



## Office of Nuclear Materials Safety and Safeguards Procedure Approval

### ***Implementation of Management Directive 5.10, “Formal Qualifications for Integrated Materials Performance Evaluation Program Team Members and Team Leaders”***

**SA-111**

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Issue Date: March 22, 2017

Review Date: March 21, 2022

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ML17012A174

**NOTE**

***Any changes to the procedure will be the responsibility of the NMSS Procedure Contact.  
Copies of NMSS procedures are available through the NRC Web site at  
<https://scp.nrc.gov>***



**Procedure Title:**  
***Formal Qualifications for IMPEP Team Members  
and Team Leaders***  
**Procedure Number: SA-111**

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**Issue Date:**  
**03/22/2017**

## **I. INTRODUCTION**

This document describes the procedure for implementing U.S. Nuclear Regulatory Commission (NRC) Management Directive (MD) 5.10, "Formal Qualifications for Integrated Materials Performance Evaluation Program Team Members and Team Leaders." This procedure replaces Handbook 5.10.

## **II. OBJECTIVE**

The training and qualification process is intended to provide Integrated Materials Performance Evaluation Program (IMPEP) team members and team leaders with sufficient knowledge to conduct Agreement State and NRC radioactive materials program reviews that are technically sound and in accordance with NRC policies and procedures. The NRC and Agreement State employees designated as IMPEP team members and team leaders must successfully complete the requirements for individually assigned areas, as listed in Section V. of this procedure. In addition to the requirements of this procedure, other training may be necessary to supplement or enhance team member development. Exemption from specific training requirements may be granted in accordance with Section VII. of this procedure.

To facilitate implementation of this procedure within the Office of Nuclear Material Safety and Safeguards (NMSS), an IMPEP Qualification Cover Sheet; and IMPEP Basic Training Requirements, Indicator-Specific Qualifications, and Team Leader Qualification forms have been prepared (see Appendices A through C, respectively).

## **III. BACKGROUND**

The NRC conducts periodic assessments of NRC regional and Agreement State radioactive materials programs pursuant to MD 5.6, "Integrated Materials Performance Evaluation Program." (For the Agreement State programs this covers radioactive materials for which the Agreement State assumed regulatory authority under their 274b. Agreement with the NRC). The IMPEP review teams are comprised of staff from NMSS and other NRC offices, NRC regional offices, and Agreement States.

## **IV. ROLES AND RESPONSIBILITIES**

A. Director, NMSS and Regional Administrators:

Signs, or designates responsibility for signing, the IMPEP Qualification cover sheet for each NMSS/regional IMPEP participant from their perspective office.

**B. Agreement State Radiation Control Program Managers:**

Ensure that Agreement State personnel participating as IMPEP team members and team leaders, achieve and maintain qualifications in accordance with the guidelines in this procedure.

**C. IMPEP Project Manager:**

1. Develops the IMPEP Team Member and Team Leader Training course modules in consultation with the Technical Training Center.
  - a. The objective of the IMPEP team member training (course ID 58143) is to provide students with a general understanding of the structure of the IMPEP, including review preparation, the on-site review, and post-review activities. The essential elements of the course provides for an understanding of:
    - i. the concept of performance-based reviews;
    - ii. the criteria from MD 5.6 to make a rating determination for assigned indicators and provide input to the review team's overall findings for the program; and
    - iii. policies and procedures for applicable performance indicators.
  - b. The objective of the IMPEP team leader training is to provide potential team leaders with an understanding of how to plan for an effective review. The essential elements of the course provides for understanding of how to:
    - i. plan for IMPEP reviews, including pre-review activities, on-site review, post-review activities, and inspection accompaniments;
    - ii. prepare the written report; and
    - iii. facilitate communication with the team and the program under review.
2. Solicits students from Agreement States programs.
3. Arranges training venue and provides training materials.
4. Consults with NRC regions and offices in determining NRC student roster.
5. Maintains current copies of the IMPEP Qualification cover sheet (Appendix A), IMPEP Basic Training Requirements (Appendix B),

Indicator-Specific Qualification and Team Leader Qualification forms (Appendix C) for all IMPEP team members and team leaders.

