

# **NRC INSPECTION MANUAL**

NMSS

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## **MANUAL CHAPTER 1246**

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**FORMAL QUALIFICATION PROGRAMS IN THE  
NUCLEAR MATERIAL SAFETY AND SAFEGUARDS PROGRAM AREA**



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## 1246-01 PURPOSE

01.01 To define training and qualification requirements for U.S. Nuclear Regulatory Commission (NRC) staff performing activities in the Nuclear Material Safety and Safeguards (NMSS) program area.

01.02 To establish the requirements for completing refresher and continuing training as a means for updating and maintaining qualification.

## 1246-02 OBJECTIVES

02.01 To ensure that NMSS program area staff has the necessary knowledge and skill to successfully implement the NMSS program.

02.02 To define a standardized methodology for determining that NMSS staff has met the established qualification requirements.

## 1246-03 DEFINITIONS

03.01 Attitude. A manner of performing tasks that demonstrates an understanding of and an appreciation for the NRC's organizational values of integrity, excellence, service, respect, cooperation, commitment, and openness.

03.02 Category. An area or class of activity for which a license or certificate of compliance may be issued (such as medical, academic, irradiators, well logging, cask system design, etc.).

03.03 Continuing Training. Activities designed to build on what an individual learned in initial training by:

- a. Providing in-depth knowledge in areas that are covered in initial training.
- b. Addressing changes to the programs and processes that affect how NRC staff conducts job related activities.
- c. Providing lessons learned from recent industry and agency activities.

03.04 Equivalency Examination. An examination administered through the training organization staff or its contractors, in lieu of specific course attendance.

03.05 Interim Qualification. Qualification of an NMSS staff member to independently conduct activities in specified areas before completion of all qualification journal requirements.

03.06 Knowledge. The facts, concepts, ideas, and relationships that support successful on-the-job performance. Normally referenced together with skills and abilities and abbreviated as KSAs.

03.07 On-the-job Training (OJT). A training method that uses structured hands-on activities to develop the required job-related knowledge and skills.

03.08 Oral Qualification Board. A board, consisting of management and staff, established to assess the knowledge and skills of an individual to independently perform the prescribed NRC inspection or licensing program.

03.09 Qualification Journal. The document that establishes and documents the minimum training requirements for formal classroom instruction, on-the-job training, local training sessions, and self-study.

03.10 Refresher Training. Training designed to update and maintain qualification.

03.11 Specialized and Advanced Training. Technical training which increases the depth of an individual's knowledge in a specific area. Additional required training beyond that identified as core training. The additional training will be determined by the individual's supervisor and will depend on the individual's previous work experience and planned inspection or licensing activities in specific areas.

#### 1246-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Associate Director for Training and Development (ADTD), Office of Human Resources (HR). Administers and implements the formal training programs for NMSS as identified in this inspection manual chapter (IMC). Assesses training course effectiveness and identifies areas where the course content needs to be revised.

04.02 Director, Office of Nuclear Materials Safety and Safeguards (or designee). Ensures that NMSS staff achieves and maintains qualifications in accordance with the guidelines in this IMC. Establishes the training qualification requirements for staff who perform activities for which NMSS is responsible. Develops procedures for implementing this IMC for NMSS staff. Certifies the headquarters staff who qualify under this IMC.

04.03 Regional Administrator (or designee). Ensures that regional staff achieves and maintains qualifications in accordance with the guidelines provided in this manual chapter. Certifies the regional staff who qualify under this IMC.

04.04 Directors, NMSS and Regional Divisions. Approve the use of and accepts the justification for using an alternate method for meeting qualification program requirements. Assist the ADTD in developing, monitoring and reviewing training courses for the NMSS qualification program. Identify and document in an individual's qualification journal, specialized training activities necessary to supplement core training requirements.

04.05 Chiefs, NMSS Program Branches. Develops and maintains, in conjunction with the ADTD of HR, and headquarters staff, the qualification journals listed in the Appendices of this IMC. Evaluates proposed changes to NMSS programs for impacts on training. Periodically reviews and assess the effectiveness of staff in implementing NMSS programs to identify needed refresher and continuing training topics. Assesses the training and qualification program effectiveness and identifies areas where the program needs to be revised.

