

NRC INSPECTION MANUAL

NMSS

INSPECTION MANUAL CHAPTER 1248, APPENDIX I

TRAINING REQUIREMENTS AND QUALIFICATION JOURNAL
FOR URANIUM RECOVERY
PROJECT MANAGERS/TECHNICAL REVIEWERS

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Introduction

The U.S. Nuclear Regulatory Commission (NRC) Uranium Recovery Project Manager and Technical Reviewer (PM/TR) qualification program requires completion of a variety of activities designed to help you, the PM/TR candidate, learn information or practice skills important to independently performing this important function. When you have completed the entire qualification process, you will have demonstrated each of the competencies that describe a successful PM/TR. The role of a PM/TR is to determine if licensees are performing activities involving licensed radioactive material safely and securely and in accordance with NRC regulations, guidance, and license conditions. The PM/TR role is also to manage licensing and regulatory reviews by working with the review team to set schedules, track progress, and work to meet the metrics set in the review schedule. The PM/TR's role is not to establish policy in the areas of health and safety or security. PM/TRs should refer policy questions to their management and to the program office.

A competent PM/TR should:

- a. Understand the legal basis and the processes used for achieving the NRC's regulatory objectives.
- b. Acquire a fundamental understanding of the NRC's organizational structure, mission, goals, and objectives.
- c. Understand the basis for the authority of the agency.
- d. Understand the processes established to achieve the regulatory objectives.
- e. Master the techniques and skills needed to collect, analyze, and integrate information using a safety and security focus to develop a supportable regulatory conclusion.
- f. Have the personal and interpersonal skills to carry out assigned regulatory activities, either individually or as a member of a team.
- g. Master the ability to develop schedules for licensing and regulatory actions by working cooperatively with the review team and Branch Chief.

Program Organization

The PM/TR qualification process develops your awareness of the role of the agency, your role and skill as a PM/TR, and your technical expertise for conducting health and safety and security. The final activity in the qualification process is to appear before a qualification board. Successful completion of the qualification board examination validates your understanding of the role of the agency, Office of Nuclear Material Safety and Safeguards (NMSS) programs, and your role as a PM/TR. Upon successful completion of all the activities in the qualification journal, including the qualification board, you become eligible to receive the *Uranium Recovery Project Manager or Technical Reviewer Qualification Certification*.

Qualification Journal Organization

The qualification journal identifies the training courses, the Individual Study Activities (ISAs) and On-The-Job Training (OJT) activities you must complete. Document your progress on the signature cards and certifications as you move through the qualification process. The journal also contains a form to document the justification for accepting equivalent training or experience as a way to meet PM/TR qualification requirements. The signature cards, certification, and equivalency justification pages form the permanent record of completing the PM/TR qualification program. These pages will be scanned and placed in your official personnel file by your immediate supervisor.

Your immediate supervisor should consider assigning a qualified PM/TR to assist you. This person would serve as a resource and mentor by answering any questions or providing guidance as you work to complete this qualification journal.

Required Online Training Courses

The PM/TR candidate should complete all NRC required new employee training, and all annual, biannual, and triannual NRC required refresher training courses should be up-to-date or completed, before qualification is completed.

The following online courses should be completed by the PM/TR candidate for qualification. These courses can be taken in any order:

- Introduction to Occupational Safety Health Administration Health (OSHA)
- Freedom of Information Act
- NRC: An Agency Overview
- ADAMS Navigator- Overview
- The Regulatory Process (Web-based)

NOTE: It is your responsibility to meet your Region's and NMSS's deadlines for taking some of the above online self-study course work. Be aware that the list of online training courses may change in between revisions to this qualification journal.

Required Training Courses

- Site Access Training (H-100)
- Health Physics Practices for Uranium Recovery (F-104) or Fundamental Health Physics I and II (H-122)
- Environmental Monitoring for Radioactivity (H-111)
- Fuel Cycle Processes (F-201S) or Fuel Cycle Processes (3-day seminar)
- NEPA for the Uninitiated

The required training courses are the minimum courses that you should take to complete the Uranium Recovery PM/TR Qualification. Your immediate supervisor will determine the appropriate training courses you must take to complete the PM/TR qualification.

All Uranium Recovery PM/TRs involved with the materials security program must take S-201 or be able to demonstrate that they have the equivalent training or experience.

Immediate supervisors have the authority to waive any of the other required classes based on the experience of the candidate seeking qualification as a PM/TR. Document the reason for the waiver on Form 1: Uranium Recovery PM/TR Equivalency Justification. While your immediate supervisor may waive certain classes, your qualification still requires certification by your regional administrator, office director, or their designee.

