

# **NRC INSPECTION MANUAL**

FSME

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## **MANUAL CHAPTER 1248**

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**QUALIFICATION PROGRAMS FOR FEDERAL AND STATE MATERIALS AND  
ENVIRONMENTAL MANAGEMENT PROGRAMS**

## Contents

1248-01	PURPOSE .....	1
1248-02	OBJECTIVES .....	1
1248-03	DEFINITIONS .....	1
03.01	Inspector, License Reviewer, Project Manager, or Technical Reviewer Qualification.....	1
03.02	Candidate.. .....	1
03.03	Category.....	1
03.04	Discipline.....	1
03.05	Specialized Training Courses.....	1
03.06	Individual Study Activity (ISA).....	1
03.07	On-the-Job Training (OJT).....	2
03.08	Refresher Training.....	2
03.09	Qualification Journal.....	2
03.10	Qualification Board.....	2
03.11	Qualified Staff.....	2
1248-04	RESPONSIBILITIES AND AUTHORITIES.....	2
04.01	Chief Learning Officer (CLO) for Human Resources Training and Development, Office of Human Resources (or Designee).....	2
04.02	Director, Office of Federal and State Materials and Environmental Management Programs (or Designee).....	2
04.03	Regional Administrator (or Designee).....	2
04.04	Directors, FSME and Regional Divisions (or Designee) .....	2
04.05	Immediate Supervisor .....	2
1248-05	BASIC REQUIREMENTS .....	3
1248-06	TRAINING ACTIVITIES .....	4
1248-07	QUALIFICATION JOURNAL COMPLETION.....	4
1248-08	QUALIFICATION BOARD.....	5
1248-09	INTERIM QUALIFICATIONS .....	7
1248-10	PROGRAM REVISIONS.....	7
1248-11	EXCEPTIONS.....	8
1248-12	REFRESHER TRAINING.....	9
Attachment 1: Revision History for IMC 1248.....		Att 1-1

## 1248-01 PURPOSE

01.01 To define training and qualification requirements for staff under the Federal and State Materials and Environmental Management Programs (FSME) program areas.

01.02 To establish the requirements for maintaining qualification.

## 1248-02 OBJECTIVES

02.01 To ensure that staff under the FSME program areas meet minimum knowledge and qualification standards.

02.02 To provide standardized methodology for determining that staff under the FSME program area have met the minimum knowledge and qualification requirements.

## 1248-03 DEFINITIONS

03.01 Inspector, License Reviewer, Project Manager, or Technical Reviewer Qualification. The certification by the office director, regional administrator, or designee, the basis of which is a recommendation by the qualification board and/or division management. Inspector, license reviewer, project manager, and technical reviewer are general titles indicating that an individual has completed one of the "Qualification Journals" in the appendices to this Manual Chapter. As determined by division management, the qualification may have a more specific title, such as Materials License Reviewer, Decommissioning Inspector, Uranium Recovery Project Manager or Exempt Distribution License Reviewer. Completing a qualification allows staff members to be assigned the full scope of FSME program area activities in their specific discipline. The assigned tasks are performed independently with routine oversight and supervision.

03.02 Candidate. A staff member who is working to complete one or more of the qualification journals in this Manual Chapter.

03.03 Category. An area or class of activity for which a license may be issued, such as uranium recovery, reactors, materials, and decommissioning.

03.04 Discipline. A specific qualification being sought by a candidate, such as Materials License Reviewer, Decommissioning Inspector and Uranium Recovery Inspector.

03.05 Specialized Training Courses. Additional training courses beyond those required. The candidate's immediate supervisor determines additional training requirements depending on the candidate's previous work experience and planned work activities.

03.06 Individual Study Activity (ISA). A training method candidates use to perform a self-study of certain topics in a specific discipline.

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

03.08 Refresher Training. Additional training required after qualification that allows a staff member to maintain a “qualified” status.

03.09 Qualification Journal. The document used by a candidate to record completion of the minimum training requirements for qualification in a discipline. The qualification journals are found in the appendices to this Manual Chapter.

03.10 Qualification Board. A board established to assess the qualifications of a candidate to conduct the prescribed FSME program area activities.

