

**IMC 1248, Appendix B**

**Materials Health Physics Inspector Qualification Journal**

## Contents

Introduction .....	B-1
Program Organization .....	B-1
Qualification Journal Organization.....	B-2
Required Online Training Courses .....	B-2
Required Training Courses .....	B-3
Specialized Training Courses.....	B-4
Refresher Training .....	B-5
Materials Health Physics Inspector Competencies.....	B-7
Materials Health Physics Inspector Individual Study Activities.....	B-9
(IS A-1) History and Organization of the U.S. Nuclear Regulatory Commission.....	B-10
(IS A-2) Navigating the NRC’s Internal and External Web Sites .....	B-12
(IS A-3) Materials Health Physics Inspector Objectivity, Protocol, and Professional Conduct .....	B-16
(IS A-4) Safety Culture .....	B-18
(IS A-5) Allegations.....	B-20
(IS A-6) Enforcement Program .....	B-23
(IS A-7) Office of Investigations .....	B-26
(IS A-8) Role of Agreement States in Radioactive Material Regulation Under Section 274 .....	B-28
(IS A-9) Reciprocity .....	B-31
(IS A-10) NRC Interagency Agreements.....	B-33
(IS A-11) Interactions with the Public and the Media.....	B-35
(IS A-12) Hearings.....	B-38
(IS A-13) Proprietary Information and Determinations .....	B-39
(IS A-14) The Freedom of Information Act and the Privacy Act.....	B-41
(IS A-15) Generic Communications .....	B-43
(IS A-16) Differing Views Programs .....	B-44
(IS A-17) Overview of Title 10 of the <i>Code of Federal Regulations</i> .....	B-46
(IS A-18) Agencywide Documents Access and Management System (ADAMS) .....	B-49
(IS A-19) Materials Security.....	B-50
(IS A-20) Review of Significant Events at Material Licensees .....	B-53
(IS A-21) Augmented Inspection Team, Special Inspection Team, and Incident Inspection Team Activities .....	B-55
(IS A-22) The NRC’s Response to an Emergency at a Nuclear Facility .....	B-57
(IS A-23) Generally Licensed Devices and Materials .....	B-59

(ISA-24) NRC Inspection Manual Chapters (IMC), Inspection Procedures (IP), and Other References.....	B-61
(ISA-25) Web-Based Licensing.....	B-64
Materials Health Physics Inspector On-the-Job Activities .....	B-65
(OJT-1) Industrial Radiography Programs .....	B-66
(OJT-2) Irradiator Programs .....	B-69
(OJT-3) Well Logging Programs .....	B-71
(OJT-4) Fixed and Portable Gauge Programs .....	B-73
(OJT-5) Materials Processor and Manufacturer Programs.....	B-75
(OJT-6) Industrial/Academic and Research Programs.....	B-78
(OJT-7) Radiopharmacy Programs.....	B-81
(OJT-8) Nuclear Medicine Programs .....	B-84
(OJT-9) Brachytherapy Programs.....	B-86
(OJT-10) Medical Gamma Stereotactic Radiosurgery and Teletherapy Programs.....	B-89
(OJT-11) Medical Broad-Scope Programs.....	B-91
(OJT-12) Decommissioning (Groups 1 and 2) .....	B-93
(OJT-13) Security Inspection Program.....	B-96
(OJT-14) Pre-Licensing Site Visits.....	B-99
(OJT-15) Licensing Case Work.....	B-101
Materials Health Physics Inspector Signature Cards and Certification .....	B-104
<i>Form 1: Materials Health Physics Inspector Equivalency Justification.....</i>	B-108
Inspection Completion Form .....	B-111
License Review Completion Form.....	B-112
Attachment 1: Revision History Table .....	Att 1-1

## Introduction

The U.S. Nuclear Regulatory Commission (NRC) Materials Health Physics Inspector (inspector) qualification program requires completion of a variety of activities designed to help you, the inspector 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 inspector. The role of an inspector 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 inspector's role is not to establish policy in the areas of health and safety or security. Inspectors should refer policy questions to their management and to the program office.

A competent inspector 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.

## Program Organization

The inspector qualification process develops your awareness of the role of the agency, your role and skill as an inspector, and your technical expertise for conducting health and safety and security inspections. 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 Federal and State Materials and Environmental Management Programs (FSME) programs, and your role as an inspector. Upon successful completion of all the activities in the qualification journal, including the qualification board, you become eligible to receive the *Materials Health Physics Inspector 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 inspector qualification requirements. The signature cards, certification, and equivalency justification pages form the permanent record of completing the inspector qualification program. These pages will be scanned and placed in your official personnel file.

Your immediate supervisor should consider assigning a qualified inspector 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

These courses can be taken in any order:

- Computer Security Awareness
- OSHA Training; the curriculum is on iLearn under: "Occupational Health and Safety (IMC-1248)"
- Ethics Overview for Employees, as part of ISA-3
- Ethics Training for NRC Employees, as part of ISA-3
- Allegations Training, as part of ISA-5
- Annual Personally Identifiable Information (PII) Responsibilities, as part of ISA-14
- Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (No FEAR Act), as part of ISA-16
- Agencywide Documents Access and Management System (ADAMS) Overview for NRC Staff, as part of ISA-18
- Information Security (INFOSEC) Awareness Training, as part of ISA-19

**NOTE:** It is your responsibility to meet your Region's and FSME'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

- Inspection Procedures (G-108)
- Root Cause/Incident Investigation Workshop (G-205)
- Site Access Training (H-100) or Site Access Refresher Training (H-101)
- Diagnostic and Therapeutic Nuclear Medicine (H-304)
- Safety Aspects of Industrial Radiography (H-305)
- Transportation of Radioactive Materials (H-308)
- Brachytherapy, Gamma Knife, and Emerging Technologies Course (H-313)
- NRC Materials Control & Security Systems & Principles (S-201)
- Effective Communication for NRC Inspectors
- Gathering Information for Inspectors Through Interviews
- Advanced Health Physics (H-201)

**NOTE:** Advanced Health Physics (H-201) is a challenging 2-week course that should not be taken unless the candidate has had previous health physics education or experience. The NRC offers two fundamental health physics courses (see Specialized Training Courses below) that should first be considered: Fundamental Health Physics I and II (H-122), a 2-week course, and Fundamental Health Physics III (H-123), a 1-week course. The candidate's resource or mentor or immediate supervisor should be able to help determine which courses, if any, the candidate should take before enrolling in the Advanced Health Physics (H-201) course.

Human Resources Training and Development (HRTD) suggests candidates take the Advanced Health Physics (H-201) course as one of their last required courses. The H-201 course builds on the different concepts taught in the other training courses. HRTD believes that candidates will have a better understanding of health physics concepts and technology if they take H-201 later in the qualification program.

The required training courses are the minimum courses that you should take to complete the Materials Health Physics Inspector Qualification. Your immediate supervisor will determine the appropriate training courses you must take to complete the inspector qualification. For example, your immediate supervisor may require you to complete the Safety Aspects of Well Logging course (H-314) or the Irradiator Technology course (H-315) or both (see Specialized Training Courses below) if your region has a significant number of these licensed programs to inspect.

All Materials Health Physics Inspectors 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 an inspector. Document the reason for the waiver on Form 1: Materials Health Physics Inspector Equivalency Justification. While your immediate supervisor may waive certain classes, your qualification still requires certification by your regional administrator, office director, or their designee.

If your management limited your training before your qualification because you would only be inspecting in a limited field (e.g., the medical field), your inspector certification should clearly indicate this limitation.

### **Specialized Training Courses**

- Licensing Practices and Procedures Course (G-109)
- Environmental Monitoring for Radioactivity (H-111)
- Air Sampling for Radioactive Materials (H-119)
- Multi-Agency Radiation Survey and Site Investigation (MARSSIM) (H-121)
- Multi-Agency Radiation Survey and Assessment of Materials and Equipment (MARSSAME) (H-120)
- Fundamental Health Physics I and II (H-122)
- Fundamental Health Physics III (H-123)
- Respiratory Protection (H-311)
- Internal Dosimetry and Whole Body Counting (H-312)
- Safety Aspects of Well Logging (H-314)
- Irradiator Technology Course (H-315)

- Health Physics Topics (H-401)
- RESRAD Training Workshop (H-410)
- RESRAD-OFFSITE Training Workshop (H-411)
- Visual Sampling Plan (H-500)
- Gathering Information for Inspectors through Interviews
- Media Training Workshop

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 inspectors 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 inspector completed his or her qualification. If the date the inspector completed his or her qualification is unknown, the immediate supervisor should establish a requalification cycle based on the best available information. The inspector's immediate supervisor may grant a 6-month extension if, for good reason, the inspector 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 inspector's immediate supervisor will determine the training courses the license reviewer needs and will coordinate with 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 inspector'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, inspectors 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 inspector. 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:** Inspectors may retake a course they had taken previously for refresher training. An immediate supervisor should consider whether it would be beneficial for the inspector 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 inspector took the course before allowing a course to be taken for refresher training. If the immediate supervisor allows the inspector to retake the course, the inspector must complete and pass the exam, if the course has one, to receive credit for the course.

To receive credit and track the number of hours needed for refresher training for training offered outside of the NRC training catalog, the inspector and immediate supervisor should provide the course details (title of training, number of hours, etc.) to either his or her division training coordinator or the appropriate HRTD staff. The training coordinator or HRTD staff will enter the information into iLearn. If there is any concern about the content of the training, HRTD management and the qualified inspector's management will resolve the concern. The use of iLearn will assist inspectors in keeping track of how many hours of refresher training they have completed within the requalification cycle.

**NOTE:** 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.

## Materials Health Physics Inspector Competencies

The training and qualification program detailed in this qualification journal ensures that every inspector 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)<sup>1</sup>
- 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 with others toward common objectives (Teamwork)

---

<sup>1</sup> 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)

## Materials Health Physics Inspector 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 inspector 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 four ISAs should be done first. Becoming familiar with the agency, the internal and external Web sites, your overall role as an inspector 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 inspectors 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.

## Materials Health Physics Inspector 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 Agreements with States"
  7. FSME Procedure BK-100: "Program Description Documentation," FSME external Web site at <http://nrc-stp.ornl.gov/procedures.html>.

**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 FSME programs.
5. Discuss the relationship between the NRC and Agreement States (See ISA-8 for additional information).
6. Outline the major offices and briefly describe the functions of the Commission, the Office of the Inspector General, Office of the Secretary (SECY), the Atomic Safety and Licensing Board, the Advisory Committee on the Medical Uses of Isotopes (ACMUI), and Commission staff and program offices, including the Chief Financial Officer and Executive Director for Operations (OEDO).
7. Locate Commission-related documents and discuss how the Commission uses staff requirements memoranda or SRMs to direct the staff.
8. Describe your Region's organization and key management positions.