04.06 Immediate Supervisor of Qualifying Individuals. May assign fully qualified individuals to work with trainees during the qualification process. Ensures that qualifying individuals have successfully completed requirements. Certifies that the individual is qualified. Assesses the ability of the qualifying individual and provides appropriate levels of detailed supervision based on the individual's level of proficiency. Ensures an individual's readiness to independently perform job responsibilities. Recommends each qualifying individual assigned to them as prepared for the qualification board.

## 1246-05 REQUIREMENTS

Staff implementing the NMSS program must understand the facilities, equipment, processes, and activities of this program, as well as the criteria, techniques, and mechanics of implementing the program. The qualification process is intended to provide staff with sufficient information to perform program activities that are technically correct and in accordance with NRC regulations, policies and procedures.

05.01 Training and Qualification Requirements. Staff assigned to perform inspections, technical reviews, or project management in the NMSS program area must successfully complete the applicable requirements of the applicable qualification program, and the appropriate qualification journal. The appropriate qualification journal described in the Appendices to this IMC specifies the minimum inspector, technical reviewer, or project manager qualification requirements. Qualification journals may be customized to add other requirements as appropriate. Exemption from specific training topics may be granted in accordance with Section 1246-08 of this chapter.

05.02 Final Qualification Activity.

- a. Qualification Board. Upon completion of the training identified in the qualification journal, the individual's understanding of the material will be evaluated by an oral qualification board (Board). The Board assesses the qualifications of an individual to conduct his/her duties under the NMSS program. The Board will recommend to the Office Director or their designee whether or not the individual should be certified.

- b. Board Members. A qualification board will consist of at least three members. A cross-section of qualified personnel should be included and can range from a peer-level inspector, technical reviewer, or project manager to a Division Director. Management of at least the branch chief level should be included on each Board. The peer-level member of the Board should be qualified in the discipline for which the candidate is seeking qualification. The board chairman shall be at the branch chief level as a minimum but cannot be the individual's immediate supervisor.
  
- c. Board Conduct.
  - 1. The board members should develop topics for questioning and the board chairman should assign topics and questions to each of the board members to ensure that the questioning will address all of the KSAs to be verified by the board. Board members are encouraged to have a planning meeting to discuss how various questions or scenarios will ensure the various KSAs will be covered.
  
  - 2. The board members may develop a list of questions, or question bank, that include all areas of the qualification journal. Specific questions can be selected from those used in previous qualification boards or new questions can be written. These questions should allow and encourage the individual to answer in such a way as to demonstrate a depth of knowledge and understanding of a given area, rather than to simply answer "yes" or "no". Questions should focus on those situations that require the employee to demonstrate a knowledge of NRC policy and philosophy, as they relate to the licensee and the implementation of the NMSS program.
  
  - 3. Questions of a technical nature should not be excluded; however, they should pertain to the technical area in which qualification is sought, and should not represent a major area of Board questioning.
  
  - 4. The board should typically require about 2 hours completing its assessment but the time may vary based on the individual board and the candidate.
    - (a) Board Recommendations. The board will document the results of their assessment in writing to the Office Director or designee each time a board examines an individual.
      - (1) If the board's assessment is favorable, the recommendation will be to grant qualification. Any areas where additional review was required (look-up items) must be completed by the individual and verified by an assigned member of the board before forwarding the recommendation to the Office Director, or designee.
      - (2) If the board has identified areas of weakness requiring formal remediation, the board will identify the areas for improvement in writing and recommend that the individual appear before a board for reexamination when the remediation activities are complete. The board and the individual's supervisor will agree on a schedule for reexamination.

- (3) If the board has identified performance deficiencies that could not be successfully addressed with a remediation effort, the board will document the full scope of the deficiencies and recommend that the individual not be remediated or reexamined.
- (4) The employee will receive a copy of the board's findings and recommendation.
- (b) Reexamination Board. A reexamination board must include at least one individual from the original board. The board questioning during reexamination will focus on the areas of identified weakness. The board may explore an area where weakness is identified during the conduct of the reexamination.
- (c) Board Documentation. The board's recommendations are forwarded to the Office Director or designee for certification. Upon certification, the qualification will be documented in the employee's official personnel file and will identify the effective date of the certification.