Specialized Training Courses (Not all required, your supervisor will determine which apply)

- Inspection Procedures (G-108)
- Licensing Practices and Procedures (G-109)
- Root Cause/Incident Investigation Workshop (461)
- Site Access Refresher Training (H-101)
- Air Sampling for Radioactive Materials (H-119)
- Transportation of Radioactive Materials (H-308)
- Respiratory Protection (H-311)
- Internal Dosimetry (H-312)
- Health Physics Statistics (H-401)
- MARSAME: Multi-Agency Radiation Survey and Assessment of Materials and Equipment (H-120)

- MARSSIM: Multi-Agency Radiation Survey and Site Investigation (H-121)
- MILDOS-Area Training Workshop (H-413)
- RESRAD Overview (H-408)
- NRC Materials Control, Security Systems & Principles (S-201)
- Effective Communications for NRC Inspectors (100)
- Gathering Information for Inspectors through Interviews (135)
- Media Training Workshop (571)
- Overview: Considerations in Tribal Interactions (ID_204144)

Additional courses may be developed after the publication of this qualification journal. Immediate supervisors may include these new specialized training courses in the qualification journals.

Refresher Training

Qualified PM/TRs must maintain their qualification by completing 24 hours of refresher training in the established requalification cycle of 24 months. The beginning of each requalification cycle will be determined using the month and year the PM/TR completed his or her qualification. If the date the PM/TR completed his or her qualification is unknown, the immediate supervisor should establish a requalification cycle based on the best available information. The PM/TR's immediate supervisor may grant a 6-month extension if, for good reason, the PM/TR is unable to complete the required refresher training within the limits of the requalification cycle.

Refresher training may consist of either health and safety or security topics. The qualified PM/TR's immediate supervisor will determine the training courses the license reviewer needs and will coordinate with Human Resources Training and Development (HRTD) staff, as necessary, to obtain the needed training. Additionally, the immediate supervisor can consult with HRTD staff to help identify specific courses that the staff member can take for refresher training. Examples of training that may be considered include: Health Physics Topics (H-401), NRC technical training courses, external training courses, attending lectures, developing presentations on subjects related to health and safety or security, directed self-study courses (identified in iLearn), or other training approved by the qualified PM/TR's immediate supervisor.

It is important to note that only taking a single course may not be enough refresher training. Completing the refresher training will depend on the number of hours that the qualified staff member has completed.

Before taking refresher training, PM/TRs should receive approval from their immediate supervisor to confirm that the training will be credited as refresher training. The immediate supervisor should take into consideration the objectives of the training and determine whether the training will be beneficial to the PM/TR. When considering a self-study style of training, the

immediate supervisor should determine whether the training is appropriately structured. If the immediate supervisor is unsure if the self-study training is appropriate, he or she may want to consult with HRTD staff for its analysis of the training.

NOTE: PM/TRs may retake a course they had taken previously for refresher training. An immediate supervisor should consider whether it would be beneficial for the PM/TR to retake the course. An immediate supervisor should consider whether there have been changes in technology, regulations, or if the course has changed considerably since the last time the PM/TR took the course before allowing a course to be taken for refresher training. If the immediate supervisor allows the PM/TR to retake the course, the PM/TR must complete and pass the exam, if the course has one, to receive credit for the course.

For staff who qualified under IMC 1246, the new refresher training requirements in IMC 1248 begin when IMC 1248 is issued. When transitioning from IMC 1246 to IMC 1248, staff will have an extension of up to 1 year to meet the new refresher training requirements.

Uranium Recovery PM/TR Competencies

The training and qualification program detailed in this qualification journal ensures that every PM/TR acquires competency in three general areas:

Area 1: Understand the legal basis and the regulatory processes for achieving the NRC's regulatory objectives by:

- Acquiring a fundamental understanding of the NRC's organizational structure, mission, goals, and objectives (Regulatory Framework)¹
- Understanding the basis for the authority of the agency (Regulatory Framework)
- Understanding the processes established to achieve the regulatory objectives (Regulatory Framework)

Area 2: Master the techniques and skills needed to collect, analyze, and integrate information using a safety and security focus to develop a supportable regulatory conclusion by:

- Independently gathering information through objective review, observation, and open communications (Inspection)
- Evaluating licensing information by conducting an objective review (Licensing Activities)
- Determining acceptability of information by comparing to established criteria (Inspection and Licensing Activities)
- Objectively analyzing and integrating information using a safety and security focus to identify the appropriate regulatory conclusion and regulatory response (Enforcement)

Area 3: Have the personal and interpersonal skills to carry out assigned regulatory activities either individually or as a member of a team by:

- Expressing ideas or thoughts clearly, carefully listening, and speaking and writing with appropriate safety and security focus and context (Communication)
- Working collaboratively to develop schedules for licensing and regulatory actions (Project Management)
- Working collaboratively with others toward common objectives (Teamwork)

¹ Specific competency areas are listed in parenthesis following each item

- Working independently, exercising judgment, and exhibiting flexibility in the completion of activities including during difficult or challenging situations (Self-Management)
- Using technology to locate, gather, manipulate, and share information (Information Technology)

Uranium Recovery PM/TR Individual Study Activity

The individual study activities (ISAs) direct and focus your efforts as you review documents and perform technical training assignments important to the performance of your job. Each activity begins with a purpose statement informing you of why the activity is important and how it relates to the PM/TR function. The evaluation criteria identify what you are expected to achieve upon completing the activity. The evaluation criteria are listed up front so that you can review them first. Use the evaluation criteria to help you focus on what is most important. The tasks outline the things you must do to successfully address the evaluation criteria.