**TASKS:**

1. Obtain paper 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.

## Materials Health Physics Inspector Individual Study Activity

- TOPIC:** (ISA-2) Navigating the NRC Internal and External Web Sites
- PURPOSE:** The purpose of this activity is to familiarize you with the NRC's internal and external Web sites and to acquaint you with the information available. Inspectors must routinely review a variety of documents to support their inspection activities. Many of these documents are available electronically. This ISA will familiarize you with the Web locations of documents and information vital to your job. Thus, you will begin to build the knowledge you will need later to successfully perform your assigned responsibilities.
- COMPETENCY AREA:** INFORMATION TECHNOLOGY
- REFERENCES:** NRC internal and external Web sites
- EVALUATION CRITERIA:** There are no specific evaluation criteria for this activity. Use your immediate supervisor or other agency personnel as a resource as you complete this activity.

**NOTE:** Circumstances may result in some parts of the Web sites being unavailable at times. Also, be aware that some of the Web sites' titles or content may change. Please review the most recent version of the Web site. Complete as much as possible.

- TASKS:** Open your Web browser and do the following:
1. Explore the NRC's internal home page.
    - a. Locate the Ethics area.
      - i. Review the information available.
      - ii. Note the various sources of ethics advice.
    - b. Locate the Library Services area (NRC Technical Library) and review the information available.
      - i. Review the contents of the Online Catalog
      - ii. Review the content in Codes and Standards

- c. Locate your Region's home page and review its functions.
  - i. Identify the Regional Administrator, NRC Regional Office.
  - ii. Find and review the office organization, and office instructions.
  
- d. Locate the FSME programs' home page and review the functions of this program office
  - i. Identify the FSME Director.
  - ii. Find and review the office organization, and office instructions.
  
- e. Locate the following offices' home pages and review the functions of the office:
  - i. Regional Offices
  - ii. Office of Nuclear Materials Safety and Safeguards
  - iii. Office of Enforcement
  - iv. Office of Nuclear Security and Incident Response
  - v. Office of International Programs
  - vi. Office of the General Counsel
  - vii. Office of Nuclear Reactor Regulation
  - viii. Office of New Reactors
  - ix. Office of Nuclear Regulatory Research
  - x. Office of Investigations
  
- f. Locate the Office of the Executive Director for Operations home page.
  - i. Review the OEDO's Communications Web site.
  - ii. Review Guidance on Communication Tools and Plans.
  - iii. Review the Public Meeting Policy.
  
- g. Locate the SECY home page.
  - i. Review the functions of the office.
  - ii. Review the purpose of a SECY paper.
  - iii. Review the purpose of staff requirements memoranda.
  
- h. Locate the site for NRC management directives (MDs).
  - i. Find the MD dealing with the NRC Incident Investigation Program; review the purpose of the program.
  - ii. Find the MD dealing with the management of allegations; describe the general policy on disclosure of the identity of an allegor.
  - iii. Find the MD dealing with the NRC Medical Event Assessment Program; review the purpose of the program.



- i. Locate the agency's iLearn Web site.
    - i. Locate the course schedule and catalog and browse the offerings for course availability.
    - ii. Review how to enroll in a course.
    - iii. Locate the Self-Paced Learning area.
    - iv. Find the Web-based allegation management training.
    - v. Review the list of available Web-based learning opportunities.
    - vi. Review the list of other available self-paced learning opportunities.
2. Explore the NRC's external (public) site.
- a. Go to the NRC Library.
    - i. Find the Glossary (Basic References).
    - ii. Find the NRC Inspection Manual (Collection of Documents).
    - iii. Find Regulatory Guides (RGs). Read about their purpose.
    - iv. Locate Generic Communications documents. Review the purpose of each of the types of generic communications documents.
    - v. Find NUREGs. Read about the different types of NUREG documents and determine how you can tell the difference.
    - vi. Find the NRC Regulations contained in 10 CFR. How many volumes comprise Title 10? What parts are applicable to the NRC?
    - vii. Use the search feature and search on "radiation protection." View one of the documents to read about what a recent change to the CFR involved.
    - viii. View a part of the CFR. Look for the information that indicates when the regulation was issued and amended.
    - ix. Find and review the general purposes and procedures associated with the Privacy Act and the Freedom of Information Act (FOIA).
  - b. Go to About NRC. Locate and review the rulemaking process under How We Regulate.
  - c. Go to Nuclear Materials.
    - i. Review the information found under Byproduct Material.
    - ii. Review the information found under Medical, Industrial & Academic Uses Current.

- d. Go to Nuclear Security.
  - i. Review the information found under Radioactive Material Security.
  - ii. Review the information found in the Security Orders and Requirements.
  - iii. Understand what the National Source Tracking System (NSTS) is and what it is used for.

Go to the FSME external Web site on the Agreement States <http://nrc-stp.ornl.gov/> and review the information contained on this site. Go to the Organization of Agreement States Web site <http://www.agreementstates.org/> and the Conference of Radiation Control Program Directors, Inc. <http://www.crcpd.org/> and review these sites.

**DOCUMENTATION:**

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

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-3) Materials Health Physics Inspector Objectivity, Protocol, and Professional Conduct

**PURPOSE:** The purpose of this activity is to acquaint you with the NRC's expectations of an inspector's conduct and protocol. Professionalism is essential to the agency's ability to fulfill its mission of protecting public health and safety and security. Inspector conduct is a vital component of the NRC's credibility as an effective regulator. As an inspector, you will often be representing the agency in interactions with a licensee or applicant. This ISA will help you understand NRC procedures, policies, and expectations related to inspector conduct. This activity also will help you develop the professional conduct you will need to be an effective NRC inspector.

**COMPETENCY  
AREAS:**

INSPECTION  
SELF-MANAGEMENT

- REFERENCES:**
1. MD 7.5, "Ethics Counseling and Training"
  2. IMC 1201, "Conduct of Employees"
  3. Regional guidance related to employee conduct

**EVALUATION  
CRITERIA:**

Upon completion of the tasks in this activity, you will be asked to demonstrate your understanding of proper NRC employee conduct during inspections at licensee facilities by successfully addressing the following:

1. Explain the expectations of NRC employees regarding:
  - a. alcohol and illegal drugs
  - b. official business and personal relationships
  - c. business partnerships with licensees
  - d. work habits and professional demeanor
2. Describe the restrictions regarding the following specific employee activities that could result in a loss of impartiality (or the perception thereof):
  - a. accepting transportation from a licensee
  - b. attending social functions essentially limited to licensee and contractor attendance
  - c. coffee clubs, cafeterias, and credit unions
  - d. property and neighborhood relationships
  - e. community activities
  - f. employment of spouse and children

3. Explain the Office of Government Ethics standards of ethical conduct for the following areas, as applicable to NRC inspectors:
  - a. gifts from outside sources
  - b. gifts between employees
  - c. conflicting financial interests
  - d. impartiality in performing official duties
  - e. seeking other employment
  - f. misuse of power
  - g. outside activities
4. Explain what NRC employees are supposed to do if they receive an allegation of improper action by an NRC staff member or contractor involved in oversight activities.

**TASKS:**

1. Complete the Ethics Overview for Employees and Ethics Training for NRC Employees courses. To access the training, use the NRC's iLearn Web site. Be sure to print the completion record at the end of the online ethics course in the event that completion of the course does not register in the iLearn system.
2. Locate and review the material specifically listed in the reference section of this activity. Although the agency has a code for employee conduct, not all regions or offices have specific guidance in this area. You should closely review the guidance applicable to your position. Some of this guidance may be located in directives, which describe the duties and responsibilities of specific positions.
3. Meet with your regional counsel or other designated ethics expert and discuss applications of ethics to your role as an NRC employee. Demonstrate your understanding of the guidance by explaining how you would address the first three items listed in the evaluation criteria section of this activity.
4. Meet with your immediate supervisor, your regional counsel, or other designated ethics expert to discuss any questions you may have as a result of this activity. Discuss the items listed under the evaluation criteria section of this study activity with your immediate supervisor.

**DOCUMENTATION:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-3.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-4) Safety Culture

**PURPOSE:** The purpose of this activity is to familiarize you with the NRC's safety culture policy statement so that you can effectively communicate to the regulated community the NRC's expectation for regulated entities to establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions. The agency created several tools (e.g., safety culture Web site, safety culture brochure, and case studies) that you should use for providing education and awareness of safety culture to the licensees. As an inspector, you should share key messages from the safety culture policy statement, Web site, brochure, and case studies with licensees at inspection entrance or exit meetings.

**COMPETENCY AREAS:** SELF-MANAGEMENT  
COMMUNICATION

- REFERENCES:**
1. Final Safety Culture Policy Statement Federal Register Notice (76 FR 34773) published on June 14, 2011:  
<http://www.gpo.gov/fdsys/pkg/FR-2011-06-14/pdf/2011-14656.pdf>;  
also found at ADAMS Accession No. ML111650336.
  2. Safety Culture Web site:  
<http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>
  3. "Safety Culture Policy Statement" brochure, ADAMS Accession No. ML11173A052.
  4. "Cultura de Seguridad Declaración de la política," ADAMS Accession No. ML11291A041.
  5. NRC-developed safety culture case studies:  
<http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html#case>
  6. "Safety Culture Case Study User Guide," ADAMS Accession No. ML11195A352
  7. Safety Culture Communication Plan – Revision 1, ADAMS Accession No. ML11278A053

**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's external safety culture activities by successfully addressing the following:

1. Discuss what the NRC's expectations are related to licensees implementing a positive safety culture.
2. Define safety culture and traits.
3. Describe the NRC's nine safety culture traits.
4. Discuss the NRC-developed safety culture case studies.

**TASKS:**

1. Explore information and guidance for the safety culture policy statement, Web site, brochure, and NRC-developed case studies on the identified Web sites or in ADAMS.

**DOCUMENTATION:**

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

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-5) Allegations

**PURPOSE:** The purpose of this activity is to familiarize you with the procedures, guidance, and activities applicable to handling the receipt, processing, review, and closure of allegations. This study activity will help you to interact effectively with individuals bringing concerns to the NRC and to respond appropriately to those concerns.

**COMPETENCY AREAS:** INSPECTION  
SELF-MANAGEMENT  
COMMUNICATION

**REFERENCES:**

1. MD 8.8, "Management of Allegations"
2. FSME Policy and Procedures (P&P) 8-4 "Management of Allegations and Agreement State Performance Concerns" (ADAMS Accession No. ML092540482)
3. NUREG/BR-0313, Revision 1, "Pre-Investigation Alternative Dispute Resolution Program"
4. NRC Form 613, "Disclosure of Allegor's Identity"
5. 10 CFR 30.9, "Completeness and Accuracy of Information"
6. 10 CFR 30.10, "Deliberate Misconduct"
7. Regional guidance on allegations
8. NUREG/BR-0240, "Reporting Safety Concerns to the NRC"
9. Office of Enforcement Web page

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC's allegation process by successfully addressing the following:

1. State the criteria used to evaluate a statement to determine if the information in the statement is a potential allegation.
2. State the information required to be obtained during the receipt of a potential allegation.
3. State the role of the Office Allegation Coordinator (OAC).

4. State the purpose of, and the steps taken, to prepare an Allegation Review Board (ARB) briefing sheet.
5. State the information that should be provided to an ARB.
6. Discuss the criteria used to determine whether there is sufficient information to close an allegation.
7. State the purpose of, and the information needed, to prepare allegation closure documentation.
8. Discuss the proper handling of allegation material.
9. Discuss the NRC policy for protecting the identity of the Concerned Individual.
10. Describe the pre-investigation Alternative Dispute Resolution Program.