6. Ensures that individuals assigned as IMPEP team members, including team leaders, meet the formal qualifications or alternate criteria, as described in this procedure.
7. Tracks each IMPEP-qualified individual's status and need for refresher training, per the policy specified in Section V.L.4. and VI.C. of this procedure.

**D. Immediate Supervisors of IMPEP Team Members:**

1. Ensure that employees confirmed for training attend the training; adjust work schedules, as necessary to attend the training; and only withdraw an employee from a course in the event of a personal or agency emergency.
2. Will coordinate supplemental training for their employees with the IMPEP project manager.

**E. IMPEP Team Members and Team Leaders:**

1. Attend courses for which attendance has been confirmed and devote the effort required to achieve the maximum benefit from the training program.
2. Maintain core qualifications (refresher training) by attending IMPEP Team Member Training and/or participating in an IMPEP review within a 2-year period.
3. In addition to the above, team leaders receive additional training and experience specific to the duties/responsibilities that are required for that position.
4. Using the IMPEP Qualification cover sheet and forms (Appendices A-C), documents relevant course work and experience, as well as alternative criteria provisions, such as equivalency examinations, waivers, grandfathering, or interim qualification described in Section VII. of this procedure, as appropriate, signs the IMPEP Qualification cover sheet, forwards copies of the IMPEP Qualification cover sheet and forms to the IMPEP project manager.
5. Updates the IMPEP Qualification cover sheet, Indicator-Specific Qualification forms and Team Leader Qualification form each time a new indicator qualification or team leader qualification is achieved, signs the

IMPEP Qualification cover sheet and forwards to the IMPEP project manager.

## **V. TRAINING REQUIREMENTS**

### **A. Guidelines**

1. Written examinations will be used for designated courses to evaluate the candidate's understanding of the material. The passing grade for most examinations is 70 percent. However, not all courses have formal examinations. In these cases, satisfactory course completion is determined by attendance and completion of class activities.
2. Individuals who fail examinations may be given the opportunity to review the material through self-study and then be re-examined. If deemed necessary, individuals who fail a course may repeat the course in accordance with established policy of the Human Resources Training and Development, Office of the Chief Human Capital Officer.
3. In all cases, completion of formal training courses sponsored by the NRC will be documented using the iLearn Learning Management System of the NRC.

### **B. IMPEP Basic Training Requirements**

The training described below is required for all IMPEP team members and team leaders.

#### **1. Self-Study**

The team member should be familiar with the following:

- a. NRC MD 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)"
- b. Title 10 of the *Code of Federal Regulations* (10 CFR) Parts 19 and 20
- c. 10 CFR Parts 30-37 and 39
- d. 10 CFR Parts 40, 61, 70 and 71
- e. 10 CFR Part 150

2. Core Training

The IMPEP Team Member Training course as described in Section IV.C.1.a. is the minimum core formal classroom training required for all IMPEP team members and team leaders. Refer to Section VII. of this procedure for exceptions to these requirements.

3. Refresher Training

Refresher training will include IMPEP Team Member Training a minimum of once every 2 years, and other courses as determined by NRC management. Refresher training is not required for IMPEP team members who have participated in an IMPEP review as a team member within 2 years.

4. Professional Education/Experience

IMPEP team members must have a Bachelor's degree or equivalent training or experience in the physical/life sciences, engineering, or other appropriate field. The minimum amount of work experience required for all IMPEP team members is 2 years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in an IMPEP review.

C. Technical Staffing and Training Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Sections V.B. of this procedure, the training described in V.C.2.- 4. is required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Staffing and Training.
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector or license reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs."
- b. NMSS State Agreement (SA)-103 "Reviewing the Common Performance Indicator, Technical Staffing and Training."

3. Supplemental Training

The following course provides additional training beyond that identified as required self-study. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Root Cause/Incident Investigation Workshop (G-205)

4. Professional Experience

The minimum amount of work experience required for all IMPEP team members acting as principal reviewer for the common performance indicator, technical staffing and training, is 2 years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in IMPEP.

D. Status of Materials Inspection Program Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements outlined in Section V.B. of this procedure, the training described in V.D.2.- 4., or equivalent, is required for all IMPEP team members acting as principal reviewer for the common performance indicator, Status of Materials Inspection Program.
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector or license reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," or Agreement State equivalent,

is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NRC IMC 2800, "Materials Inspection Program."
- b. NRC IMC 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."
- c. NRC IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports."
- d. SA-101 "Reviewing the Common Performance Indicator, Status of Materials Inspection Program."