The following general guidance applies as you complete the various study activities:

- ✓ The first ISA should be done first. Becoming familiar with the agency, the internal and external Web sites, your overall role as a PM/TR and the NRC's safety culture is important for successfully completing many of the remaining activities. You should also become familiar with the content of the remaining ISAs so that you can complete the ISAs as opportunities arise.
- ✓ Complete all assigned parts of each activity.
- ✓ Your immediate supervisor will act as a resource as you complete each activity. Your immediate supervisor also may designate qualified PM/TRs as mentors to work with you as you complete the various activities. Discuss any questions you may have about the content of anything you read with your immediate supervisor or mentor.
- ✓ You are responsible for keeping track of the tasks you have completed. Be sure to complete all the assigned tasks in each activity before meeting with your immediate supervisor for evaluation.

Uranium Recovery PM/TR Individual Study Activity

- TOPIC: (ISA-1) History and Organization of the U.S. Nuclear Regulatory Commission
- PURPOSE: The purpose of this activity is to familiarize you with the regulatory history of radioactive material and the evolution of the regulatory framework under which today's NRC staff functions. During this activity, you will review the organization of the agency and its staff and the relationships between the NRC Commissioners and major offices.
- COMPETENCY AREA: REGULATORY FRAMEWORK
- REFERENCES:
1. Title 10 of the *Code of Federal Regulations* (10 CFR)
 2. NUREG-0980, "Nuclear Regulatory Legislation" (use the most current version available on the NRC Web site)
 3. NUREG-1350, "Information Digest" (use the most current version available on the NRC Web site)
 4. NUREG/BR-0175, "A Short History of Nuclear Regulation, 1946-2009," Revision 2, September 2010
 5. Management Directive (MD) 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)"
 6. MD 5.8, "Proposed Section 274b Agreement with States"
- EVALUATION CRITERIA:
- Upon completion of this activity, you will be asked to demonstrate your understanding of the agency's regulatory history, its interaction with the Commissioners, and development of the commercial, industrial, and medical applications of radioactive material by successfully doing the following:
1. Discuss the purpose of the Atomic Energy Act of 1954, as amended.
 2. Discuss the major regulatory impacts of the Energy Reorganization Act of 1974, as amended.

3. Discuss the major regulatory impacts of the Energy Policy Act of 2005.
4. Discuss the roles and responsibilities and relationship between the regions and the NMSS programs.
5. Discuss the relationship between the NRC and Agreement States.
6. Outline the major offices and briefly describe the functions of the Commission, the Office of the Inspector General, Office of the Secretary, the Atomic Safety and Licensing Board, the Advisory Committee on the Medical Uses of Isotopes, and Commission staff and program offices, including the Chief Financial Officer and Executive Director for Operations.
7. Locate Commission-related documents and discuss how the Commission uses staff requirements memoranda to direct the staff.
8. Describe the NMSS and Region's organization and key management positions.

TASKS:

1. Obtain paper or electronic copies or locate electronic locations of the above-stated reference material for personal use and future reference. Some documents may be available through the regional Public Affairs Office. You can find electronic copies of documents on the NRC external Web site in the NRC Library.
2. Review the reference material to gain an understanding of the principles discussed in the evaluation criteria.
3. Read about the Commission's direction setting and policymaking activities under Policymaking and understand the different kinds of decision documents that the Commission issues.
4. Review and discuss the items listed in the evaluation criteria with your immediate supervisor.

DOCUMENTATION:

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-1.

Uranium Recovery PM/TR Individual Study Activity

TOPIC: (ISA-2) Overview of Title 10 of the Code of Federal Regulations

PURPOSE: The purpose of this activity is to acquaint you with the regulations that specify the requirements for all aspects of the NRC, including the use of radioactive materials, disposal, fees, and export and import of nuclear material and equipment. This ISA will help you to understand the regulations and become familiar with specific requirements in the regulations.

COMPETENCY AREA: REGULATORY FRAMEWORK

- REFERENCES:
1. The NRC internal home page
 2. Paper copy of the latest revisions to 10 CFR Parts 1 through 50
 3. Paper copy of the latest revisions to 10 CFR Parts 51 through 199

- EVALUATION CRITERIA:
- Upon completion of the tasks in this activity, you will be asked to demonstrate your understanding of the general content of 10 CFR by successfully discussing the following:
1. State the general purpose of 10 CFR Parts 2, 19, 20, 40, 51, 61, 70, 71, 110, 150, 170, and 171.
 2. Given a specific subject, identify which section in 10 CFR discusses the requirements for that subject.
 3. Discuss the parts of the regulations identified as the focus area for your discipline.
 4. Successfully answer the problems and questions about the regulations provided to you by your immediate supervisor. The problems and questions may be developed by your immediate supervisor or a qualified staff member assigned to assist you with qualification.
- Be able to discuss the difference between specific license of limited scope, specific license of broad scope, general license, and persons exempt from licensing.

TASKS:

1. Read and be familiar with the following parts of 10 CFR: Parts 2, 20, 40, and 51.
2. Identify with your immediate supervisor what parts of the regulations you should focus on during your review.
3. Answer the problems and questions about the regulations provided by your immediate supervisor and discuss your answers with your immediate supervisor and a senior technical staff member.
4. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

DOCUMENTATION:

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-2.