**TASKS:**

1. Review the applicable regulations and guidance listed in the reference section.
2. Complete the Web-based Allegation Training module. To access the training, use the NRC's iLearn Web site. Be sure to print the completion record at the end of the online course in the event that completion of the course does not register in the iLearn system.
3. Review the applicable regional or office guidance for allegations.
4. Meet with the OAC and have him or her brief you on the allegation process and the OAC's role in the process.
5. Review closed allegation case files as assigned by your immediate supervisor to:
  - a. Identify how incoming correspondence or information was determined to meet the definition of an allegation and how specific concerns were identified.
  - b. Review the associated ARB briefing sheets, particularly the determination of safety significance and the proposed action plan.
  - c. Review the associated allegation closeout memorandum or closeout letter to understand the rationale and basis for an allegation closeout.



6. Meet with the Office of Investigations (OI) for a briefing on deliberate behavior and willfulness. Discuss where inspection and licensing end and OI activities begin.
7. Discuss with your immediate supervisor or OAC the options available to the NRC to followup on an allegation and the circumstances when each is appropriate.
8. Obtain the inspection results or licensee review information for a concern that has been referred. Discuss the precautions and limitations associated with referrals with your immediate supervisor or the OAC.
9. Attend materials ARB meetings as assigned by your supervisor.
10. Working with your immediate supervisor or OAC:
  - a. Simulate receiving an allegation and complete the required documentation to present the concern at an ARB meeting. Include a discussion of safety significance and regulatory requirements or issues.
  - b. Discuss with your immediate supervisor or OAC a proposed plan to resolve the simulated allegation.
  - c. Obtain the inspection or investigation results and compare the results to the original concerns. Discuss with your immediate supervisor or OAC how the inspection results addressed the concerns. Discuss whether the allegation concerns were substantiated and how you would respond to the allegor.
11. Meet with your immediate supervisor or the OAC to discuss any questions you may have about this activity and to demonstrate that you can meet the evaluation criteria listed above.

**DOCUMENTATION:**

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

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-6) The Enforcement Program

**PURPOSE:** The purpose of this activity is to provide you with an overview of the NRC Enforcement Program. This ISA will assist you in learning and understanding (1) the purpose of the Enforcement Program, (2) the sanctions used in the Enforcement Program, and (3) the methods used in assessing and dispositioning violations. It also will provide you with an understanding of the information and guidance resources available to the staff on the Enforcement Program.

**COMPETENCY AREAS:** REGULATORY FRAMEWORK  
ENFORCEMENT

**REFERENCES:**

1. Enforcement-related information found on the Enforcement Web page of the NRC public Web site, including the NRC enforcement policy, the enforcement manual, the Enforcement Program overview, the enforcement process diagram, and the alternative dispute resolution program
2. Regional policy guide for enforcement

**EVALUATION CRITERIA:**

Upon completion of the tasks in this activity, demonstrate your understanding of the agency's Enforcement Program by successfully completing the following items:

1. State the purpose of the NRC enforcement policy.
2. Describe the legal basis from which the NRC derives its enforcement authority.
3. Identify the burden of proof standard that the NRC uses in enforcement proceedings.
4. Identify the primary sanctions that the NRC uses in the Enforcement Program.
5. State the four issues that the NRC considers to assess the significance of a violation.
6. Define a minor violation and state the policy on documenting and correcting these violations.
7. Define non-cited violation (NCV) and notice of violation (NOV).

8. Define escalated enforcement action.
9. Understand how to use the enforcement process diagram to disposition violations.
10. Describe what predecisional enforcement conferences and management conferences are and why, when, and with whom they are conducted.
11. Describe the Alternative Dispute Resolution (ADR) Program.
12. Discuss the purpose of civil penalties, when the NRC considers issuing them, and how the NRC determines the amount of penalties.
13. Recognize the purpose of the Confirmatory Action Letter (CAL) and when it is used.
14. Recognize the purpose of the different types of Orders and when they are used.
15. Discuss the purpose and use of Enforcement Guidance Memoranda (EGMs).
16. Describe how NRC Form 591 is used. Identify the types of violations that can and cannot be cited on the form.

**TASKS:**

1. Locate the Enforcement Web page on the NRC public Web site. (Hint: Look under How We Regulate.)
2. Read the Enforcement Program overview included on the Enforcement Web page of the NRC external Web site.
3. Read the enforcement process diagram on the Enforcement Web page of the NRC external Web site.
4. Locate the enforcement policy on the Enforcement Web page of the NRC external Web site (look under Enforcement Guidance) and review the table of contents and appendices.
5. Locate the most recent escalated enforcement action for a materials licensee on the Enforcement Web page of the NRC external Web site. Review the transmittal letter and attached NOV.
6. Review your Region's guidance on implementing the enforcement policy.
7. Meet with the enforcement specialist in your Region to discuss the current enforcement guidance.

8. Attend enforcement panels, predecisional enforcement conferences, and ADR sessions as assigned by your immediate supervisor.
9. Meet with your immediate supervisor or the person designated to be your resource for this activity and 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.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-7) The Office of Investigations

**PURPOSE:** The purpose of this activity is to familiarize you with the Office of Investigations (OI). As an inspector, you may be assigned to work with OI to provide technical support. This ISA will help you understand the role of OI, its functions, and your responsibilities if you are assigned to assist OI during the conduct of an investigation.

**COMPETENCY AREAS:** INSPECTION  
REGULATORY FRAMEWORK

**REFERENCES:**

1. MD 9.8, "Organization and Functions, Office of Investigations"
2. Regional OI Staff
3. OI Web page on the NRC external Web site
4. OI Web page on the NRC internal Web site

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your understanding of the purpose and function of OI by successfully addressing the following:

1. State the function of OI.
2. Describe the organizational structure of OI.
3. Describe what your role would be in assisting OI.
4. Describe the authorities of an OI investigator.

**TASKS:**

1. Review MD 9.8.
2. Study the OI Web page and associated organizational charts.
3. Meet with an experienced OI criminal investigator and discuss materials cases investigated by OI. Describe why it is important to investigate staff suspected of wrongdoing.
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-7.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-8) The Role of Agreement States in Radioactive Material Regulation Under Section 274

**PURPOSE:** The purpose of this activity is to familiarize you with the role of the Agreement States in the regulatory framework for radioactive material. During this activity, you will review Section 274 of the Atomic Energy Act and familiarize yourself with areas under which Agreement States assume regulatory responsibility for byproduct, source, and special nuclear material and the NRC discontinues its authority.

This activity will introduce you to the oversight program that the NRC retains over the Agreement State programs and familiarize you with the regional or office points of contact that have been established for Agreement State agencies. This activity will also introduce you to the role of the two State organizations, the Organization of Agreement States (OAS) and the Conference of Radiation Control Program Directors (CRCPD), and their relationship with the NRC.

**COMPETENCY AREA:**

REGULATORY FRAMEWORK

- REFERENCES:**
1. Section 274 of the Atomic Energy Act of 1954, as amended (Note: the Energy Policy Act of 2005, Public Law 109-58, Title VI, section 651(e)(2), 119 Stat. 807 (2005), revised the definition of byproduct material in Section 274b)
  2. 10 CFR Part 150, "Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters under Section 274." (Note the unique requirements for uranium recovery programs in Agreement States.)
  3. "Statement of Principles and Policy for the Agreement State Program; Policy Statement on Adequacy and Compatibility of Agreement State Programs." (62 FR 465517; September 3, 1997)
  4. "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement." (46 FR 7540, January 23, 1981; as amended by policy statements published at 46 FR 36969, July 16, 1981; and 48 FR 33376, July 21, 1983)
  5. MD 5.3, "Agreement State Participation in Working Groups"
  6. MD 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)"
  7. MD 5.7, "Technical Assistance to Agreement States"

8. MD 5.8, "Proposed Section 274b Agreements with States"
9. MD 5.9, "Adequacy and Compatibility of Agreement State Programs"
10. "Topical Discussion of the NRC/Agreement State Program," Organization of Agreement States, October 1994 (see FSME Web site at <http://nrc-stp.ornl.gov/special/topical.pdf>)
11. FSME external public Web site, include the external Web site on the Agreement States at <http://nrc-stp.ornl.gov/>
12. FSME Procedure SA-500, "Jurisdiction Determinations"
13. Organization of Agreement States Web site, <http://www.agreementstates.org/>
14. Conference of Radiation Control Program Directors, Inc., Web site, <http://www.crcpd.org/>

**EVALUATION  
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of the Agreement State program and the NRC oversight program by successfully doing the following:

1. Discuss the purpose of Section 274 of the Atomic Energy Act of 1954, as amended.
2. Discuss the different categories of materials that Agreement States can assume regulatory authority under a 274b agreement between the NRC and the State. Discuss the differences between a limited Agreement and a full Agreement.
3. Discuss the NRC's oversight program conducted under IMPEP.
4. Describe the common and noncommon performance indicators used to evaluate Agreement State program (and NRC program) performance.
5. Describe what the finding of Adequacy and Compatibility means for an Agreement State.
6. Discuss the relationship and roles of :
  - a. NRC and the individual Agreement States
  - b. NRC and the OAS
  - c. NRC and the CRCPD
  - d. OAS and CRCPD.



7. Identify the Regional State Agreement Officers and describe their responsibilities. Describe the organizations within FSME with responsibility for the Agreement State program oversight and interactions.
8. Locate the last annual report to the Commission on the Agreement States' and the NRC's Radioactive Materials Program.

**TASKS:**

1. Locate electronic locations of the above-stated reference material for personal use and future reference. You can find electronic copies of documents on the NRC external Web site in the Electronic Reading Room and FSME external Web site.
2. Review the reference material to gain an understanding of the principles discussed in the evaluation criteria.
3. Read about the Agreement States and their role in the regulation of radioactive materials.
4. Meet with the Regional State Agreement Officer for your Region or a member of the Agreement State Program Branch, FSME, to discuss their roles and interactions with Agreement States.
5. Review and discuss 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-8.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-9) Reciprocity

**PURPOSE:** The purpose of this activity is to familiarize you with the process for granting reciprocity to Agreement State licensees for proposed licensed activities at temporary job sites located in Non-Agreement States, areas of exclusive Federal jurisdiction or offshore waters.

**COMPETENCY AREAS:** COMMUNICATION  
SELF-MANAGEMENT  
REGULATORY FRAMEWORK

**REFERENCES:**

1. 10 CFR 150.20, "Recognition of Agreement State Licenses"
2. IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports"
3. IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20"
4. NUREG-1556, Volume 19, "Consolidated Guidance about Materials Licenses: Guidance for Agreement State Licensees about NRC Form 241 Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction, or Offshore Waters and Guidance for NRC Licensees Proposing to Work in Agreement State Jurisdiction (Reciprocity)"

**EVALUATION CRITERIA:**

At the completion of this activity, you should be able to do the following:

1. Understand the NRC's process for granting reciprocity to Agreement State licensees wishing to conduct licensed activities at temporary job sites located in Non-Agreement States, areas of exclusive Federal jurisdiction, and offshore waters.
2. Identify the regulations that allow an Agreement State licensee to conduct licensed activities in Non-Agreement States, areas of exclusive Federal jurisdiction, or offshore waters.
3. Describe areas of exclusive Federal jurisdiction. Describe an area that may not be under exclusive Federal jurisdiction. Describe how you would make this determination.
4. Discuss why the filing of reciprocity is important to safety.