05.03 Changing Disciplines. An individual who changes disciplines must meet or complete the training and qualification requirements for the new discipline. In such cases, previous equivalent training requirements in common between the two disciplines need not be repeated, and credit for the previous similar training will be indicated in the current qualification journal. An oral qualification board will be utilized unless waived in accordance with the provision of Section 1246-08.

05.04 Special Circumstances. Special circumstances (e.g., budget reductions, delays in establishing replacement contracts, or unavailability of critical instructors) may result in the temporary unavailability of courses required for formal qualification. In this case, the ADTD, HR, will communicate with the cognizant NMSS program area division directors explaining the situation. This does not remove the need for the qualifying employee to attend the required course. It is expected that employee schedules will be adjusted as necessary to allow and require the employee to attend the required training when it is made available.

Requests for course substitutions or other equivalent training activity shall be submitted by the qualifying individual's immediate supervisor to the cognizant Division Director for approval.

05.05 Interim Qualification. Staff who have not completed all requirements for final certification may obtain interim qualification to independently conduct activities in specified areas for which prescribed training has been completed. To establish an interim certification, the individual's immediate supervisor will evaluate the individual's qualifications and identify the categories for which interim qualification is appropriate. A request will then be generated through the individual's management for interim qualification in the identified areas. The request should be approved by the Office Director, or their designee. Approval of interim qualification will be documented and a record kept in the individual's training file.



Staff undergoing qualification may perform activities under the direction of a qualified staff member in their specified area. In situations where qualification is delayed as a result of the unavailability of required formal training courses, or for other compelling reasons, the Office Director (or designee) may provide interim qualification for those categories in which the staff member is considered qualified. Interim qualification includes license signature authority for select license categories in accordance with a written delegation.

#### 05.06 Formal Training Requirements and Expectations.

- a. Trainees are expected to attend all parts of a formal training program in order to receive credit for the course.
- b. Written examinations are administered for designated courses to evaluate the employee's understanding of the material. The passing grade for most examinations is 70 or 80 percent
- c. In courses where a formal examination is not given, satisfactory course completion is determined by attendance and completion of class activities.
- d. Individuals who fail examinations may be given the opportunity to review the material through self-study and may then be reexamined. If deemed desirable, individuals who fail a course may also repeat the course in accordance with established ADTD policy.
- e. In all cases, completion of formal training courses will be documented by HR. The individual is responsible for making sure that the course completion record is noted on the signature cards in the qualification journals.

#### 1246-06 POST QUALIFICATION TRAINING

06.01 Refresher Training. All qualified staff is required to complete refresher training to maintain the overall level of performance as specified in the discipline specific qualification journals.

06.02 Continuing Training. Qualified staff is expected to build on what they have learned during initial training as well as to keep up-to-date on changes to the NMSS program area.

Temporary Instructions (TIs) or Policy and Guidance Directives (P&GDs) that focus on a specific area may necessitate staff receiving special training before performing activities. The NMSS division having lead responsibility for preparing the TI or P&GD will identify these special training requirements, and communicate the training needs to the ADTD as necessary. The schedule for preparation of any special training should allow enough advance time for the lead NMSS division, in coordination with the ADTD, to prepare the required training course and implement it, before inspection or licensing is performed using the TI or P&GD.

#### 1246-07 PROGRAM REVISIONS

This manual chapter is periodically revised to reflect the training needs of staff as determined by changes to current policy or changes to procedures, or both. When new revisions are issued, personnel who qualified under previous requirements shall remain qualified, but must complete any new formal classroom training requirements in their area within three years from the date of the revision. Personnel in the process of qualifying when new revisions are issued, may complete their qualification under their original requirements, but must complete any new formal classroom training requirements in their area within three years from the date of the revision. Waivers to specific new formal training requirements and extensions to the three year time period can be granted using the procedures outlined in Section 1246-08.