3. Indicator-Specific Training

The following courses provide additional training beyond that identified as self-study. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Inspection Procedures (G-108)
- b. Root Cause/Incident Investigation Workshop (G-205)

4. Professional Experience

The minimum amount of work experience required for all IMPEP team members acting as principal reviewer for the common performance indicator, Status of Materials Inspection Program, is 2 years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in an IMPEP review.



E. Technical Quality of Inspections Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.E.2.- 5., or equivalent, is required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Inspections, and for conducting inspector accompaniments.
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector under NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs" or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator and to conduct inspector accompaniments.

2. Self-Study

The team member should be familiar with the following:

- a. NRC IMC 2800, "Materials Inspection Program."
- b. NRC IMC 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."
- c. NRC IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports."
- d. NRC Inspection Procedure 87100 Series, "Licensed Materials Programs."
- e. All applicable temporary instructions related to materials programs.
- f. SA-102 "Reviewing the Common Performance Indicator, Technical Quality of Inspections."

3. Indicator-Specific Training

The following courses establish minimum formal classroom training requirements for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Inspections.

- a. Inspection Procedures (G-108)
- b. Root Cause/Incident Investigation Workshop (G-205)
- c. Advanced Health Physics (H-201)
- d. Diagnostic and Therapeutic Nuclear Medicine (H-304)
- e. Safety Aspects of Industrial Radiography (H-305)
- f. Transportation of Radioactive Materials (H-308)
- g. Brachytherapy, Gamma Knife and Other Medical Uses (H-313)
- h. NRC Materials Control, Security Systems & Principles (S-201)

4. Supplemental Training

The following courses provide additional training beyond that identified as self-study and indicator-specific training. This additional training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Environmental Monitoring for Radioactivity (H-111)
- b. Air Sampling for Radioactive Materials (H-119)
- c. Characterization and Planning for Decommissioning (H-115)
- d. Respiratory Protection (H-311)
- e. Internal Dosimetry (H-312)
- f. Safety Aspects of Well Logging (H-314)
- g. Irradiator Technology (H-315)

- h. Gathering Information for Inspections through Interviews (Professional Development Center (PDC))
- i. Effective Communication for NRC Inspectors (PDC)

5. Professional Experience

The minimum amount of work experience required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Inspections, is 2 years of experience as an independent inspector within 5 years of participating in IMPEP.

F. Technical Quality of Licensing Actions

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.F.2.- 5. is required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Licensing Actions.
- b. Alternatively, an IMPEP team member that is journal qualified as a license reviewer under NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs," or Agreement State equivalent, is by definition qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NRC IMC 2800, "Materials Inspection Program."
- b. NUREG-1556 Series, "Consolidated Guidance About Materials Licenses."
- c. NRC IMC 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."
- d. NRC Inspection Procedure (IP) 87100 Series, "Licensed Materials Programs."

- e. SA-104 "Reviewing the Common Performance Indicator, Technical Quality of Licensing Actions."

3. Indicator-Specific Training

The following courses establish minimum formal classroom training requirements for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Licensing Actions.

- a. Licensing Practices and Procedures (G-109)
- b. Advanced Health Physics (H-201)
- c. Diagnostic and Therapeutic Nuclear Medicine (H-304)
- d. Safety Aspects of Industrial Radiography (H-305)
- e. Transportation of Radioactive Materials (H-308)
- f. Brachytherapy, Gamma Knife, and Other Medical Uses (H-313)
- g. NRC Materials Control, Security Systems & Principles (S-201)

4. Supplemental Training

The following courses provide additional training beyond that identified as self-study and indicator-specific training. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous work experience.

- a. Inspection Procedures (G-108)
- b. Root Cause/Incident Investigation Workshop (G-205)
- c. Environmental Monitoring for Radioactivity (H-111)
- d. Air Sampling for Radioactive Materials (H-119)
- e. (MARSSIM) Multi-Agency Radiation Survey and Site Investigation (H-121)
- f. Internal Dosimetry (H-312)

- g. Safety Aspects of Well Logging (H-314)
- h. Irradiator Technology (H-315)

5. Professional Experience

The minimum amount of work experience required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of Licensing Actions, is 2 years of experience as an independent license reviewer within 5 years of participating in IMPEP.