5. Discuss the regulatory and license requirements the Agreement State licensee is under while working in the Non-Agreement State, area of exclusive Federal jurisdiction, or offshore waters.

**TASKS:**

1. Review the documents referenced above.
2. Meet with an individual experienced in your Region's processing of reciprocity requests and discuss the process. Discuss cases in which reciprocity was not given and why. Discuss the types of licensed activities conducted under reciprocity.
3. Under the supervision of the experienced individual, process reciprocity requests as assigned by your immediate supervisor and describe why you approved the requests or why you did not approve the requests.
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-9.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-10) NRC Interagency Agreements

**PURPOSE:** While performing inspection activities, inspectors identify important issues that could adversely affect health and safety, but are not under the direct regulatory authority of the NRC. Examples include industrial safety issues, transportation questions, and issues involving security. Conversely, other agencies may identify issues of concern to the NRC. To ensure that the proper regulatory authority addresses these items, the NRC has established agreements, called memoranda of understanding (MOUs), with other Federal agencies that outline how these issues should be addressed. The candidate should review ISA-8, "The Role of the Agreement States in Radioactive Material Regulation Under Section 274," for information on the interface between the NRC and the States under Section 274 of the Atomic Energy Act.

This activity will introduce you to the major interagency agreements that the NRC has entered into with Federal agencies and familiarize you with the regional or office points of contact that have been established for other Federal agencies.

**COMPETENCY  
AREA:**

REGULATORY FRAMEWORK

- REFERENCES:**
1. IMC 1007," Interfacing Activities between Regional Offices of NRC and OSHA"
  2. MOU between the NRC and the Occupational Safety and Health Administration, dated October 31, 1988
  3. MOU between the NRC and the Department of Justice, dated December 14, 1988
  4. MOU between the NRC and the Department of Transportation, dated July 2, 1979
  5. MOU between the NRC and the Department of Labor, dated December 3, 1982
  6. Regional or office guidance (if applicable)

**EVALUATION  
CRITERIA:**

At the completion of this activity, you should be able to do the following:

1. Locate the active MOUs used to coordinate between the NRC and other Federal agencies.

2. Explain, in general terms, how the NRC coordinates with other Federal agencies on matters not under the regulatory authority of the NRC.
3. Explain the actions required by an NRC inspector when he or she identifies an occupational health and safety issue at a materials licensee's facility. Be able to state where the guidance for these actions is provided.
4. Identify who in your Region or office is the point of contact for coordinating NRC activities with the following Federal agencies:
  - a. Occupational Safety and Health Administration (OSHA)
  - b. Department of Transportation (DOT)
  - c. Department of Justice (DOJ)
  - d. Department of Labor (DOL)

**NOTE:** The list of Federal agencies that the NRC coordinates with and has interagency agreements with may change. With your immediate supervisor, determine which agencies may interact with your organization.

There may not be an NRC point of contact for each Federal agency in your organization. The point of contact may be in another office.

**TASKS:**

1. Locate electronic versions of these documents on the NRC internal Web site under Office of Enforcement, Enforcement Program, and Enforcement Guidance.
2. Review the MOUs to develop a general understanding of the agreements between the NRC and OSHA, DOT, DOJ and DOL.
3. Identify the designated liaison for those agencies and State agencies in your Region.
4. Meet with a qualified inspector, or the above liaison representative, to discuss licensee facility issues that involved interaction with other Federal agencies. Discuss how the agency addressed the issues in the context of the applicable NRC MOU and office guidance.
5. 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-10.

## Materials Health Physics Inspector Individual Study Activity

- TOPIC:** (ISA-11) Interactions with the Public and the Media
- PURPOSE:** The purpose of this activity is to provide you with an understanding of the importance of communicating with the public and the media in an accurate, clear, and noncomplex manner within the limitations of agency guidance for the release of information to the public. Such communication supports one of the NRC's main objectives of increasing openness. This ISA will provide you information on implementation of the guidance on contacts with the public and the media.
- COMPETENCY AREAS:** COMMUNICATION  
SELF-MANAGEMENT  
REGULATORY FRAMEWORK
- REFERENCES:**
1. NUREG/BR-0215, Revision 2, "Public Involvement in the Nuclear Regulatory Process"
  2. NUREG/BR-0202, "Guidelines for Interviews with the News Media"
  3. NUREG/BR-0224, "Guidelines for Conducting Public Meetings"
  4. NUREG/BR-0297, "NRC Public Meetings"
  5. MD 3.4, "Release of Information to the Public"
  6. MD 3.5, "Attendance at NRC Staff-Sponsored Meetings"
  7. MD 8.11, "Review Process for 10 CFR 2.206 Petitions"
  8. Public meeting checklist available at:  
<http://www.internal.nrc.gov/communications/checklist.html>
  9. Plain Language available at:  
<http://www.internal.nrc.gov/NRC/PLAIN/index.html>
  10. Communication Plan Guidance under "How Do I..." available at  
<http://www.internal.nrc.gov/communications/>
  11. MD 12.6, "NRC Sensitive Unclassified Information Security Program"
  12. NRC Sensitive Unclassified Non-Safeguards Information (SUNSI) Web site:  
<http://www.internal.nrc.gov/ois/divisions/irsd/sunsi/index.html>

13. Regional guidance related to interaction with the public (e.g., conduct of public meetings, response to inquiries from the public, release of information to the public).

**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 proper interaction with the public and news media by successfully addressing the following:

1. Describe what is meant by “Plain Language.” Identify where guidance related to plain language and examples of plain language can be found.
2. Explain what a “2.206 petition” is. Describe how the NRC handles these petitions.
3. Define an NRC-sponsored public meeting.
4. Identify the different meeting categories and their purposes.
5. Identify what type of NRC meetings are generally open to the public. List some that are usually closed to the public.
6. Describe how members of the public can find out about NRC public meetings. Discuss the expectations on timeliness of meeting notices and summaries.
7. Describe the restrictions regarding the release of information to the public including specific types of information not to be released.
8. Discuss the importance of communication with the public and the media. Specifically, effective communication means speaking clearly, accurately, and concisely; using plain English, avoiding technical jargon and acronyms; sticking to areas of expertise; using analogies and examples to help enhance understanding; never getting angry or combative or saying “no comment;” never going “off the record;” never giving opinions on policy; never speculating, or answering “what if” questions; and never guessing when you don’t know the answers.
9. Discuss what a Communication Plan is and how it can affect you. Discuss what a Preliminary Notification (PN) is and when it might be used to report on an event.

10. Explain what information about the security of radioactive materials may be discussed with a member of the media or member of the public.

**NOTE:** You may request copies of the NUREG references used in this activity that cannot be found on the NRC external Web site from your Public Affairs Office.

**TASKS:**

1. Review the references to understand the principles discussed in the evaluation criteria.
2. Visit the NRC's "Plain Language Action Plan" on the internal Web site, including some of the links to resource materials.
3. Visit the OEDO NRC Internal Web site and find the link to the Communication Web site. Review the public meeting policy and checklist.
4. If possible, attend a public meeting and observe the protocols used in the meeting.
5. Meet with an OPA representative and discuss the items listed in the Evaluation Criteria section.
6. Review the SUNSI requirements on the Web site or Management Directive and become familiar with the type of information that may not be shared with the public.

**DOCUMENTATION:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-11



## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-12) Hearings

**PURPOSE:** The purpose of this activity is to become familiar with the hearing process.

**COMPETENCY AREA:** REGULATORY FRAMEWORK

**REFERENCES:**

1. 10 CFR Part 2, "Rules of Practice for Domestic Licensing Procedures and Issuance of Orders," Subpart C, "Rules of General Applicability: Hearing Requests, Petitions to Intervene, Availability of Documents, Selection of Specific Hearing Procedures, Presiding Officer Powers, and General Hearing Management for NRC Adjudicatory Hearings"
2. NRC adjudication Web site

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your general understanding of the types of hearings, public involvement, and the hearing process.

1. Describe the types of hearings.
2. Describe public involvement in hearings.
3. Describe the hearing process.
4. State the types of office activities and processes that have hearings.
5. State the types of hearings, if any, which are required or could, occur that affects your specialty area.

**TASKS:**

1. Review the references to understand the principles discussed in the evaluation criteria.
2. 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-12.

## Materials Health Physics Inspector Individual Study Activity

- TOPIC:** (ISA-13) Proprietary Information and Determinations
- PURPOSE:** The purpose of this activity is to become familiar with requirements and procedures for withholding proprietary information from public disclosure. In addition, all employees need to know how to handle proprietary information.
- COMPETENCY AREA:** INSPECTION  
REGULATORY FRAMEWORK
- REFERENCES:**
1. 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding"
  2. MD 3.4, "Release of Information to the Public"
  3. MD 3.5, "Attendance at NRC Staff-Sponsored Meetings"
  4. MD 12.6, "NRC Sensitive Unclassified Information Security Program"
  5. NRC Sensitive Unclassified Non-Safeguards Information (SUNSI) Website:  
<http://www.internal.nrc.gov/ois/divisions/irsd/sunsi/index.html>

**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 proprietary information and the exceptions for withholding information, as well as an understanding of the NRC's SUNSI requirements.
1. Describe how to handle proprietary material in accordance with Agency requirements and procedures.
  2. Describe the process for handling an incoming request to withhold materials stated to be proprietary from public disclosure.
  3. Describe the process by which an entity may request to meet privately with the NRC staff to discuss proprietary matters.
  4. Describe requirements on timeliness for making a proprietary determination.

5. Describe actions required in the event of an inadvertent release of proprietary information.

**TASKS:**

1. Review the references to understand the principles discussed in the evaluation criteria.
2. 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-13.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-14) The Freedom of Information Act and the Privacy Act

**PURPOSE:** The purpose of this activity is to provide you with an understanding of how the NRC implements the Freedom of Information Act (FOIA) and the Privacy Act while guarding against the inadvertent and unauthorized release of information. While it is very important to communicate with the public, communication must be done within the limitations of agency guidance for the release of information to the public. This supports one of the NRC's main objectives of increasing openness. This study activity will provide you with information on how to implement the guidance on responding to FOIA requests from the public.

**COMPETENCY  
AREAS:**

COMMUNICATION  
SELF-MANAGEMENT  
REGULATORY FRAMEWORK

- REFERENCES:**
1. 10 CFR Part 9, "Public Records"
  2. MD 3.1, "Freedom of Information Act"
  3. MD 3.2, "Privacy Act"
  4. SUNSI Web Site – Privacy Act/Personally Identifiable Information (PII): <http://www.internal.nrc.gov/sunsi/>
  5. MD 3.4, "Release of Information to the Public"
  6. Regional instructions establishing the policy and procedure for processing FOIA requests for agency records

**EVALUATION  
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of the guidance associated with FOIA and the Privacy Act by successfully addressing the following:

1. Discuss the NRC goal of improving public confidence and how implementing the provisions of FOIA and the Privacy Act will contribute toward achieving that goal.
2. Identify the completeness and timeliness requirements for responding to a FOIA request and discuss how important this responsiveness is in building public trust.