03.11 Qualified Staff. A staff member who has successfully completed a qualification journal from this Manual Chapter (or the predecessor Manual Chapter 1246) and who has been certified by the regional administrator, office director, or designee.

#### 1248-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Chief Learning Officer (CLO) for Human Resources Training and Development, Office of Human Resources (or Designee). Administers and implements the training programs for the FSME program areas. Provides the Human Resources Training and Development (HRTD) training courses described in the qualification journals found in the appendices to this Manual Chapter.

04.02 Director, Office of Federal and State Materials and Environmental Management Programs (or Designee). Establishes the training requirements needed for staff under the FSME program areas to perform independent FSME program area activities. Ensures that appropriate headquarters candidates achieve qualification and qualified staff members maintain qualification in accordance with the guidelines provided in this Manual Chapter. Develops and implements qualification procedures for staff under the FSME program areas. Certifies that appropriate FSME staff is qualified under this Manual Chapter.

04.03 Regional Administrator (or Designee). Ensures that appropriate regional candidates achieve qualification and qualified staff members maintain qualification in accordance with the guidelines provided in this Manual Chapter. Develops and implements qualification procedures for regional staff as needed. Certifies that appropriate regional staff is qualified under this Manual Chapter.

04.04 Division Directors, FSME and Regional Divisions (or Designee). Assist the appropriate HRTD staff in developing, monitoring, and reviewing classroom training for the FSME qualification program. Identify and document in a candidate’s qualification journal specialized training courses necessary to supplement required training.

04.05 Immediate Supervisor. Ensure that candidates under their supervision complete required training and OJT. Determine if additional training or OJT is needed to adequately qualify the candidate. Ensures the candidate is prepared for evaluation by a qualification board. Assembles Qualification Board and arranges a date to hold the Qualification Board.

## 1248-05 BASIC REQUIREMENTS

Staff under the FSME program areas must understand the facilities, equipment, processes, and activities of the programs and/or projects they inspect, license, or manage, as well as the criteria, techniques, and mechanics of the specific discipline for which they are responsible.

The qualification process provides candidates in all disciplines with sufficient information on appropriate technologies to allow candidates to carry out their responsibilities in accordance with the U.S. Nuclear Regulatory Commission (NRC) regulations, policies, and procedures.

Candidates assigned to positions that require specific discipline qualifications must successfully complete the appropriate qualification journal(s) found in the appendices to this Manual Chapter. In addition to the requirements of this Manual Chapter, other training may be necessary to supplement or enhance the development of the candidate, as determined by the candidate's immediate supervisor.

The qualification journal(s) in the appendices to this Manual Chapter specify the minimum qualification requirements for the specific disciplines in the FSME program areas. The immediate supervisor and/or division management may customize specific qualification journals to add other requirements, as appropriate. Before customizing a specific qualification journal, the candidate's immediate supervisor must consider whether the change is needed for the candidate to perform her or his assigned function. Any customization must be documented to include the reason for the change. Division management will resolve any disagreement resulting from the customization of a qualification journal.

Upon completion of the training identified in the qualification journal, the qualification board evaluates the candidate's understanding of the material. All qualification boards will be convened using the guidance in Section 1248-08.

In situations in which qualification is delayed as a result of the unavailability of required classroom training, or for other compelling reasons, the regional administrator, office director, or designee may provide the candidate written interim qualification under the provisions of Section 1248-09 for those categories in which the candidate is considered qualified. A candidate that changes disciplines must meet or complete the requirements for the new discipline. In such cases, the candidate need not repeat previous equivalent training requirements in common between the two disciplines. The new qualification journals shall indicate credit for similar training taken previously.

Special circumstances (e.g., budget reductions, delays in establishing replacement contracts, unavailability of critical instructors) may result in the temporary unavailability of courses required for qualification. In this case, the appropriate HRTD staff will communicate with the cognizant FSME or regional division managers explaining the situation. This does not remove the candidate's requirement to attend the course(s). The candidate's schedule will be adjusted, as appropriate, to allow and require the candidate to attend the required training when available.