Uranium Recovery PM/TR Individual Study Activity

- TOPIC: (ISA-3) Generic Communications
- PURPOSE: The purpose of this activity is to become familiar with the different categories of generic communications, the appropriate uses of each type and the procedures associated with them.
- COMPETENCY AREA: REGULATORY FRAMEWORK
- REFERENCES:
1. Review the Generic Communications Program Web page at <http://www.nrc.gov/about-nrc/regulatory/gencomms.html>
 2. IMC 0730, "Generic Communications Regarding Materials and Fuel Cycle Issues"
 3. MD 8.18, "NRC Generic Communications Program"

NOTE: Please note that the link above is subject to change and is provided for your convenience. You are responsible for locating the most current information.

- EVALUATION CRITERIA: Upon completion of this activity, you will be asked to demonstrate your general understanding of different types of NRC generic communications and the purposes of each type.
1. Describe the different kinds of generic communications and their purposes.
 2. Describe what can and cannot be required in the specific types of generic communications.
- TASKS:
1. Review the references to understand the principles discussed in the evaluation criteria.
 2. Identify with your immediate supervisor and review Information Notices (INs) and Regulatory Issue Summaries (RISs) pertinent to your position.
 3. Meet with your immediate supervisor for discussing generic communications.
- DOCUMENTATION: Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-3.

Uranium Recovery PM/TR Individual Study Activity

TOPIC:	(ISA-4) NRC Inspection Manual Chapters (IMC), Inspection Procedures (IP), and other References
PURPOSE:	This ISA will help you to familiarize yourself with the IMCs and IPs that have been developed and are available that relate to inspections. Those references that you will focus on will be identified by your immediate supervisor.
COMPETENCY AREA:	INSPECTION
REFERENCES:	<ol style="list-style-type: none">1. IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports"2. IMC 0620, "Inspection Documents and Records"3. IMC 2641, "In-situ Leach Facilities Inspection Program"4. IMC 2800, "Materials Inspection Program"5. IMC 2801, "Uranium Mill 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program"6. IP 40002, "Inspections to Review Allegations"7. IP 83822, "Radiation Protection"8. IP 86740, "Inspection of Transportation Activities"9. IP 87102, "Maintaining Effluents from Materials Facilities ALARA"10. IP 87104, "Decommissioning Inspection Procedure for Material Licensees"11. IP 87654, "Uranium Mill Site Decommissioning Inspection"12. IP 88005, "Management Organization and Controls"13. IP 88035, "Radioactive Waste Processing, Handling Storage, and Transportation"14. IP 88045, "Effluent Control and Environmental Protection"15. IP 89001, "In-Situ Leach Facilities"16. IP 92703, "Followup of Confirmatory Action Letters or Orders"17. IP 88050, "Emergency Preparedness"

18. IP 88055, "Fire Protection (Annual)"
19. IP 93812, "Special Inspection"

**EVALUATION
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of the purpose of the IMCs and IPs as well as the type of information contained in them.

1. Discuss the IMCs and IPs you have reviewed.
2. Describe the purpose of the IMCs.
3. Describe how the IPs are used during inspection.

TASKS:

1. Locate electronic versions of the IMCs and IPs at:
<http://www.nrc.gov/reading-rm/doc-collections/insp-manual/>.
2. Review the IMCs and IPs.
3. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

NOTE: Please note that the links above are subject to change and are provided for your convenience. You are responsible for locating the most current information.

DOCUMENTATION:

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-4.

Uranium Recovery PM/TR Individual Study Activity

TOPIC: (ISA-5) Differing Views Programs

PURPOSE: The purpose of this activity is to communicate expectations for establishing and maintaining an open, collaborative working environment (OCWE) and to provide guidance on the informal and formal processes for pursuing resolution of differing views directly related to the NRC’s mission. The NRC strives to establish and maintain an OCWE that encourages all employees and contractors to promptly voice differing views without fear of retaliation. At the NRC, we encourage trust, respect, and open communication to foster and promote a positive work environment that maximizes the potential of all individuals and improves our regulatory decision making. We expect individuals to be NRC Team Players. In addition to informal discussions, which should be sufficient to resolve most issues, individuals have various mechanisms for expressing and having their differing views heard by decision makers, including the Open Door Policy, the Non-Concurrence Process (NCP), and the Differing Professional Opinions (DPO) Program. This activity will provide you with an understanding of the expected behaviors for being an NRC Team Player who supports an OCWE and key features of the Open Door Policy, the NCP, and the DPO Program.

COMPETENCY
AREAS:

INSPECTION
SELF-MANAGEMENT
COMMUNICATION

- REFERENCES:
1. OCWE Web site:
<http://www.internal.nrc.gov/OE/dva/index.html>
 2. NCP Web site: <http://www.internal.nrc.gov/OE/nonconcur/index.html>
 3. DPO Program Web site:
<http://www.internal.nrc.gov/OE/dpo/index.html>
 4. MD 10.160, “Open Door Policy”
 5. MD 10.158, “NRC Non-Concurrence Process”
 6. MD 10.159, “The NRC Differing Professional Opinions Program”
 7. Complete the NRC required annual No FEAR Act training.