3. Discuss the following responsibilities when responding to a FOIA request:
  - a. Provide all records subject to the request in the agency's possession.
  - b. Identify other NRC offices that might have records subject to the FOIA request.
  - c. Screen the records before their release to ensure that withholdable information is properly marked before forwarding to Headquarters.
  - d. Support the decision to withhold information by providing the appropriate exemption and "foreseeable harm" statements.
4. Identify the type of information that should be withheld from release when responding to a FOIA request, including proprietary, predecisional, and privacy information.
5. Describe the legal limitations of what can be released to the public and what must be protected under the Privacy Act.
6. Describe the policy and procedure for processing FOIA requests for agency records.

**TASKS:**

1. Meet with the FOIA Coordinator to discuss the procedure for processing FOIA requests for agency records.
2. Explore the information made available to the public on the NRC Web site and within ADAMS.
3. Complete the annual Personally Identifiable Information (PII) Responsibilities training. To access the training, use the NRC's iLearn Web site. Be sure to print the completion record at the end of the online course in the event that completion of the course does not register in the iLearn system.
4. Review the agency guidance on how to implement FOIA without releasing predecisional information and other information covered under the Privacy Act.
5. 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-14.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-15) 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 or the OAC to discuss any questions that you may have about this activity and to demonstrate that you can meet the evaluation criteria listed above.

**DOCUMENTATION:** Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-15.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-16) 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 decisionmaking. 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 decisionmakers, 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. Draft MD 10.158, "NRC Non-Concurrence Process"
  6. MD 10.159, "The NRC Differing Professional Opinions Program"
  7. Complete the annual No FEAR Act training. Access the training, through the NRC's iLearn Web site. Be sure to print the completion record at the end of the online course in the event that completion of the course does not register in the iLearn system.

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 10.160, draft MD 10.158, and MD 10.159.

**DOCUMENTATION:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-16.



## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-17) 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 purpose of 10 CFR Parts 1, 2, 9, 19, 20, 21, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 73, 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. Your immediate supervisor also may request self-study quizzes from HRTD through iLearn. The quizzes are located under the title, "General Radioactive Materials Overview of Title 10 of the Code of Federal Regulations (H-130S)".

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 1, 2, 9, 19, 20, 21, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 61, 70, 71, 73, 110, 150, 170, and 171.
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.

**NOTE:** After 10 CFR Part 37 “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material,” is published, you should begin to use the new regulations as a reference.

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-17.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-18) Agencywide Documents Access and Management System (ADAMS)

**PURPOSE:** The Agencywide Documents Access and Management System (ADAMS) maintains appropriate NRC unclassified, non-safeguards, official program-related records in a centralized electronic records repository. The NRC's publicly available documents are made available through its external Web site and the ADAMS public libraries. This ISA activity will help you become familiar with ADAMS and provide basic knowledge on how to use the system.

**COMPETENCY AREA:** COMMUNICATION  
INFORMATION TECHNOLOGY  
REGULATORY FRAMEWORK

**REFERENCES:**

1. MD 3.53, "NRC Records and Document Management Program"
2. NUREG/BR-0273, "ADAMS Desk Reference Guide"

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your general understanding of ADAMS by successfully addressing the following:

1. Describe the purpose of ADAMS.
2. Discuss how the agency uses ADAMS.
3. Discuss why it is important for an inspector to be familiar and proficient with ADAMS.
4. Describe the functions of ADAMS (i.e., searches, profiling, ML Accession Nos., and how to add documents)

**TASKS:**

1. Using the iLearn Web site, sign up and complete the ADAMS Overview for NRC Staff.
2. Review MD 3.53, "NRC Records and Document Management Program."
3. Review NUREG/BR-0273, "ADAMS Desk Reference Guide."
4. Access ADAMS through the internal Web site and externally through the Internet to understand the informational limitations for the public.

5. 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-18

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-19) Materials Security

**PURPOSE:** The purpose of this activity is to familiarize you with the security requirements imposed on certain licensees as well as the pre-licensing process. This ISA will not make you a security expert but will provide you with a good understanding of the security requirements the NRC has in place. This activity also will require training on the appropriate handling of sensitive information and information protection.

**COMPETENCY AREA:** INSPECTION

- REFERENCES:**
1. Panoramic and Underwater Irradiator Orders
  2. Inspection Procedure (IP) 87135, "Panoramic and Underwater Irradiator Security Program"
  3. Manufacturers and Distributors (M&D) Orders
  4. IP 87136, "Manufacturing and Distribution (M&D) Security Program"
  5. Transportation of Radioactive Materials Quantities of Concern (RAMQC) Orders
  6. IP 81120, "Inspection Requirement and Guidance for Additional Security Measures for the Physical Protection in Transit for Radioactive Material Quantities of Concern"
  7. Increased Controls (IC) Orders
  8. IC Toolbox and FAQs
  9. Temporary Instruction (TI) 2800/038, "Inspection of the Implementation of the Increased Controls for Licensees Authorized to Possess Risk Significant Radioactive Material"
  10. RCDP-07-006
  11. 10 CFR 30.34(i), 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage"
  12. 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material."
  13. 10 CFR Part 73, "Physical Protection of Plants and Materials"

14. Fingerprinting Orders for access to SGI and unescorted access to radioactive material and Fingerprinting FAQs.
15. NRC Pre-Licensing Guidance
16. NUREG-2155, "Implementation Guidance for 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material."

**NOTE:** The Inspection Procedures and Temporary Instructions used for the materials security inspections are not publicly available.

NRC Licensees have up to 1 year to implement the requirements in 10 CFR Part 37. The requirements in 10 CFR Part 37 will eventually supersede the Orders issued to enhance materials security.

Use the Inspection Procedures and Temporary Instructions referenced above until they have been superseded.

**EVALUATION  
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of the different type of security requirements imposed by the NRC, know the thresholds of when licensees must implement the security requirements, understand the purpose of the Pre-Licensing Guidance, and know how to protect certain types of information including SUNSI and Safeguards Information (SGI):

1. Discuss the proper handling of SGI and SUNSI and how the NRC handles this type of information in ADAMS.
2. Discuss the purposes for and the requirements in the Panoramic and Underwater Irradiator, M&D, RAMQC, IC, and Fingerprinting Orders (for access to SGI and unescorted access to radioactive material) as well as the thresholds at which a licensee must implement the requirements.
3. Discuss 10 CFR 20.1801, 20.1802 and 30.34(i).
4. Discuss 10 CFR Part 37.
5. Describe how the NRC uses its Pre-Licensing Guidance.

**TASKS:**

1. Complete the Information Security (INFOSEC) Awareness course. To access the training, use the NRC's iLearn Web site. Be sure to print the completion record at the end of the online course in the event that completion of the course does not register in the iLearn system.
2. Review the instructions for handling SUNSI material found at: <http://www.internal.nrc.gov/sunsi/>.
3. Review and become familiar with the NRC Pre-Licensing Guidance. Arrange to review an application for a new license under the supervision of a qualified license reviewer.
4. Review the NRC Orders for Panoramic and Underwater Irradiators, M&D, RAMQC, ICs, and Fingerprinting (access to SGI and unescorted access to radioactive material) unless superseded by 10 CFR Part 37.

**NOTE:** As an NRC inspector, you have been determined to be trustworthy and reliable. Access to SGI is limited to persons who are deemed to be trustworthy and reliable with a need to know. Your immediate supervisor will determine if you have a need to know based on your job duties.

6. Gain access to the IC Toolbox (password protected) at <http://nrc-stp.ornl.gov/controls.html>
7. 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-19.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-20) Review of Significant Events at Material Licensees

**PURPOSE:** This ISA will help you become familiar with how the NRC handles events related to radioactive material. You will also become familiar with the NRC's Nuclear Material Events Database (NMED) and the information in the system.

**COMPETENCY AREA:** INSPECTION

- REFERENCES:**
1. NMED Web site: <http://nmed.inl.gov/>
  2. MD 8.1, "Abnormal Occurrence Reporting Procedure"
  3. MD 8.3, "NRC Incident Investigation Program"
  4. MD 8.10, "NRC Medical Event Assessment Program"
  5. NMED Annual Reports  
(Hint: Use the drop down menu on the NMED Web site to access reports)
  6. Review cases of events as directed by your immediate supervisor

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your understanding of how the NRC handles materials events (special inspections, Augmented Inspection Team inspections, and Integrated Investigative Team inspections) and what information is stored in NMED.

1. Discuss the historical events reviewed, as well as the recommendations made, lessons learned, and the changes identified to prevent recurrences.
2. Describe the role of an inspector when responding to events that occur in the Region.
3. Describe the information included in the NMED Annual Reports.
4. Describe and discuss the information stored in NMED and how the NRC uses it.
5. Describe the information included in the Abnormal Occurrence Annual Reports.



**TASKS:**

1. Obtain an NMED login and password by following the instructions at: <http://nmed.inl.gov/>.
2. Review the historical events, recommendations made, lessons learned, and changes identified to prevent recurrence as identified by your immediate supervisor or person designated to be your resource for this activity.
3. Review the most recent Abnormal Occurrence Report.
4. Discuss with your immediate supervisor or person designated to be your resource for this activity the responsibility of an inspector when responding to events that occur in the Region.
5. Review the most recent NMED Annual Report.
6. 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-20.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-21) Augmented Inspection Team, Special Inspection Team, and Incident Inspection Team Activities

**PURPOSE:** The purpose of this activity is to familiarize you with the actions taken by the NRC in response to incidents that do not require activation of the NRC Incident Response Plan. As a fully qualified license reviewer or inspector, you may be assigned to either an augmented inspection team (AIT), a special inspection team (SIT), or an incident inspection team (IIT) inspection activity. This individual study activity will help you understand how the NRC implements this program, what your responsibilities will be if you are assigned to a team, what the differences are between an AIT, SIT, and IIT, and how this program differs from the NRC Incident Response Program.

**COMPETENCY AREA:** INSPECTION

**REFERENCES:**

1. MD 8.3, "NRC Incident Investigation Program"
2. IP 93800, "Augmented Inspection Team"
3. IP 93812, "Special Inspection"
4. IMC 1301 "Response to Radioactive Material Incidents That Do Not Require Activation of the NRC Incident Response Plan"
5. MD 8.10, "NRC's Medical Event Assessment Program"

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC AIT, SIT, and IIT inspection activities by successfully addressing the following:

1. State the purpose of the NRC Incident Investigation Program.
2. Describe an AIT and its purpose.
3. Describe an SIT and its purpose.
4. Describe an IIT and its purpose.
5. Describe how the Incident Investigation Program is different from the Incident Response Program.

**TASKS:**

1. Review MD 8.3, which you can find on the NRC internal Web site.

2. Explore all aspects of the Incident Investigation Program presented on the NRC internal Web site.
3. Review your region or office's guidance on AIT, SIT, and IIT activities.
4. Meet with your immediate supervisor or the person designated to be your resource for this activity to discuss the answers to the questions listed under the evaluation criteria.