G. Technical Quality of Incident and Allegation Activities

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.G.2.- 5. is required for all IMPEP team members acting as principal reviewer for the common performance indicator, Technical Quality of incident and Allegation Activities (Note: Only NRC personnel will review allegations during NRC regional reviews).
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector under NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs," or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NRC MD 8.2, "NRC Incident Response Program."
- b. NRC MD 8.3, "NRC Incident Investigation Program."
- c. NRC IMC 2800, "Materials Inspection Program," including guidance on allegations, references on incident response, and interactions with other agencies.
- d. NUREG-1303, "Incident Investigation Manual."

- e. Handbook on Nuclear Materials Event Reporting in the Agreement States (State reviews).
- f. Nuclear Materials Event Database.
- g. NRC MD 8.8, "Management of Allegations."
- h. SA-105, Reviewing the Common Performance Indicator, Technical Quality of Incident and Allegation Activities."
- i. SA-300 "Reporting Materials Events."
- j. SA-400 "Management of Agreement State Performance Concerns"

3. Indicator-Specific Training

These courses establish minimum formal classroom training requirements for all IMPEP team members acting as principal reviewer of the common performance indicator, Technical Quality of Incident and Allegation Activities.

- a. Inspection Procedures (G-108)
- b. Root Cause/Incident Investigation Workshop (G-205)
- c. Advanced Health Physics (H-201)
- d. Diagnostic and Therapeutic Nuclear Medicine (H-304)
- e. Safety Aspects of Industrial Radiography (H-305)
- f. Transportation of Radioactive Materials (H-308)
- g. Brachytherapy, Gamma Knife, and Other Medical Uses (H-313)

4. Supplemental Training

The following courses provide additional training beyond that identified as self-study and indicator-specific training. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Environmental Monitoring for Radioactivity (H-111)
- b. Air Sampling for Radioactive Materials (H-119)
- c. (MARSSIM) Multi-Agency Radiation Survey and Site Investigation (H-121)
- d. Internal Dosimetry (H-312)
- e. Safety Aspects of Well Logging (H-314)
- f. Irradiator Technology (H-315)
- g. Materials Control, Security Systems & Principles (S-201)

5. Professional Experience

The minimum amount of work experience required for all IMPEP team members completing a review as part of the common performance indicator, Technical Quality of Incident and Allegation Activities, is to have had some involvement with incident and allegation response (e.g., experience in NRC's incident response group in headquarters or a regional office, experience with inspection or assessment of incident and allegation response programs, participation in allegation review boards, or serving as office allegation coordinator) within 5 years of participating in IMPEP.

H. Compatibility Requirements Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.H.2.- 4., is required for all IMPEP team members acting as principal reviewer for the non-common performance indicator, Compatibility Requirements. (Note: Only NRC staff review this indicator).
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector or license reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NRC MD 5.8, "Proposed Section 274b. Agreements with States."
- b. NRC MD 5.9, "Adequacy and Compatibility of Agreement State Programs."
- c. SA-200, "Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements."
- d. SA-201, "Review of State Regulatory Requirements."
- e. SA-107, "Reviewing the Non-Common Performance Indicator, Compatibility Requirements."

3. Supplemental Training

The following course provides additional training beyond that identified as self-study. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous work experience and planned IMPEP activities in specific areas.

- a. Root Cause/Incident Investigation Workshop (G-205)

4. Professional Experience

The minimum amount of work experience required for all IMPEP team members acting as principal reviewer for the non-common performance indicator, Compatibility Requirements, is direct involvement in some aspect of the promulgation of NRC or Agreement State regulations before and within 3 years of participating in IMPEP, or the review of two Agreement State regulations for compatibility before and within 2 years of participating in IMPEP.

I. Sealed Source and Device Evaluation Program Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described below is required for all IMPEP team



members acting as principal reviewer for the non-common performance indicator, Sealed Source and Device (SS&D) Evaluation Program.

- b. Alternatively, an IMPEP team member that is journal qualified as an SS&D reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NUREG-1556, Vol. 3, "Consolidated Guidance About Materials Licenses."
- b. ANSI N538-1979, "Classification of Industrial Ionizing Radiation Gauging Devices."
- c. ANSI N542-1977, "Sealed Radioactive Source Classification."
- d. Regulatory Guide 6.9, "Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices Containing Byproduct Material."
- e. SA-108 "Reviewing the Non-Common Performance Indicator, Sealed Source and Device Evaluation Program."