NRC Temporary Instructions (TIs) or Policies and Procedures (P&Ps) that focus on a specific discipline may require special training before personnel perform specific job functions. The

FSME program division responsible for preparing the TIs or P&Ps shall identify these special training requirements and communicate the training needs to the appropriate HRTD staff, as necessary. The schedule for special training should allow enough time for the FSME division to prepare the required training course and implement it in coordination with HRTD before inspection or licensing is performed using the TIs or P&Ps.

Exemption from specific requirements may be granted in accordance with Section 1248-11 of this Manual Chapter.

#### 1248-06 TRAINING ACTIVITIES

Candidates assigned to the FSME program areas must successfully complete the requirements they have been assigned in the qualification journal.

- a. Written examinations for designated courses evaluate the candidate's understanding of the material.
- b. Not all courses have examinations. In these cases, satisfactory course completion requires attendance and completion of class activities. For incomplete attendance, satisfactory course completion requires determination on a case-by-case basis in accordance with established HRTD policy.
- c. Candidates or qualified staff taking training who fail examinations may be given the opportunity to review the material through self-study and may then be reexamined. If deemed desirable, candidates or qualified staff who do not complete the course, or who fail the course's examination, may repeat the course in accordance with established HRTD policy. The staff member's immediate supervisor and HRTD staff will determine whether the staff member can review the material through self-study and then retake the exam, if there is one associated with the course, or if the staff member must repeat the entire course.
- d. HRTD staff will document the completion of classroom training in iLearn.

#### 1248-07 QUALIFICATION JOURNAL COMPLETION

The qualification journals contain a detailed series of activities and study areas. The candidate will complete the activities in the qualification journals within a specific period, usually in the first 2 years after the assignment. If candidates need more time to complete their qualification journal, division management may grant an extension. The justification and approval for the extension must be documented in the candidate's training record.

Immediate supervisors may designate one or more qualified staff members to sign and certify the signature (qualification) cards for the training activities completed by the candidate. If no qualified staff members are available, senior staff members with expertise in a particular area can be utilized. Only a manager can certify completion of a qualification journal.

## 1248-08 QUALIFICATION BOARD

A candidate must be recommended by a qualification board and certified by a regional administrator, office director, or designee to be qualified. Alternatively, in accordance with Section 1248-11, this recommendation can be made by division management to the regional administrator, office director, or designee. This section describes the use of the qualification board.

The qualification board evaluates how well a candidate can integrate and apply the specific qualification competencies to real-life scenarios. Upon completion of all requirements identified in the candidate's qualification journals, a qualification board will be used to determine if the candidate has the necessary competencies to independently conduct the prescribed FSME program area responsibilities in the candidate's specific discipline. A description of the competencies assessed by the qualification board is contained in the appendices to this Manual Chapter. It is the responsibility of the candidate and the candidate's immediate supervisor that the candidate be ready for the board. The schedule for the board must be agreed to by the candidate, the candidate's immediate supervisor, and the board members.

1. Board Members. A qualification board consists of at least three (3) members and not more than five (5) members. The board should contain a cross-section of knowledgeable staff ranging from a peer with qualification in the discipline being sought by the candidate to a division director. Each board shall contain a member who is at least at the level of the candidate's immediate supervisor. The board chairperson shall be at the level of the candidate's immediate supervisor, as a minimum, but should not be the candidate's immediate supervisor. Any disagreement with the membership of the qualification board will be resolved by division management.
2. Board Conduct.
  - (a) The board chairperson assigns topics for questioning to each of the board members to ensure that the questioning will address the training requirements in each of the appendices that require verification by the board. Prior to the qualification board, the board members should coordinate questions or scenarios to ensure the competencies are covered.
  - (b) Specific questions can be selected from those used during previous qualification boards or new questions can be written. Management has the flexibility to create and maintain a collection of qualification board questions. Each question must relate to at least one of the competencies to be verified by the board. Questions should be "open-ended" to allow and encourage the candidate to provide answers that demonstrate competency with NRC policy and philosophy, as they relate to the licensee, and to implementation of the FSME program areas.