**DOCUMENTATION:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-21

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-22) 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 license reviewer or inspector, 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. Regional inspectors meet the incident response coordinator, tour the Incident Response Center, and if possible, observe the Region's response during a drill or event.
5. 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-22.

## Materials Health Physics Inspector Individual Study Activity

- TOPIC:** (ISA-23) Generally Licensed Devices and Materials
- PURPOSE:** This ISA will help you become familiar with how the NRC handles generally licensed devices and materials. You will also become familiar with the generally licensed device program, generally licensee registration, and the General License Tracking System (GLTS).
- COMPETENCY AREA:** INSPECTION
- REFERENCES:**
1. GLTS
  2. General License Registration and Tracking at <http://www.nrc.gov/materials/miau/miau-reg-initiatives/gen-license.html>
  3. 10 CFR Part 31, "General Domestic Licenses for Byproduct Material"; Subpart B to 10 CFR Part 32, "Specific Domestic Licenses To Manufacture or Transfer Certain Materials Containing Byproduct Material"; and 10 CFR 40.22, "Small Quantities of Source Material"
  4. NUREG-1556, Vol. 16, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Licenses Authorizing Distribution to General Licensees"

**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 general license program.
1. Discuss what a general license (GL) is and what types of devices are commonly used as generally licensed devices.
  2. Describe the GL registration program.
  4. Describe and discuss the information stored in GLTS and how it is used by the NRC.

5. Describe at least two other types of materials authorized under a general license.

**TASKS:**

1. Obtain access to GLTS, if you are required to by your immediate supervisor.
2. Review the reference material and be able to address the evaluation criteria.
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:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-23.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-24) 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. Your immediate supervisor will identify those references that you will focus on.

**COMPETENCY AREA:** INSPECTION

- REFERENCES:**
1. IMC 0300, "Announced and Unannounced Inspections"
  2. IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports"
  3. IMC 0620, "Inspection Documents and Records"
  4. IMC 0730, "Generic Communications Regarding Materials and Fuel Cycle Issues"
  5. IMC 1007, "Interfacing Activities Between Regional Offices of NRC and OSHA"
  6. IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20"
  7. IMC 1248, "Formal Qualification Programs in the Federal and State Materials and Environmental Management Programs"
  8. IMC 1301, "Response to Radioactive Material Incidents That Do Not Require Activation of the NRC Incident Response Plan"
  9. IMC 1302, "Followup Actions and Action Levels for Radiation Exposures Associated with Materials Incidents Involving Members of the Public"
  10. IMC 1303, "Requesting Emergency Acceptance of Radioactive Material by the U.S. Department of Energy (DOE)"
  11. IMC 1330, "Response to Transportation Accidents Involving Radioactive Materials"
  12. IMC 1360, "Use of Physicians and Scientific Consultants in the Medical Consultant Program"



13. IMC 2800, "Materials Inspection Program"
14. IMC 2810, "Master Material License Inspection Program"
15. IMC 2815, "Construction and Preoperational Inspection of Panoramic, Wet-Source-Storage Gamma Irradiators"
16. IP 40002, "Inspections to Review Allegations"
17. IP 86740, "Inspection of Transportation Activities"
18. IP 87102, "Maintaining Effluents from Materials Facilities As Low As Is Reasonably Achievable (ALARA)"
19. IP 87103, "Inspection of Materials Licensees Involved in an Incident or Bankruptcy Filing"
20. IP 87104, "Decommissioning Inspection Procedure for Materials Licensees"
21. IP 87121, "Industrial Radiography Programs"
22. IP 87122, "Irradiator Programs"
23. IP 87123, "Well Logging Programs"
24. IP 87124, "Fixed and Portable Gauge Programs"
25. IP 87125, "Materials Processor/Manufacturer Programs"
26. IP 87126, "Industrial/Academic/Research Programs"
27. IP 87127, "Radiopharmacy Programs"
28. IP 87129, "Master Materials Program"
29. IP 87130, "Nuclear Medicine Programs, Written Directive Not Required"
30. IP 87131, "Nuclear Medicine Programs, Written Directive Required"
31. IP 87132, "Brachytherapy Programs"
32. IP 87133, "Medical Gamma Stereotactic Radiosurgery and Teletherapy Programs"

33. IP 87134, "Medical Broad-Scope Programs"
34. IP 87250, "Locating Missing Materials Licensees"
35. IP 92703, "Followup of Confirmatory Action Letters or Orders"
36. IP 93001, "OSHA Interface Activities"
37. Other IMCs or IPs identified for review by your immediate supervisor
38. NUREG-1556, Volumes 1-21
39. NUREG-1757, "Consolidated Decommissioning Guidance"
40. MD 8.10, "NRC Medical Event Assessment Program"

**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-24.

## Materials Health Physics Inspector Individual Study Activity

**TOPIC:** (ISA-25) Web-Based Licensing

**PURPOSE:** The Web-Based Licensing (WBL) System is a web-based software solution developed to manage and support the information and processes related to the licensing of radioactive materials.

**COMPETENCY AREA:** INFORMATION TECHNOLOGY  
REGULATORY FRAMEWORK

**REFERENCES:**

1. WBL web site: <http://www.nrc.gov/security/byproduct/ismpl/wbl.html>
2. WBL Database: <https://wbl.nrc-gateway.gov/>
3. Web-Based Licensing (WBL) User Guide

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your general understanding of WBL by successfully addressing the following:

1. Describe the purpose of WBL.
2. Discuss how the agency uses WBL.
3. Discuss why it is important for an inspector to be familiar and proficient with WBL.
4. Describe the functions of WBL (i.e., searches, adding inspection information, reports)

**TASKS:**

1. Request a WBL account by contacting the WBL help desk at: [WBLHelp.Resource@nrc.gov](mailto:WBLHelp.Resource@nrc.gov)
2. Review the WBL User Guide
3. Become familiar with using WBL
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-25

## Materials Health Physics Inspector On-the-Job Activities

The Appendix B on-the-job training (OJT) activities require you to perform inspection accompaniments, as assigned by your immediate supervisor, under the supervision of qualified inspectors. Typically you will be expected to assist the qualified inspector on the first inspections and then gradually take on more of the responsibility for the inspection until you are leading the inspection. Appendix B 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 inspector if you are familiar with the licensing process. The activities allow you to observe and perform key inspector and 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 inspection 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 inspector and reviewer working with you, can determine.

As you complete inspections and license reviews, you should complete the Inspection Form and the License Review Form located at the end of this Appendix and ask the qualified inspector or license reviewer working with you to provide her or his comments. These forms will be used to track your progress as an inspector and a license reviewer. 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: Materials Health Physics Inspector 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, a qualified inspector, or a qualified license reviewer 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, qualified inspector, or qualified license reviewer for evaluation.

## **Materials Health Physics Inspector On-the-Job Activity**

**TOPIC:** (OJT-1) Industrial Radiography Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform an inspection of an industrial radiography licensee.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. Inspection Procedure (IP) 87121, "Industrial Radiography Programs"
2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. 10 CFR Part 34, "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations"
4. 10 CFR Part 71, "Packaging and Transportation of Radioactive Material"
5. NUREG-1556, Volume 2, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Industrial Radiography Licenses"

### **EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of an industrial radiography licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what types of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on industrial radiography inspections. Temporary jobsite inspections and fixed cell inspections should be included.
2. Help in the inspection preparation activities (i.e., collect background information as necessary, identify any followup that may be required from previous inspections or allegations, and gather inspection equipment).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector but in the presence of a qualified inspector, inspect a variety of industrial radiography licensees.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections for industrial radiography licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-1.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-2) Irradiator Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections on panoramic and self-contained dry storage irradiators.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87122, "Irradiator Programs"
2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. 10 CFR Part 36, "Licenses and Radiation Safety Requirements for Irradiators"
4. NUREG-1556, Vol. 6 "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about 10 CFR Part 36 Irradiator Licenses"

**EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a panoramic or self-contained dry storage irradiator.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
2. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
3. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.



**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on inspection of panoramic irradiators and self-contained dry storage irradiators.
2. Help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor and acting as the lead inspector, but in the presence of the qualified inspector, perform inspections of panoramic irradiators and self-contained dry storage irradiator inspection.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections for irradiator licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-2.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-3) Well Logging Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform an inspection of a well logging licensee.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87123, "Well Logging Programs"
2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. 10 CFR Part 39, "Licenses and Radiation Safety Requirements for Well Logging"
4. 10 CFR Part 71, "Packaging and Transportation of Radioactive Material"
5. NUREG-1556, Volume 14, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Well Logging, Tracer, and Field Flood Study Licenses"

**EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a well logging licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.

7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your inspector, accompany a qualified inspector on well logging inspections in which the licensee uses sealed sources and tracer material.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor and acting as the lead inspector, perform well logging inspections of a variety of licensees.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections for well logging licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-3.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-4) Fixed and Portable Gauge Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of fixed and portable gauges.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87124, "Fixed and Portable Gauge Programs"
2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. NUREG-1556, Volume 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauges"
4. NUREG-1556, Volume 4, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licensees"

**EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of fixed and portable gauge licensees.
2. Describe how the senior inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the senior inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on fixed and portable gauge inspections.

2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your s immediate upervisor, and acting as the lead inspector, perform fixed gauge and portable gauge inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections for fixed and portable gauge licensees.

You should note that you may encounter fixed gauges that are generally licensed while you are conducting inspections of fixed gauges that are specifically licensed. See ISA-21 for information about these gauges and devices.

7. You are responsible for keeping track of the inspections you conduct.
8. Use the appropriate IP to conduct your Inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-4.

## **Materials Health Physics Inspector On-the-Job Activity**

**TOPIC:** (OJT-5) Materials Processor/Manufacturer Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of materials processors and manufacturer programs.

**COMPETENCY AREAS:** INSPECTION

- REFERENCES:**
1. IP 87125, "Materials Processor/Manufacturer Programs"
  2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
  3. 10 CFR 32, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material"
  4. 10 CFR Part 33, "Specific Domestic Licenses of Broad Scope For Byproduct Material"
  5. 10 CFR Part 40, "Domestic Licensing of Source Material"
  6. 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"
  7. NUREG-1556, Volume 12, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Possession Licenses for Manufacturing and Distribution"

**EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a materials processor or manufacturer.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.

6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on materials processor and manufacturer inspections.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform materials processor and manufacturer inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of materials processors and manufacturers.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-5.



## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-6) Industrial/Academic and Research Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of non-medical broad scope programs and limited scope programs. This OJT is used for licensee inspections when other programs do not apply.

**COMPETENCY AREAS:** INSPECTION

- REFERENCES:**
1. IP 87126, "Industrial/Academic/Research Programs"
  2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
  3. 10 CFR Part 33, "Specific Domestic Licenses of Broad Scope for Byproduct Material"
  4. 10 CFR Part 40, "Domestic Licensing of Source Material"
  5. 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"
  6. NUREG-1556, Volume 7, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Academic, Research and Development, and Other Licenses of Limited Scope Including Gas Chromatographs and X-Ray Fluorescence Analyzers"
  7. NUREG-1556, Volume 11, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Licenses of Broad Scope"

**EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a non-medical broad scope licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.