#### 1246-08 EXCEPTIONS

- a. Staff who, through education and prior experience of at least 5 years in the specific field, possess sufficient knowledge to meet minimum requirements of a qualification journal, may be grandfathered. Requests for such exemptions should be made from the individual's immediate supervisor to the Office Director and should consider the candidate's ability to conduct inspections or licensing activities without the benefit of the additional knowledge and regulatory perspective which would be gained by attending the specific courses. This exemption should be documented in the employee's official personnel file.
- b. Staff qualified for one program area covered in this IMC, such as those for fuel cycle facilities; need not duplicate qualification requirements that are common for another discipline. The individual, after completing the additional training required, including all of the necessary specialized and technical training for the new discipline, may receive qualification in writing from the Office Director or their designee without the need for a Board, provided that the common requirements (such as requalification courses) have been kept up to date. This exemption should be documented in the employee's official personnel file.
- c. Staff who, through prior experience and education, possess sufficient knowledge to meet minimum requirements, may validate specific courses through satisfactory completion of equivalency examinations. Requests for equivalency examinations should be made from the individual's supervisor to the ADTD and should consider the candidate's ability to conduct inspections or licensing activities without the benefit of the additional knowledge and regulatory perspective which would be gained by attending the course. Use of these examinations is generally expected to be a rare occurrence. This exemption should be documented in the employee's official personnel file.
- d. The Office Director or their designee has the authority to waive any requirement or extend the time period for any requirement listed for a staff member in this manual

chapter. Justification for the waiver or extension will be documented, and entered into the individual's training file.

END

Appendices:

Appendix A, Training Activities for Staff in the Nuclear Material Safety and Safeguards Program Area

Division of Spent Fuel Storage and Transportation Training Requirements and Qualification Journals

- B1, Training Requirements and Qualification Journal for Spent Fuel Storage and Transportation Technical Reviewer and Project Manager
- B2, Training Requirements and Qualification Journal for Spent Fuel Storage and Transportation Inspector
- B3, (Reserved) Training Requirements and Qualification Journal for Independent Spent Fuel Storage Installation Inspector

Division of Fuel Cycle Safety and Safeguards Training Requirements and Qualification Journals

- C1, Training Requirements and Qualification Journal for Fuel Cycle Technical Reviewer
- C2, Training Requirements and Qualification Journal for Fuel Cycle Project Manager
- C3, Training Requirements and Qualification Journal for Material Control and Accounting License Reviewer
- C4, Training Requirements and Qualification Journal for Fuel Cycle Safeguards Physical Security Inspector

Division of High-Level Waste Repository Training Requirements and Qualification Journals

- D1, Training Requirements and Qualification Journal for High-Level Waste Repository License Technical Reviewer
- D2, Training Requirements and Qualification Journal for High-Level Waste Repository Inspector

Federal and State Materials and Environmental Management Program Training Requirements and Qualification Journals

- E1, Training Requirements and Qualification Journal for Materials License Reviewer
- E2, Training Requirements and Qualification Journal for Health Physics Inspector
- E3, Training Requirements and Qualification Journal for Division of Waste Management Inspector and License Reviewer
- E4, Training Requirements and Qualification Journal for Decommissioning Inspector
- E5, Training Requirements and Qualification Journal for Division of Waste Management Decommissioning Project Manager/Technical Reviewer
- E6, Training Requirements and Qualification Journal for Materials Exempt Distribution License Reviewer
- E7, Training Requirements and Qualification Journal for Uranium Recovery Inspector
- E8, Training Requirements and Qualification Journal for Uranium Recovery Project Manager/Technical Reviewer
- E9, Training Requirements and Qualification Journal for Byproduct Material Sealed Source and Device Technical Reviewer

Attachment:

Revision History of IMC 1246

Attachment 1  
Revision History for IMC 1246

Commitment Tracking Number	Document Accession Number and Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML112350733 10/26/11 CN 11-022	Major re-write to match format of IMC 0040. Appendix A revised. Appendix A, Sections 1-17 consolidated into renumbered Appendices B1, B2, C1, C2, C3, D1, D2 and E1-9, and then were deleted. Appendix A3, A5, B3, B5 deleted because they are incorporated into IMC 1247. Revision history page added.	None	N/A	ML112350740