3. Indicator-Specific Training

The following courses establish minimum formal classroom training requirements for all IMPEP team members completing a full technical review as principal reviewer for the non-common performance indicator, SS&D evaluation program.

- a. Sealed Source and Device Evaluation Workshop (G-116)
- b. Advanced Health Physics (H-201)

4. Supplemental Training

The following courses provide additional training beyond that identified as self-study and indicator-specific training. This training, or equivalent, will be determined by the individual's supervisor in consultation with the

IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Safety Aspects of Industrial Radiography (H-305)
- b. Root Cause/Incident Investigation Workshop (G-205)
- c. Brachytherapy, Gamma Knife, and Other Medical Uses (H-313)
- d. Safety Aspects of Well Logging (H-314)

5. Professional Experience

The minimum amount of work experience required for all IMPEP team members completing a full technical review as principal reviewer for the non-common performance indicator, SS&D evaluation program, is 2 years as an independent SS&D reviewer within 5 years of participating in IMPEP.

J. Low-Level Radioactive Waste Disposal Program Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.J.2.- 4. is required for all IMPEP team members completing a technical review as principal reviewer for the non-common performance indicator, Low-Level Radioactive Waste (LLRW) Disposal Program.
- b. Alternatively, an IMPEP team member that is journal qualified as an inspector or license reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," Appendix E or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. NUREG-1199, "Standard Format & Content of a License Applications for a Low-Level Radioactive Waste Disposal Facility."

- b. NUREG-1200, "Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Waste Disposal Facility."
- c. NUREG-1274, "Review Process for Low-Level Radioactive Waste Disposal License Applications Under Low-Level Radioactive Waste Policy Amendments Act."
- d. NRC IMC 2401, "Near Surface Low-Level Radioactive Waste Disposal Facility Inspection Program."
- e. NUREG 1573, "A Performance Assessment Methodology for Low-Level Radioactive Waste-Disposal Facilities."
- f. 10 CFR Part 61.
- g. SA-109 "Reviewing the Non-Common Performance Indicator, Low-Level Radioactive Waste Disposal Program."

3. Supplemental Training

The following course provides additional training beyond that identified as self-study. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Root Cause/Incident Investigation Workshop (G-205)

4. Professional Experience

The minimum amount of work experience required for all IMPEP team members completing a technical review as principal reviewer for the non-common performance indicator, LLRW disposal program, is 2 years of experience working as an inspector, license reviewer, or as a developer of regulatory programs for ensuring safety of LLRW disposal within 5 years of participating in IMPEP.

K. Uranium Recovery Program Indicator

1. Qualifications

- a. Along with the IMPEP Basic Training Requirements in Section V.B. of this procedure, the training described in V.K.2.- 4. is required for all IMPEP

team members completing a technical review as principal reviewer for the non-common performance indicator, Uranium Recovery Program.

- b. Alternatively, an IMPEP team member that is journal qualified as an inspector or license reviewer under NRC Inspection Manual Chapter (IMC) 1248, "Qualification Programs for Federal and State Material and Environmental Management Programs," Appendix H or Agreement State equivalent, is by definition technically qualified to act as principal reviewer for this indicator.

2. Self-Study

The team member should be familiar with the following:

- a. 10 CFR Part 40, Appendix A.
- b. NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications."
- c. NUREG-1620, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act."
- d. NRC IMC 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program."
- e. NRC IMC 2641, "In-Situ Leach Facilities Inspection Program."
- f. SA-110 "Reviewing the Non-Common Performance Indicator, Uranium Recovery Program."

3. Supplemental Training

The following course provides additional training beyond that identified as required self-study. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous education and work experience.

- a. Root Cause/Incident Investigation Workshop (G-205)

4. Professional Experience

The minimum amount of work experience required for all IMPEP team members completing a full technical review as principal reviewer for the non-common performance indicator, Uranium Recovery Program, is 2 years of experience working as an inspector, license reviewer, or as a developer of regulatory programs for ensuring safety of uranium recovery operations within 5 years of participating in IMPEP.

