1245.

Exhibit 1 outlines the overall sequence of the resident inspector training and qualification program and a sample of the competencies that an individual should be able to demonstrate at each level.

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Exhibit 1: Inspector Training and Qualification Program Sequence

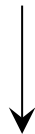
Fundamental Level Competencies

- Understand the Resident Inspector Qualification Process and Requirements
- Complete Site Access Requirements
- Demonstrate Safe Access of Site Areas and Compliance with Signage
- Develop a Questioning Attitude
- Recognize an Allegation and Reporting Responsibility
- Effectively Interface with the Media and Public
- Respond to an Emergency Situation



Basic Inspector Competencies

- Apply Reactor Systems Knowledge
- Independently Enter and Navigate the Site Radiologically Controlled Area
- Effectively Communicate with Licensees
- Independent Control Room Walkdown and Document Access
- Learn in “Real-Time”
- Risk-inform Inspection Samples/Issues
- Conduct Inspections Under Supervision
- Enter a Contaminated Area Independently
- Process Allegations Under Supervision
- Process Violations Under Supervision
- Respond to Plant Events
- Plant Security Fundamentals
- Complete a Site Readiness Assessment



Apprentice Level Competencies

- Ask Questions and Recognize Indications
- Conduct Inspection Procedures with Minimal Supervision
- Process Violations with Minimal Supervision
- Basics of Licensee Assessment
- Be Familiar with SAPPHIRE and how to Risk Inform Inspections
- Respond to Events Independently
- Advanced Knowledge of Transient and Emergency Operations
- Effectively Communicate with the Public
- Successfully Complete the Qualification Practical
- Be Able to Conduct a Site Tour for Visitors
- Support Outage Planning and Inspection Activities.

Attachment 1: Revision History for IMC 1245 Attachment 3

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	ML25022A282 06/18/25 CN 25-016	Initial issuance of document.	None	ML25056A156