5. Explain why and what type of potential violations were cited by the Qualified inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on non-medical broad scope inspections, limited scope program inspections, and other inspections.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor and acting as the lead inspector, perform non-medical broad scope inspections, limited scope program inspections, and other inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of non-medical broad scope licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the senior inspector in developing the inspection report following the appropriate IMC.

12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-6.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-7) Radiopharmacy Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of radiopharmacy programs.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87127, "Radiopharmacy Programs"
2. 10 CFR 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. 10 CFR 31, "General Domestic Licenses for Byproduct Material"
4. 10 CFR 32, "Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material"
5. 10 CFR 71, "Packaging and Transportation of Radioactive Material"
6. NUREG-1556, Volume 13, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Commercial Radiopharmacy Licenses"
7. NUREG-1556, Volume 21, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Possession Licenses for Production of Radioactive Material Using an Accelerator"

**EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a radiopharmacy licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the senior inspector.

6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on radiopharmacy inspections.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor and acting as the lead inspector, perform radiopharmacy inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of radiopharmacy licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IPs to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-7.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-8) Nuclear Medicine Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of nuclear medicine programs, small hospitals, private practices, and other limited scope medical programs.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87130, "Nuclear Medicine Programs, Written Directive Not Required"
2. IP 87131, "Nuclear Medicine Programs, Written Directive Required"
3. 10 CFR 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
4. 10 CFR 35, "Medical Use of Byproduct Material"
5. NUREG-1556, Volume 9, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Medical Use Licenses"

### **EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting inspections of nuclear medicine program licensees.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on inspections of nuclear medicine programs that do not require a written directive, nuclear medicine programs that do require a written directive, small hospitals, private practices, and other inspections.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues. and open items
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform inspections of nuclear medicine programs that do not require a written directive, programs that require a written directive, small hospitals, private practices, and other types of inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of nuclear medicine licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-8.

### **Materials Health Physics Inspector On-the-Job Activity**

**TOPIC:** (OJT-9) Brachytherapy Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of brachytherapy programs.

**COMPETENCY AREAS:** INSPECTION

- REFERENCES:**
1. IP 87132, "Brachytherapy Programs"
  2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
  3. 10 CFR Part 35, "Medical Use of Byproduct Material"
  4. NUREG-1556, Volume 9, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Medical Use Licenses"

**EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a brachytherapy licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.

7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on manual brachytherapy inspections, remote afterloading brachytherapy device inspections, and other types of brachytherapy inspections.
2. Help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform manual brachytherapy inspections, remote afterloading brachytherapy device inspections, and other types of brachytherapy inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of brachytherapy licensees.

7. You are responsible for keeping track of the inspections you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-9.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-10) Medical Gamma Stereotactic Radiosurgery and Teletherapy Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of medical gamma stereotactic radiosurgery and teletherapy programs.

**COMPETENCY AREAS:** INSPECTION

**REFERENCES:**

1. IP 87133, "Medical Gamma Stereotactic Radiosurgery and Teletherapy Programs"
2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
3. 10 CFR Part 35, "Medical Use of Byproduct Material"
4. NUREG-1556, Volume 9 "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Medical Use Licenses"

### **EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a medical gamma stereotactic radiosurgery and teletherapy licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified Inspector on inspections of gamma knife and teletherapy licensed programs, if available.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any follow-up that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform inspections of gamma knife and teletherapy licensed programs, if available.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections for medical gamma stereotactic radiosurgery and teletherapy licensees.

7. You are responsible for keeping track of the inspections you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-10.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-11) Medical Broad-Scope Programs

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of medical broad-scope programs.

**COMPETENCY AREAS:** INSPECTION

- REFERENCES:**
1. IP 87134, "Medical Broad-Scope Programs"
  2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
  3. 10 CFR Part 33, "Specific Domestic Licenses of Broad Scope for Byproduct Material"
  4. 10 CFR Part 35, "Medical Use of Byproduct Material"
  5. NUREG-1556, Volume 9, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Medical Use Licenses"
  6. NUREG-1556, Volume 11, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Licenses of Broad Scope"

**EVALUATION CRITERIA:**

Upon completion of the tasks, you should be able to do the following:

1. Describe the procedures for conducting an inspection of a medical broad-scope licensee.
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing health and safety inspections.

7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on inspections of medical broad-scope programs.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit Interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform medical broad scope program inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of medical broad-scope licensees.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-11.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-12) Decommissioning (Groups 1 and 2)

**PURPOSE:** The purpose of this activity is to provide you with the skills needed to perform inspections of Group 1 and Group 2 decommissioning licensees. The purpose is also to know the difference between Groups 1, 2, 3, 4, 5, 6 and 7 and to know that the Materials Health Physics Inspector certification only authorizes you to inspect Group 1 and Group 2 facilities.

**COMPETENCY AREAS:** INSPECTION

- REFERENCES:**
1. 10 CFR Part 20, "Standards for Protection Against Radiation"
  2. 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
  3. 10 CFR Part 40, "Domestic Licensing of Source Material"
  4. 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions"
  5. 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"
  6. Appropriate NUREG-1556 series volume for the type of licensed program
  7. NUREG-1757, "Consolidated Decommissioning Guidance"
  8. Sealed Source and Device Registry
  9. 2002 MOU between the EPA and NRC, "Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites"  
<http://www.nrc.gov/reading-rm/doc-collections/news/2002/mou2fin.pdf>

- EVALUATION CRITERIA:** Upon completion of the tasks, you should be able to do the following:
1. Describe the procedures for conducting an inspection of a Group 1 and a Group 2 decommissioning licensee. What is the difference between a Group 1 program, a Group 2 program, and the others?
  2. Describe how the qualified inspector used the other reference documents to conduct the inspection.



3. Describe how this type of licensee is likely to obtain, use, and dispose of licensed radioactive materials.
4. Describe the actions this type of licensee is likely to take to decommission facilities following the cessation of licensed activities.
5. Explain why and what type of potential violations were cited by the qualified inspector.
6. Demonstrate competency in performing Group 1 and Group 2 decommissioning inspections.
7. Given a scenario, be able to describe what actions you would take in response to your observation of unsafe practices by the licensee.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on Group 1 and Group 2 decommissioning inspections.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).
3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform Group 1 and Group 2 decommissioning inspections.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent inspections of Group 1 and Group 2 decommissioning inspections.

7. You are responsible for keeping track of the inspections that you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.

10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-12.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-13) Security Inspection Program

**PURPOSE:** The purpose of this activity is to familiarize you with the security requirements imposed on certain licensees possessing International Atomic Energy Agency Category 1 and Category 2 radioactive materials, and provide you with the opportunity to accompany and conduct security inspections under the supervision of a qualified inspector. The NRC's intent is that security inspections will be integrated with safety inspections; however, the security and safety inspection programs are separated in this qualification journal for training purposes.

**COMPETENCY  
AREAS:**

INSPECTION

- REFERENCES:**
1. Radioactive materials possession license
  2. Appropriate IMCs and IPs
  3. Sealed Source and Device Registry:  
<http://nrc-stp.ornl.gov/ssdr.html>
  4. Previous inspection report
  5. Security Orders
  6. 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material."
  7. Panoramic and Underwater Irradiator Orders
  8. IP 87135, "Panoramic and Underwater Irradiator Security Program"
  9. Manufacturers and Distributors (M&D) Orders
  10. IP 87136, "Manufacturing and Distribution (M&D) Security Program"
  11. Transportation of Radioactive Materials Quantities of Concern (RAMQC) Orders
  12. IP 81120, "Inspection Requirement and Guidance for Additional Security Measures for the Physical Protection in Transit for Radioactive Material Quantities of Concern"
  13. Increased Controls (IC) Orders

14. Temporary Instruction (TI) 2800/038, "Inspection of the Implementation of the Increased Controls for Licensees Authorized to Possess Risk Significant Radioactive Material" –
15. RCPD-07-006 , "Continuing Inspections of Increased Controls Licensees"

**NOTE:** NRC Licensees have up to 1 year to implement the requirements in 10 CFR Part 37. The requirements in 10 CFR Part 37 will eventually supersede the Orders issued to enhance materials security.

IP 81120 has been designated as containing "Safeguards Information–Modified Handling" and is therefore not available to the public.

Use the IPs or TI referenced above until they have been superseded.

**EVALUATION  
CRITERIA:**

Upon completion of this activity, you will be asked to demonstrate your understanding of security inspections by doing the following:

1. Describe the procedures for conducting security inspections
2. Describe how the qualified inspector used the other reference documents to conduct the inspection.
3. Explain why and what type of potential violations were cited by the qualified inspector.
4. Demonstrate competency in performing security inspections.
5. Given a scenario, be able to describe what actions you would take in response to your observation of potential security gaps at a licensee's facility.

**TASKS:**

1. As assigned by your immediate supervisor, accompany a qualified inspector on security inspections of licensees possessing Category 1 or Category 2 radioactive material. If possible, the inspections should include a panoramic or underwater irradiator, manufacturer and distributor (M&D), or of a licensee who ships Category 1 radioactive materials.
2. You will help in the inspection preparation activities (i.e., collect background information as necessary and identify any followup that may be required from previous inspections or allegations).

3. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. Locate and review the IPs that will be used during the inspection.
5. Participate in the entrance and exit interviews with the licensee.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform inspections of licensees possessing Category 1 or Category 2 radioactive materials.

**NOTE:** Your immediate supervisor and accompanying qualified inspector will decide when you have demonstrated sufficient competency to recommend you for interim qualification status to perform independent security inspections licensees possessing Category 1 and Category 2 radioactive materials.

7. You are responsible for keeping track of the inspections you conduct.
8. Use the appropriate IP to conduct your inspection.
9. Become familiar with the scope of the inspection.
10. Become familiar with the documentation of inspection results discussed in IMC 2800.
11. Assist the qualified inspector in developing the inspection report following the appropriate IMC.
12. 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 Form for each inspection performed and obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item OJT-13.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-14) Pre-Licensing Site Visits

**PURPOSE:** The purpose of this activity is to familiarize you with the NRC's Pre-Licensing process and with the use of the Pre-Licensing Guidance. As an inspector, you may on occasion be called upon to perform a pre-licensing visit to an applicant or licensee's facility to confirm the legitimacy of the applicant or licensee and the legitimacy of the applicant or licensee's planned activities.

**COMPETENCY AREA:** LICENSING ACTIVITIES

**REFERENCES:**

1. NRC Pre-Licensing Guidance
2. Inspection Manual Chapter 2800, "Materials Inspection Program"
3. Government Accountability Office (GAO) Report, "Nuclear Security: Actions Taken by NRC to Strengthen Its Licensing Process for Sealed Radioactive Sources Are Not Effective":  
<http://www.gao.gov/new.items/d071038t.pdf>

**EVALUATION CRITERIA:** Upon completion of this activity, you will be asked to demonstrate your understanding of the NRC's Pre-Licensing Guidance and be able to explain its purpose and how it is used as part of the licensing process:

1. Be able to explain how to use the screening criteria.
2. Be able to explain how to use the additional screening criteria.
3. Discuss the purpose of the pre-licensing visit.
4. Demonstrate competency in performing pre-licensing site visits.
5. Be able to explain how you would proceed given information that makes you doubt the intentions of the license applicant.
6. Discuss the GAO's report on nuclear security.