L. IMPEP Team Leader Training Requirements

Along with the IMPEP Team Leader Training described in Section IV.C.1.b. and IMPEP Basic Training described in Section V.B. of this procedure, the training described below is required for all IMPEP team leaders.

1. Self-Study

The team leader should be familiar with the following:

- a. NRC IMC 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."
- b. NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs."
- c. NRC IMC 2800, "Materials Inspection Program."
- d. NRC MD 8.8, "Management of Allegations."
- e. NRC NUREG 1556 "Consolidated Guidance About Materials Licenses."
- f. SA Procedures 100-110

2. Team Leader-Specific Training

The following courses establish minimum formal classroom training requirements for all IMPEP team leaders.

- a. Inspection Procedures (G-108)

- b. Licensing Practices and Procedures (G-109)
- c. Advanced Health Physics (H-201)

3. Supplemental Training

The following courses provide additional training beyond that identified as self-study and team leader-specific training. This training, or equivalent, will be determined by the individual's supervisor in consultation with the IMPEP project manager and will depend on the individual's previous work experience and education.

- a. Root Cause/Incident Investigation Workshop (G-205)
- b. Diagnostic and Therapeutic Nuclear Medicine (H-304)
- c. Safety Aspects of Industrial Radiography (H-305)
- d. Transportation of Radioactive Materials (H-308)
- e. Brachytherapy, Gamma Knife and Other Medical Uses (H-313)
- f. Safety Aspects of Well Logging (H-314)
- g. Irradiator Technology (H-315)
- h. Effective Communications for NRC Inspectors (PDC)
- i. Leading NRC Work Teams (PDC)
- j. NRC Materials Control, Security Systems & Principles (S-201)

4. Refresher Training

Refresher training will include the IMPEP Team Leader Training, as described in Section IV.C.1.b., a minimum of once every 2 years and other courses as determined by NRC management. Refresher Team Leader Training is not required for IMPEP team leaders who have participated in an IMPEP as a team leader within 2 years.

5. Professional Experience
  - a. Five years of experience with a radiation materials program within 5 years of participating in IMPEP.
  - b. Qualified to act as principal reviewer for at least two performance indicators.
  - c. Participation in three IMPEP reviews as a principal reviewer for any indicator.
  - d. Participation in two IMPEP reviews as team leader-in-training.
  - e. A first-time team leader shall have an experienced qualified team leader as a member of the IMPEP team.

## **VI. DOCUMENTATION OF IMPEP QUALIFICATIONS**

### **A. Initial Qualifications**

1. Each IMPEP team member should complete an IMPEP Qualification Cover Sheet (Appendix A) and specify each indicator that the team member is qualified to act as principal reviewer for or team leader, as appropriate. This cover sheet should be signed by the IMPEP team member and as appropriate, the Director, NMSS; Regional Administrator; Agreement State Program Director; or designee. A copy of the completed cover sheet should be provided to the IMPEP project manager.
2. Each IMPEP team member should complete the IMPEP Basic Training Requirements form (Appendix B). A copy of the completed form should be provided to the IMPEP project manager.
  - a. Any grandfathering, interim qualification, or other alternative means of qualification used (including journal qualification under NRC IMC 1248, Qualification Programs for Federal and State Materials and Environmental Programs, etc.) should be documented in the "Alternative Criteria/Comments" sections provided in the IMPEP Basic Training Requirements form. Attach additional sheets, if necessary.

3. Each IMPEP team member should complete the applicable Indicator Specific Qualification Forms or Team Leader Form (Appendix C). A copy of the completed form should be provided to the IMPEP project manager.

**B. Updating Qualifications**

1. Each time a new indicator qualification is completed or a team leader qualification is completed, the team member should complete the appropriate Appendix C form. A copy of the completed form should be provided to the IMPEP project manager.

2. A new IMPEP Qualification Form cover sheet (Appendix A) should be completed each time an IMPEP participant becomes qualified an additional indicator or as team leader. A copy of the completed form should be provided to the IMPEP project manager.

**C. Refresher Training**

Refresher training will include IMPEP Team Member Training a minimum of once every 2 years, and other courses as determined by NRC management. Refresher training is not required for IMPEP team members who have participated in an IMPEP as a team member within 2 years. The IMPEP project manager will track refresher training for all team members.