8. Review regional instructions establishing additional implementing guidance for raising differing views.

NOTE: Please note that the links above are subject to change and are provided for your convenience. You are responsible for locating the most current information.

EVALUATION

CRITERIA:

Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC OCWE and the Ways to Raise Differing Views Program by successfully addressing the following:

1. State the expectations for an OCWE and behaviors for being an NRC Team Player.
2. Describe the Open Door Policy.
3. Describe the key features of the NCP.
4. Describe the key features of the DPO Program.
5. Discuss under which circumstances the various methods available for expressing differing views would be used.
6. Describe where summaries of closed DPOs are published and where DPO Program reviews are available.
7. Identify your Region's Differing Views Office Liaison.

TASKS:

1. Attend a seminar (if possible) on OCWE and Ways to Raise Differing Views, or review seminar slides.
2. Explore information and guidance for OCWE, Open Door Policy, NCP, and the DPO Program on identified Web sites.
3. Review MD 10.158, MD 10.159 and MD 10.160.

DOCUMENTATION:

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-5.

Uranium Recovery PM/TR Individual Study Activity

TOPIC: (ISA-6) The NRC's Response to an Emergency at a Nuclear Facility

PURPOSE: The purpose of this activity is to acquaint you with the actions that the NRC takes in response to an emergency that may occur at a nuclear facility. Emergency response is vital to the agency, fulfilling one of its primary mandates of protecting the health and safety of the public. As a fully qualified PM/TR, you will be trained to perform specific emergency response activities. This individual study activity will help you understand how the NRC meets its emergency response mandate and will begin to build the knowledge you will need later to successfully perform your assigned emergency response responsibilities.

COMPETENCY
AREA: EMERGENCY RESPONSE

REFERENCES:

1. NRC internal Web page (Program Office to Nuclear Security and Incident Response (NSIR))
2. MD 8.2, "NRC Incident Response Program"
3. Regional Policy Guide for Emergency Response
4. NUREG-0728, "NRC Incident Response Plan"
(<http://www.nrc.gov/about-nrc/emerg-preparedness/respond-to-emerg/ml050970236.pdf>). (Note: This NUREG is revised periodically to reflect changes to the agency's activities. Be sure to obtain the most recent version.)

EVALUATION
CRITERIA:

Upon completion of this activity, you will be asked to demonstrate your understanding of the role of the agency and your Region or office in protecting public health and safety when responding to emergency situations at a nuclear facility by successfully addressing the following:

1. Identify the types of emergency classifications and give examples of when the different classifications would be declared.
2. Identify the different modes of NRC emergency response and describe the purpose of each mode.
3. Discuss the capabilities (e.g., communications, information technology) provided in the Headquarters, regional, and onsite emergency response facilities.

4. Recognizing that these positions may not apply to all nuclear facilities and that the NRC will act with all available resources to respond to an emergency, identify the responsibilities of the following during a declared emergency event:
 - a. Resident staff
 - b. Region-based staff
 - c. Headquarters staff
 - d. Headquarters operations officer
 - e. Licensee
 - f. State and local officials
 - g. Site team
 - h. Base team

5. If you are onsite when an emergency is declared, explain the difference in your actions if the resident inspectors are or are not onsite.

TASKS:

1. Explore all aspects of the NSIR organization presented on the NRC's internal home page.
2. Review your Region or office's policy guidance on emergency response.
3. Review the NRC Incident Response Plan to address the evaluation criteria. Obtain a tour of your Incident Response Center.
4. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

DOCUMENTATION:

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-6.

Uranium Recovery PM/TR On-the-Job Activities

The Appendix I on-the-job training (OJT) activities require you to perform accompaniments, as assigned by your immediate supervisor, under the supervision of qualified PM/TR. Typically, you will be expected to assist the qualified PM/TR on the first assignments and then gradually take on more of the responsibility for the PM/TR tasks. Appendix G also requires that you perform license reviews, as assigned by your immediate supervisor, under the supervision of a qualified license reviewer. The belief is that you will make a better PM/TR if you are familiar with the licensing process and how to properly develop schedules for licensing and regulatory actions then manage the review to meet those metrics. The activities allow you to observe and perform key license reviewer tasks. Like the ISAs, each OJT activity tells you why the activity is important and what you are expected to complete successfully during the activity. The OJT activities do not specify that a particular number of accompaniments or supervised license reviews need to be completed before the immediate supervisor considers you to be competent because numbers of completions don't always reflect competency. This is something only your immediate supervisor, assisted by the qualified PM/TR working with you, can determine.

As you complete license reviews, you should complete the License Review Form located at the end of this Appendix and ask the qualified license reviewer working with you to provide her or his comments. These forms will be used to track your progress as a PM/TR. When your immediate supervisor concludes you are competent to inspect a specific program code or group of program codes on your own, or perform license reviews of a specific program code or group of program codes on your own, she or he will request that you be given interim qualification for the work you have demonstrated yourself to be competent. Interim qualification is approved by division management. Eventually, your immediate supervisor will determine you are ready to demonstrate your full competency at an oral qualification board.