- (c) Technical questions should be limited in number, pertain to the discipline in which qualification is being sought, and should not be the primary focus of the board's assessment. Technically based scenarios and examples can be used to determine how well candidates can translate their technical knowledge into appropriate inspector actions; however, questioning merely to determine if a candidate can recall specific technical facts must be minimized.
  - (d) The board typically requires about 2 hours to complete its assessment. The time may vary based on the individual board and the candidate.
3. Board Recommendations. Each time the board examines a candidate, the board documents its assessment of the candidate in writing.
- (a) If the board's assessment of the candidate is favorable, then the board will recommend granting the qualification.
  - (b) If the board identifies minor areas of weakness that can be remediated by additional review, then the candidate will have a subsequent discussion with the board chairperson or assigned member of the board, who will then recommend qualification. If the additional reviews (also called "look ups") are not completed to the satisfaction of the board chairperson or assigned member of the board, the board will decide what additional work, if any, is required of the candidate before recommending qualification.
  - (c) If the board has identified areas of weakness requiring more extensive remediation, then the board will identify the areas for improvement in writing and recommend that the candidate appear before another board for reexamination when the remediation activities are completed. The candidate, the board, and the candidate's immediate supervisor will agree on a schedule for reexamination.
  - (d) If the board has identified performance deficiencies that could not be successfully addressed with a remediation effort, then the board will document the full scope of the deficiencies and recommend that the candidate not be qualified.
4. Reexamination Board. A reexamination board must include at least one member from the original board. The board's questioning during reexamination will focus on the area(s) of identified weakness. The board may explore any area in which weakness is identified during the conduct of the reexamination.
5. Board Documentation. The board will send its recommendation by memorandum to division management with the candidate, the candidate's immediate supervisor, and division training coordinator on distribution. Division management will approve or disapprove of the board's recommendation.

6. If division management has been delegated the authority by the office director or regional administrator to certify qualification, division management will inform the candidate, the candidate's immediate supervisor, and division training coordinator whether the candidate is qualified. If division management has not been delegated the authority by the office director or regional administrator to certify qualification, division management will forward the board's recommendation and division management's endorsement to the office director or regional administrator for review. If the candidate is determined to be qualified, a qualification certificate will be signed by the regional administrator, the office director, or their designee. The certificate will identify the effective date of the certification. This date determines when refresher training is due for each qualified staff member.

#### 1248-09 INTERIM QUALIFICATIONS

A candidate who has not completed all of the requirements for final certification in his or her qualification program may obtain interim qualification to independently perform his or her specific work activities in the discipline for which prescribed training has been completed. The candidate's immediate supervisor, in consultation with the qualified or senior staff assigned to work with the candidate, if used, will recommend whether to grant the candidate an interim qualification after evaluating the candidate's body of work. The candidate's immediate supervisor and qualified or senior staff assigned to work with the candidate, if used, will identify the categories for which interim qualification is appropriate. The candidate's immediate supervisor will generate a request for interim qualification in the identified areas. The request shall be approved by the regional administrator, office director, or their designee. Approval of interim qualification will be documented and a record kept in the candidate's training file. Additional interim qualifications can be obtained before full qualification and certification as skills improve and increase.

#### 1248-10 PROGRAM REVISIONS

This chapter and qualification journals are periodically revised to reflect the training needs of candidates and staff already qualified as determined by changes to FSME program area procedures. When new revisions are issued, personnel who qualified under previous requirements, including IMC-1246, shall remain qualified, but must complete any new required classroom training requirements in their discipline within 3 years from the date of the revision.

Candidates in the process of qualifying when new revisions are issued will transition to and complete their qualification under the new program. Candidates will be given credit in the new program for activities completed under the old program. Waivers to specific new training requirements and extensions to the 3-year period can be granted using the procedures outlined in Section 1248-11.

## 1248-11 EXCEPTIONS

11.01 Candidates possessing sufficient knowledge to meet minimum requirements, through education and prior experience, may be waived from any and all requirements, including the qualification board. Requests for such exceptions must be made from the candidate's immediate supervisor by memorandum to division management. Such requests should consider the candidate's ability to perform work activities without the benefit of the additional knowledge and regulatory perspective gained by completing the training requirements of the qualification journals.