**VII. Alternative Provisions**

**A. Equivalency Examinations**

Equivalency examinations to validate specific course work may be taken by IMPEP team members or team leaders who, through prior experience and education, possess sufficient knowledge to otherwise meet the minimum requirements. Requests for equivalency examinations should be made from the individual's supervisor, along with any necessary additional management concurrence, to the Chief Learning Officer, Human Resources Training and Development, Office of the Chief Human Capital Officer. The supervisor should consider the candidate's ability to act as principal reviewer for a specific IMPEP performance indicator without the benefit of the additional knowledge and regulatory perspective that would be gained by attending the course. Use of these examinations is generally expected to be a rare occurrence.



**B. Waivers**

The Director, NMSS (or designee), Regional Administrator (or designee), or Agreement State Radiation Control Program Director (or designee) as appropriate, have the authority to permanently waive any requirement or extend the time period for any requirement listed for an IMPEP team member in this procedure. Justification for the waiver or extension must be documented and maintained in the individual's training file in the iLearn system.

**C. Grandfathering on the Basis of Previous Experience and Training**

An individual may be designated as qualified to independently review any IMPEP performance indicator(s) through grandfathering. A grandfathering qualification process, determined on the basis of previous IMPEP experience, may be applied to any individual who has sufficient experience in Agreement State and/or NRC IMPEP reviews which were conducted before the effective date of this management directive. The individual's immediate supervisor in consultation with the IMPEP project manager should consider the candidate's ability to act as principal reviewer for a specific IMPEP performance indicator without receiving the benefit of the additional training and/or on-the-job experience. The supervisor should notify his or her Branch Chief, Office Director, Regional Administrator, or Agreement State Radiation Control Program Director that the individual is recommended as qualified to conduct independent reviews of specified IMPEP performance indicators through grandfathering. Post qualification training should be considered for all individuals grandfathered as principal reviewers for IMPEP performance indicators. The Director NMSS (or designee), Regional Administrator (or designee), or Agreement State Radiation Control Program Director (or designee) will issue grandfathering qualification. Justification for grandfathering must be documented and maintained in the individual's training file (for NRC staff this will be maintained in the iLearn system).

**D. Interim IMPEP Team Member Qualification**

An IMPEP team member who has not completed all requirements for final qualification under the applicable listing in the procedure may obtain interim qualification to take part in an IMPEP review. The individual's supervisor in consultation with the IMPEP project manager will evaluate the individual's qualifications, identify the performance indicator(s) for which interim qualification is appropriate, and request management approval. A request will then be generated through the individual's management for interim qualification in the identified area(s). The request will be approved by the Director NMSS (or designee) for NMSS staff; by the appropriate Regional Administrator (or designee) for NRC regional staff; or by the appropriate Agreement State

Radiation Control Program Director (or designee) for Agreement State staff. Approval of interim qualification will be documented and a record kept in the individual's training file in the iLearn system.

**E. Post Qualification Training**

This section identifies training requirements beyond those that are required for initial qualification for the experienced IMPEP team member or team leader. For team members who have received certification of initial qualification, additional training is identified in "Supplemental Training" and "Refresher Training," respectively, for each indicator in Section V. as applicable. Refresher training is required as specified and must be taken at the given frequency following initial qualification. This additional training recognizes that IMPEP team leader or team member training does not stop with initial qualification, but that supplemental and refresher training should be made available for experienced team members and team leaders on the basis of need, special circumstances, and the necessity of keeping current with NRC and Agreement State materials programs.

**F. Program Revisions**

This procedure will be periodically revised to reflect the training needs of IMPEP team members and team leaders as determined by changes to the IMPEP review program. When a revision is issued, personnel who qualified under previous requirements shall remain qualified, but must complete any new training requirements in their area within 3 years from the date of the revision, if they wish to retain their eligibility. Personnel in the process of qualifying when a revision is issued, may complete their qualification under their original requirements, but must complete any new formal classroom training requirements in their area within 3 years from the date of the revision, if they wish to retain their eligibility. Exemptions to specific newly revised formal training requirements and extensions to the 3-year time period can be granted using the procedures outlined in Section VII.B. of this procedure.