Your immediate supervisor has the authority to waive any of the OJT activities by completing Form 1: Uranium Recovery PM/TR Equivalency Justification, found at the end of this qualification journal.

The following general guidance applies as you complete the various on-the-job activities:

- ✓ Complete all assigned parts of each activity.
- ✓ Your immediate supervisor or a qualified PM/TR will act as a resource as you complete each activity. Discuss any questions you may have about how a task must be done or how the guidance is to be applied.
- ✓ You are responsible for keeping track of the tasks you have completed. Be sure that you have completed all aspects of an OJT activity before you meet with your immediate supervisor or qualified PM/TR for evaluation.

Uranium Recovery PM/TR On-the-Job Activity

TOPIC: (OJT-1) Inspection Accompaniments

PURPOSE: The purpose of this activity is to (1) acquaint you with the different types of materials users, (2) familiarize you with the types of use of radioactive materials, (3) familiarize you with the security requirements imposed on certain licensees, and (4) provide you with the opportunity to observe how inspectors use licensing documents issued by the Regions or Headquarters to inspect materials licensees.

COMPETENCY AREAS: INSPECTION

- REFERENCES:
1. Licensee radioactive materials possession license
 2. Appropriate IMCs and IPs
 3. Previous inspection report
 4. License Application
 5. Security Orders, Corrective Action Letters, Allegations, etc.
 6. Pre-Inspection Guidance

EVALUATION CRITERIA: Upon completion of this activity, you will be asked to demonstrate your understanding of the type of inspection conducted at the licensees' facilities as well as any type of security inspection conducted:

1. Identify the types of licensees inspected.
2. Describe how the inspector used the reference documents to conduct the inspection.
3. Explain the potential violations that were cited by the inspector. Explain why the licensee was cited.

TASKS:

1. As assigned by your immediate supervisor, accompany a qualified inspector, PM, or TR, and assist a qualified Inspector, PM, or TR with the performance of a variety of health and safety inspections. Your immediate supervisor will determine the actual number and type of inspections. You are responsible for keeping track of the inspections that you accompanied.

2. Assist in the inspection preparation activities (i.e., collect background information as necessary; participate in pre-inspection meetings as necessary; identify any follow up that may be required from previous inspections, or allegations)
3. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

DOCUMENTATION: Complete the Inspection Accompaniment Form for each inspection accompaniment you perform and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-1.

Uranium Recovery PM/TR On-the-Job Activity

TOPIC: (OJT-2) Licensing Case Work

PURPOSE: The purpose of this activity is to (1) familiarize you, the PM/TR candidate, with the NRC materials license review process and (2) provide you with the opportunity as a PM/TR candidate to review and complete licensing actions under the supervision of a qualified PM, TR, or license reviewer. Whenever possible, the PM/TR candidate will work on actual licensing actions; however, because some types of licensing actions are rare, the PM/TR candidate may have to occasionally review completed licensing actions as part of license reviewer training.

COMPETENCY
AREAS: LICENSING ACTIVITIES

REFERENCES:

1. 10 CFR Part 40, Appendix A.
2. Division of Decommissioning, Uranium Recovery, and Waste Programs, "Operations Manual Instructions / Procedures"
3. NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs"
4. NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications"
5. NUREG-1620, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978"
6. NUREG-1623, "Design of Erosion Protection for Long-Term Stabilization"
7. NUREG/CR-6733, "A Baseline Risk-Informed, Performance-Based Approach for In Situ Leach Uranium Extraction Licensees"
8. NUREG-2126, "Standard Review Plan for Conventional Uranium Mill and Heap Leach Facilities, Draft Report for Comment"
9. NUREG-1910, "Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities"
10. NUREG-0706, "Final Generic Environmental Impact Statement on Uranium Milling"
11. NUREG-2173, "Tribal Protocol Manual"
12. NUREG-1556, Vol. 15, Consolidated Guidance About Materials Licenses, Guidance About Changes of Control and About Bankruptcy Involving

Byproduct, Source, or Special Nuclear Materials Licenses”

13. Regulatory Guide 3.11, Rev. 3, “Design, Construction and Inspection of Embankment Retention Systems at Uranium Recovery Facilities”
14. Regulatory Guide 3.46, “Standard Format and Content of License Applications, Including Environmental Reports, for In Situ Uranium Solution Mining”
15. Regulatory Guide 3.63, “Onsite Meteorological Measurement Program for Uranium Recovery Facilities – Data Acquisition and Reporting”
16. Regulatory Guide 4.14, Rev. 1, “Radiological Effluent and Environmental Monitoring at Uranium Mills”
17. Regulatory Guide 4.15, “Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) – Effluent Streams and the Environment”
18. Regulatory Guide 4.22, “Decommissioning Planning During Operations”
19. Regulatory Guide 8.22, Rev. 2, “Bioassay at Uranium Mills”
20. Regulatory Guide 8.30, Rev. 1, “Health Physics Surveys in Uranium Recovery Facilities”
21. Regulatory Guide 8.30, Rev. 1, “Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities will be as low as is Reasonably Achievable”
22. Regulatory Issue Summary 2009-05, “Uranium Recovery Policy Regarding: (1) The Process for Scheduling Licensing Reviews of Applications for New Uranium Recovery Facilities and (2) The Restoration of Groundwater at Licensed Uranium In Situ Recovery Facilities”
23. Regulatory Issue Summary 2009-12, “Uranium Recovery Policy Regarding Site Preparation Activities at Proposed, Unlicensed Uranium Recovery Facilities”
24. Regulatory Issue Summary 2009-14, “Licensing Approach for Uranium In Situ Recovery Facility Applications”
25. Regulatory Issue Summary 2011-11, “Regarding Long-Term Surveillance Charge for Conventional or Heap Leach Uranium Recovery Facilities Licensed Under 10 CFR Part 40”
26. Regulatory Issue Summary 2012-06, “NRC Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities”
27. Regulatory Issue Summary 2014-08, Rev. 1 “Regulatory Requirements for