Division management will approve, disapprove, or approve and disapprove in part the immediate supervisor's exception request and will inform the candidate, the candidate's immediate supervisor, and division training coordinator. If the exception approval will result in the candidate becoming eligible for certification, and the office director or regional administrator has delegated authority for certification to division management, division management will inform the candidate, the candidate's immediate supervisor, and division training coordinator whether the candidate is qualified. If the office director or regional administrator has not delegated division management the authority to certify qualification, division management will forward the board's recommendation and division management's endorsement to the office director or regional administrator for review. If the candidate is determined to be qualified, a qualification certificate should be signed by the regional administrator, the office director, or the designee. The certificate will identify the effective date of the certification.

11.02 Staff qualified for one discipline covered in this Manual Chapter need not duplicate qualification requirements that are common for another discipline. Justification for accepting previous experience and training to meet program requirements must be documented in the candidate's training record. After completing the additional training required for the new discipline, the candidate may receive qualification without the need of a qualification board; however, the regional administrator, office director, or their designee has the right to require the candidate to have a qualification board if he or she believes the discipline currently qualified for is too different from the discipline qualification being requested. Requests for such an additional qualification must be made from the candidate's immediate supervisor by memorandum to division management.

Division management will approve or disapprove the immediate supervisor's recommendation and, if division management has been delegated the authority by the office director or regional administrator to certify qualification, division management will inform the candidate, the candidate's immediate supervisor and division training coordinator whether the candidate is qualified. If division management has not been delegated the authority by the office director or

regional administrator to certify qualification, division management will forward the immediate supervisor's recommendation and division management's endorsement to the office director or regional administrator for review. If the candidate is certified, the division training coordinator will create and issue a qualification certificate to be signed by the regional administrator, the office director, or the designee. The certificate will identify the effective date of the certification. This date determines when refresher training is due for each qualified staff member.

## 1248-12 REFRESHER TRAINING

Qualified personnel are expected to maintain their qualification by completing refresher training in the established requalification cycle. The specific refresher training requirements may be found in the appendices to this Manual Chapter. In accordance with Section 1248-11 of this Manual Chapter, the requirement for receiving refresher training can be waived under special circumstances by division management when it is concluded that the qualified individual does not require refresher training.

Refresher training may consist of either health and safety or security topics. Examples of training that may be considered include: Health Physics Topics (H-401), NRC technical training courses, external training courses, directed self-study courses related to health and safety or security, or other training approved by the qualified staff member's supervisor. Before taking refresher training, the qualified staff member should receive approval from his or her immediate supervisor to confirm that the training will be credited as refresher training. In making this decision, the immediate supervisor should take into consideration the objectives of the training and the qualified staff member's specific training needs. If the supervisor is unsure if a specific training course is appropriate, he or she should consider consulting with HRTD staff for their analysis of the training.

END

### Attachments:

Attachment 1: Revision History

### Appendices:

- Appendix A, Materials Health Physics License Reviewer Qualification Journal
- Appendix B, Materials Health Physics Inspector Qualification Journal
- Appendix C, Training Requirements and Qualification Journal for Materials Exempt Distribution License Reviewers
- Appendix D, Training Requirements and Qualification Journal for Byproduct Material Sealed Source and Device Reviewers
- Appendix E, Training Requirements and Qualification Journal for Division of Waste Management Inspectors and License Reviewers
- Appendix F, Training Requirements and Qualification Journal for Decommissioning Inspectors
- Appendix G, Training Requirements and Qualification Journal for Decommissioning Project Managers/Technical Reviewers
- Appendix H, Training Requirements and Qualification Journal for Uranium Recovery Inspectors
- Appendix I, Training Requirements and Qualification Journal Uranium Project Managers/Technical Reviewers

Attachment 1

Revision History for IMC 1248

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment and Feedback Resolution Accession Number
N/A	ML12240A129 04/19/13 CN 13-011	This is the initial issuance of IMC 1248, which is being issued to remove FMSE training requirements and qualification journals from the IMC 1246 NMSS series.	n/a	ML12240A129