**TASKS:**

1. Review and become familiar with the NRC Pre-Licensing Guidance.
2. Become familiar with the different steps involved in the guidance.
3. Learn where to obtain the necessary information needed for the additional screening criteria.

4. Become familiar with the GAO report and understand why pre-licensing guidance is such an important component to the security of radioactive materials.
5. As assigned by your immediate supervisor, accompany a qualified inspector on pre-licensing visits. The visits should include a new applicant for radioactive materials and a licensee seeking an amendment to expand their possession limits to include Category 1 or Category 2 radioactive materials. Describe what an inspector should look for when conducting a pre-licensing visit.
6. As assigned by your immediate supervisor, and acting as the lead inspector, perform pre-licensing visits. The visits should include a new applicant for radioactive materials and of a licensee seeking an amendment to expand its possession limits to include Category 1 or Category 2 radioactive materials.
7. Describe how an inspector should proceed after receiving information that makes one question the license applicant's intentions.

**DOCUMENTATION:**

Obtain your immediate supervisor's signature in the line item for Qualification Journal Certification Signature Card Item ISA-14.

## Materials Health Physics Inspector On-the-Job Activity

**TOPIC:** (OJT-15) Licensing Case Work

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

**COMPETENCY AREAS:**

LICENSING ACTIVITIES

- REFERENCES:**
1. NUREG-1556 series, "Consolidated Guidance About Materials Licenses"
  2. Sealed Source and Device Registry: <http://nrc-stp.ornl.gov/ssdr.html>
  3. Licensing Toolkits: <http://www.internal.nrc.gov/FSME/OpE/>
  4. National Source Tracking System
  5. WBL

**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 licensing process, distinguish between the different types of licenses issued by the NRC (i.e., broad scope, M&D, industrial radiography), 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. Discuss if any of the licensing actions required the licensee or applicant to implement the security requirements. How did you determine if it needed to implement the requirements?
5. Explain what information can be found in the Sealed Source and Device Registry and how it is helpful to license reviewers.

**TASKS:**

1. Work with a qualified license reviewer to review licensing actions. 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 NUREG-1556 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 License Reviewer, or is currently a qualified Materials License Reviewer, 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. Review NMED for any recent events involving the licensee for any potential generic issues and open items.
4. You are responsible for keeping track of the licensing actions that you have worked on.
5. Visit the Sealed Source and Device Registry at: <http://nrc-stp.ornl.gov/ssdr.html> and follow the instructions on how to obtain a login and password. Familiarize yourself with the registry and the information it contains.
6. Visit the FSME Materials OpE Gateway at: <http://www.internal.nrc.gov/FSME/OpE/> under the Materials Groups tab to familiarize yourself with the different toolkits.

7. 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:** 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-15

## Materials Health Physics Inspector Signature Cards and Certification

<i>Materials Health Physics Inspector's Name:</i> _____	<i>Employee Initials/Date</i>	<i>Immediate Supervisor's Signature/Date</i>
<b>A. Required and Specialized Training (title and course number)</b>		
Training: Inspection Procedures (G-108)		
Training: Root Cause/Incident Investigation Workshop (G-205)		
Training: Site Access Training (H-100) or Site Access Refresher Training (H-101)		
Training: Diagnostic and Therapeutic Nuclear Medicine (H-304)		
Training: Safety Aspects of Industrial Radiography (H-305)		
Training: Transportation of Radioactive Materials (H-308)		
Training: Brachytherapy, Gamma Knife, and Emerging Technologies Course (H-313)		
Training: NRC Materials Control & Security Systems & Principles (S-201)		
Training: Effective Communication for NRC Inspectors		
Training: Gathering Information for Inspectors Through Interviews		
Training: Advanced Health Physics (H-201)		
Training:		
Training:		
Training:		
<b>B. Individual Study Activities</b>		
ISA-1 History and Organization of the U.S. Nuclear Regulatory Commission		
ISA-2 Navigating the NRC's Internal and External Web Sites		
ISA-3 Materials Health Physics Inspector Objectivity, Protocol, and Professional Conduct		
ISA-4 Safety Culture		
ISA-5 Allegations		

<i>Materials Health Physics Inspector's Name:</i> _____	<i>Employee Initials/Date</i>	<i>Immediate Supervisor's Signature/Date</i>
ISA-6 The Enforcement Program		
ISA-7 The Office of Investigations		
ISA-8 The Role of Agreement States in Radioactive Material Regulation Under Section 274		
ISA-9 Reciprocity		
ISA-10 NRC Interagency Agreements		
ISA-11 Interactions with the Public and the Media		
ISA-12 Hearings		
ISA-13 Proprietary Information and Determinations		
ISA-14 The Freedom of Information Act and the Privacy Act		
ISA-15 Generic Communications		
ISA-16 Differing Views Programs		
ISA-17 Overview of Title 10 of the <i>Code of Federal Regulations</i>		
ISA-18 Agencywide Documents Access and Management System (ADAMS)		
ISA-19 Materials Security		
ISA-20 Review of Significant Events at Material Licensees		
ISA-21 Augmented Inspection Team, Special Inspection Team, and Incident Inspection Team Activities		
ISA-22 NRC's Response to an Emergency at a Nuclear Facility		
ISA-23 Generally Licensed Devices and Materials		
ISA-24 NRC Inspection Manual Chapters (IMC), Inspection Procedures (IP), and Other References		
ISA-25 Web-Based Licensing		
<b><i>C. On-the-Job Training Activities</i></b>		
OJT-1 Industrial Radiography Programs		
OJT-2 Irradiator Programs		

<i>Materials Health Physics Inspector's Name:</i> _____	<i>Employee Initials/Date</i>	<i>Immediate Supervisor's Signature/Date</i>
OJT-3 Well Logging Programs		
OJT-4 Fixed and Portable Gauge Programs		
OJT-5 Materials Processor/Manufacturer Programs		
OJT-6 Industrial/Academic and Research Programs		
OJT-7 Radiopharmacy Programs		
OJT-8 Nuclear Medicine Programs		
OJT-9 Brachytherapy Programs		
OJT-10 Medical Gamma Stereotactic Radiosurgery and Teletherapy		
OJT-11 Medical Broad-Scope Programs		
OJT-12 Decommissioning (Groups 1 and 2)		
OJT-13 Security Inspection Program		
OJT-14 Pre-Licensing Site Visits		
OJT-15 Licensing Case Work		

This signature card and certification must be accompanied by the appropriate Form 1, Materials Health Physics Inspector Equivalency Justification, if applicable.

## **Materials Health Physics Inspector Certification**

\_\_\_\_\_  
(name)

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

# **MATERIALS HEALTH PHYSICS INSPECTOR**

Immediate Supervisor Signature \_\_\_\_\_

Date: \_\_\_\_\_

*Form 1: Materials Health Physics Inspector  
Equivalency Justification*

Materials Health Physics Inspector Inspector's Name: _____	<b>Identify equivalent training and experience for which the materials health physics inspector is to be given credit.</b>
---	--

**A. Required and Specialized Training (title and course number)**

Training: Inspection Procedures (G-108)	
Training: Root Cause/Incident Investigation Workshop (G-205)	
Training: Site Access Training (H-100) or Site Access Refresher Training (H-101)	
Training: Diagnostic and Therapeutic Nuclear Medicine (H-304)	
Training: Safety Aspects of Industrial Radiography (H-305)	
Training: Transportation of Radioactive Materials (H-308)	
Training: Brachytherapy, Gamma Knife, and Emerging Technologies Course (H-313)	
Training: NRC Materials Control & Security Systems & Principles (S-201)	
Training: Effective Communication for NRC Inspectors	
Training: Gathering Information for Inspectors Through Interviews	
Training: Advanced Health Physics (H-201)	
Training:	
Training:	
Training:	

**B. Individual Study Activities**

ISA-1 History and Organization of the U.S. Nuclear Regulatory Commission	
ISA-2 Navigating the NRC's Internal and External Web Sites	
ISA-3 Materials Health Physics Inspector Objectivity, Protocol, and Professional Conduct	

Materials Health Physics Inspector Inspector's Name: _____	<b>Identify equivalent training and experience for which the materials health physics inspector is to be given credit.</b>
ISA-4 Safety Culture	
ISA-5 Allegations	
ISA-6 The Enforcement Program	
ISA-7 The Office of Investigations	
ISA-8 The Role of Agreement States in Radioactive Material Regulation Under Section 274	
ISA-9 Reciprocity	
ISA-10 NRC Interagency Agreements	
ISA-11 Interactions with the Public and the Media	
ISA-12 Hearings	
ISA-13 Proprietary Information and Determinations	
ISA-14 The Freedom of Information Act and the Privacy Act	
ISA-15 Generic Communications	
ISA-16 Differing Views Programs	
ISA-17 Overview of Title 10 of the <i>Code of Federal Regulations</i>	
ISA-18 Agencywide Documents Access and Management System (ADAMS)	
ISA-19 Materials Security	
ISA-20 Review of Significant Events at Material Licensees	
ISA-21 Augmented Inspection Team, Special Inspection Team, and Incident Inspection Team Activities	
ISA-22 NRC's Response to an Emergency at a Nuclear Facility	
ISA-23 Generally Licensed Devices and Materials	
ISA-24 NRC Inspection Manual Chapters (IMC), Inspection Procedures (IP), and Other References	
ISA-25 Web-Based Licensing	



Materials Health Physics Inspector Inspector's Name: _____	<i>Identify equivalent training and experience for which the materials health physics inspector is to be given credit.</i>
<b>C. On-the-Job Training Activities</b>	
OJT-1 Industrial Radiography Programs	
OJT-2 Irradiator Programs	
OJT-3 Well Logging Programs	
OJT-4 Fixed and Portable Gauge Programs	
OJT-5 Materials Processor/Manufacturer Programs	
OJT-6 Industrial/Academic and Research Programs	
OJT-7 Radiopharmacy Programs	
OJT-8 Nuclear Medicine Programs	
OJT-9 Brachytherapy Programs	
OJT-10 Medical Gamma Stereotactic Radiosurgery and Teletherapy Programs	
OJT-11 Medical Broad-Scope Programs	
OJT-12 Decommissioning (Groups 1 and 2)	
OJT-13 Security Inspection Program	
OJT-14 Pre-Licensing Site Visits	
OJT-15 Licensing Case Work	

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:



Attachment 1

Revision History Table for IMC 1248, Appendix B

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution Accession Number
N/A	ML112351130 10/26/11 CN 11-022	Revision history sheet added. Combined Appendix A2 with Appendix B2 and renamed as IMC 1246 Appendix E2. Added "Training Requirements" Section from Appendix A2.	N/A	ML112351135
N/A	ML12240A135 04/19/13 CN 13-011	IMC 1248 Appendix B was renamed from IMC 1246 Appendix E2 NMSS manual chapter series. The qualification journal was completely revised to accommodate this change and include specific FSME information (i.e. the security of radioactive materials).	N/A	ML12254B098