Transfer of Control (Change of Ownership) of Specific Materials Licenses”

28. Regulatory Issue Summary 2015-09, “Decommissioning Timeliness Rule Implementation and Associated Regulatory Relief”
29. Information Notice 1999-03, Rev. 1: “Exothermic Reaction Involving Dried Uranium Oxide Powder (Yellowcake)”

NOTE: Please note that the references above are subject to change and are provided for your convenience. You are responsible for locating the most current information.

**EVALUATION
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC licensing process, distinguish between the different types of licenses issued by the NRC, demonstrate your ability to review applications and submit request for additional information, and be able to discuss how a materials license affects the inspection:

1. Discuss the NRC’s licensing process (i.e., what type of licenses should be issued for specific programs; discuss the internal NRC process from receiving an application, amendment, renewal, or termination; and internal metrics for issuing licensing actions).
2. Discuss the licensing actions that you reviewed regarding the applicant or licensee’s request as well as the request for additional information if necessary.
3. Describe how and in what instances you used the pre-licensing guidance.
4. Describe the focus of the pre-licensing site visit (if any).
5. Discuss if any of the licensing actions required the licensee or applicant to implement the security requirements.
6. Discuss how to develop and set licensing and regulatory action schedules and manage those reviews to meet the metrics.

TASKS:

1. Work with a qualified PM, TR, or license reviewer to review licensing actions and develop licensing review schedules. Your immediate supervisor will determine the actual number and type of licensing actions.
2. You are responsible for reviewing the licensing actions and developing requests for additional information as necessary. The candidate should use the appropriate guidance documents as a reference as well as the qualified license reviewer designated by your immediate supervisor to be your resource during your training.

NOTE: An individual who has already completed the requirements for the Materials or Decommissioning PM/TR, or is currently a qualified Materials or Decommissioning PM/TR, may take credit for the training or the experience he or she has had as a license reviewer as long as the above minimum criteria have been met.

3. You are responsible for keeping track of the licensing actions that you have worked on.
4. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

Uranium Recovery PM/TR On-the-Job Activity

TOPIC: (OJT-3) Uranium Recovery Process

PURPOSE: The purpose of this activity is to (1) familiarize you, the PM/TR candidate, with the NRC uranium recovery process and (2) provide you with the opportunity as a PM/TR candidate to review and complete uranium recovery actions under the supervision of a qualified PM/TR. Whenever possible, the PM/TR candidate will work on actual uranium recovery actions.

COMPETENCY AREAS: REGULATORY FRAMEWORK, LICENSING ACTIVITIES

REFERENCES:

1. 10 CFR Part 40, Appendix A.
2. NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications"
3. NUREG/CR-6870, "Consideration of Geochemical Issues in Groundwater Restoration at Uranium In-Situ Leach Mining Facilities"
4. NUREG-1620, Rev. 1, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978"
5. NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs"

NOTE: Please note that the references above are subject to change and are provided for your convenience. You are responsible for locating the most current information.

EVALUATION CRITERIA:

Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC uranium recovery process, demonstrate your ability to review applications and submit request for additional information

- 1 Discuss the NRC's uranium recovery licensing and oversight process.
- 2 Discuss the uranium recovery actions that you reviewed, if any, regarding the applicant or licensee's request as well as the request for additional information if necessary.
3. Discuss if any of the licensing actions required the licensee or

applicant to implement the security requirements.

TASKS:

1. Work with a qualified PM/TR to review uranium recovery actions. Your immediate supervisor will determine the actual number and type of uranium recovery actions.
2. You are responsible for reviewing the uranium recovery actions and developing requests for additional information as necessary. The PM/TR candidate should use the appropriate guidance documents as a reference as well as the qualified designated by your immediate supervisor to be your resource during your training.
3. You are responsible for keeping track of the uranium recovery actions on which you have worked.
4. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the items listed in the evaluation criteria section.

NOTE: An individual who has already completed the requirements for the Materials or Decommissioning PM/TR, or is currently a qualified Materials or Decommissioning PM/TR, may take credit for the training or the experience he or she has had as a license reviewer as long as the above minimum criteria have been met.

DOCUMENTATION:

Complete a License Review Form for each action reviewed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-3.

Uranium Recovery PM/TR Signature Cards and Certification

Uranium Recovery Project Manager or Technical Reviewer's Name: _____	Employee Initials/Date	Immediate Supervisor's Signature/Date
A. <u>Required and Specialized Training</u> (Your supervisor will determine which specialized training apply)		
Required: Site Access Training (H-100) (R)		
Required: Health Physics Practices for Uranium Recovery Course (F-104) or Fundamental Health Physics I and II (H-122) (R)		
Required: Environmental Monitoring for Radioactivity Course (H-111) (R)		
Required: Introduction to National Environmental Policy Act (R)		
Required: Fuel Cycle Processes (F-201S) or Fuel Cycle Processes (3-day seminar) (R)		
Required:		
Specialized:		
Specialized:		
B. <u>Individual Study Activities</u>		
ISA-1 History and Organization of the U.S. Nuclear Regulatory Commission		
ISA-2 Code of Federal Regulations		
ISA-3 Generic Communications		
ISA-4 NRC Inspection Manual Chapters (IMC)		
ISA-5 Differing Views Programs		
ISA-6 The NRC Response to an Emergency at a Nuclear Facility		
C. <u>On-the-Job Training Activities</u>		
OJT-1 Inspection Accompaniments		
OJT-2 Licensing Case Work		
OJT-3 Uranium Recovery Process		

This signature card and certification must be accompanied by the appropriate Form 1, Uranium Recovery PM/TR Equivalency Justification, if applicable.

Uranium Recovery Project Manager/Technical Reviewer
Certification

(name)

has successfully completed all of the requirements
to be certified as a

**URANIUM RECOVERY
PROJECT MANAGER/TECHNICAL REVIEWER**

Immediate Supervisor Signature: _____ Date: _____

Note: When a Technical Reviewer is certified, the term Technical Reviewer will replace Project Manager on the Signature Card above.

Form 1: Uranium Recovery PM/TR Equivalency Justification

Uranium Recovery Project Manager or Technical Reviewer's Name: _____	Identify equivalent training and experience for which the Uranium Recovery PM/TR is to be given credit.
A. Required and Specialized Training (Your supervisor will determine which specialized training apply)	
Required: Site Access Training (H-100) (R)	
Required: General Health Physics Practices for Uranium Recovery Course (F-104) or Fundamental Health Physics I and II (H-122) (R)	
Required: Environmental Monitoring for Radioactivity Course (H-111) (R)	
Required: Introduction to National Environmental Policy Act (R)	
Required: Fuel Cycle Processes (F-201S) or Fuel Cycle Processes (3-day seminar) (R)	
Required:	
Specialized:	
Specialized:	
B. <u>Individual Study Activities</u>	
ISA-1 History and Organization of the U.S. Nuclear Regulatory Commission	
ISA-2 Code of Federal Regulations	
ISA-3 Generic Communications	
ISA-4 NRC Inspection Manual Chapters (IMC)	
ISA-5 Differing Views Programs	
ISA-6 The NRC Response to an Emergency at a Nuclear Facility	
C. <u>On-the-Job Training Activities</u>	
OJT-1 Inspection Accompaniments	

Form 1: Uranium Recovery PM/TR Equivalency Justification

Uranium Recovery Project Manager or Technical Reviewer's Name: _____	Identify equivalent training and experience for which the Uranium Recovery PM/TR is to be given credit.
OJT-2 Licensing Case Work	
OJT-3 Uranium Recovery Process	

Immediate Supervisor's Recommendation Signature/Date _____

Division Director's Approval Signature/Date _____

INSPECTION COMPLETION FORM

Qualification Card #:

Licensee Name:

License No.:

Docket No.:

Program Code(s):

Inspection Type:	Initial	Routine	Special	Pre-Licensing
			Security	non-security

Inspection Date:

Program Scope:

Findings:

Candidate Inspector Signature:

Qualified Inspector Signature:

COMMENTS:

LICENSE REVIEW COMPLETION FORM

Qualification Card #:

Licensee Name:

License No.:

Docket No.:

Mail Control No.:

Program Code(s):

Action Type: NEW AMENDMENT RENEWAL TERMINATION

Amendment No.:

Scope of Licensing Action:

Deficiencies and Other Issues:

Candidate Reviewer Signature:

Qualified Reviewer Signature:

COMMENTS:

Attachment 1: Revision History Table for IMC 1248, Appendix I

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	ML112360177 10/26/11 CN 11-022	Revision history sheet added. Combined Appendix A13 with Appendix B13 and renamed as IMC 1246 Appendix E8. Added "training requirements" section from Appendix A13.	N/A	ML112360186
N/A	ML12240A158 04/19/13 CN 13-011	IMC 1248 Appendix I was created to replace IMC 1246 Appendix E8 and remove NMSS activities from the NMSS qualification journal IMC 1246 series. The qualification was originally published on January 5, 2001. No changes were made to the training requirements or qualification journal since they were published on January 5, 2001.	N/A	N/A
N/A	ML15294A423 07/02/19 CN 19-021	This is a major revision. IMC 1248, Appendix I was updated per IMC 0040 and to capture Uranium Recovery Project Manager and Technical Reviewer activities.	N/A	ML15294A426