**VIII. APPENDICES**

Appendix A - IMPEP Qualification Cover Sheet

Appendix B - IMPEP Basic Training Requirements Form

Appendix C - Indicator Specific Qualification Forms and Team Leader Qualification Form

**IX. DEFINITIONS**

**Core Training**

The IMPEP Team Member Training course is the minimum formal classroom experience required for an IMPEP team member or team leader.

**Equivalency Examination**

An examination administered through the Technical Training Center, its contractors, or by management in lieu of specific course attendance.

**Grandfathering**

Qualification of an IMPEP team member to conduct independent Agreement State or NRC program reviews in specific areas on the basis of previous experience and training.

**Indicator-Specific Training**

Minimum formal classroom experience required for an IMPEP team member to perform a review of an IMPEP indicator.

**Interim Qualification**

Qualifications of an IMPEP team member to conduct independent Agreement State or NRC program reviews in specified areas before completion of all IMPEP Training and Qualification Records requirements.

**Refresher Training**

Training designed to update and maintain qualification.

**Self-Study Documents**

Documents to be reviewed by an individual on their own time so that the prospective IMPEP team member has a general understanding of their use and application.

**Supplemental Training**

Additional training beyond that identified as required initial training to enhance a team member's technical expertise. The additional training will be determined by the individual's supervisor in consultation with the IMPEP project manager.

**X. REFERENCES**

Title 10 of the *Code of Federal Regulations* (10 CFR), "Energy:" 10 CFR Parts 19, 20, 30, 31, 32, 34, 35, 36, 37, 39, 40, 61, 70, 71 and 150

Inspection Manual Chapters (IMC):

IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports."

IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating under 10 CFR 150.20, Areas of Exclusive Federal Jurisdiction and Offshore Waters."

IMC 1248, "Qualifications Program for Federal and State Material and Environmental Management Programs."

IMC 2401, "Near-Surface Low-Level Radioactive Waste Disposal Facility Inspection Program."

IMC 2602, "Decommissioning Oversight and Inspection Program for Fuel Cycle Facilities and Materials Licensees."

IMC 2641, "In-Situ Leach Facilities Inspection Program."

IMC 2800, "Materials Inspection Program."

IMC 2801, "Uranium Mill 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program."

NRC Inspection Procedures (IP):

IP 87100 Series, "Licensed Materials Programs."

Management Directives (MD):

MD 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)."

MD 5.8, "Proposed 274b Agreements with States."

MD 5.9, "Adequacy and Compatibility of Agreement State Programs."

MD 8.2, "NRC Incident Response Program."

MD 8.3, "NRC Incident Investigation Program."

MD 8.8, "Management of Allegations."

NMSS State Agreement (SA) Procedures:

NMSS SA-101 "Reviewing the Common Performance Indicator, Status of Materials Inspection Program"

NMSS SA-102 "Reviewing the Common Performance Indicator, Technical Quality of Inspections"

NMSS SA-103 "Reviewing the Common Performance Indicator, Technical Staffing and Training"

NMSS SA-104 "Reviewing the Common Performance Indicator, Technical Quality of Licensing Actions"

NMSS SA-105 "Reviewing the Common Performance Indicator, Technical Quality of Incident and Allegation Activities"

NMSS SA-107 "Reviewing the Non-Common Performance Indicator, Compatibility Requirements"

NMSS SA-108 "Reviewing the Non-Common Performance Indicator, Sealed Source and Device Evaluation Program"

NMSS SA-109 "Reviewing the Non-Common Performance Indicator, Low-Level Radioactive Waste Disposal Program"

NMSS SA-110 "Reviewing the Non-Common Performance Indicator, Uranium Recovery Program"

NMSS SA-200, "Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements."

NMSS SA-201, "Review of State Regulatory Requirements."

NMSS SA-300, "Reporting Material Events"

NMSS SA-400, "Management of Allegations"

**NUREGs:**

NUREG-1199, "Standard Format & Content of a License Applications for a Low-Level Radioactive Waste Disposal Facility."

NUREG-1200, "Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Waste Disposal Facility."

NUREG-1303, "Incident Investigation Manual."

NUREG-1274, "Review Process for Low-Level Radioactive Waste Disposal License Applications Under Low-Level Radioactive Waste Policy Amendments Act."

NUREG-1556 series.

NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications."

NUREG 1573, "A Performance Assessment Methodology for Low-Level Radioactive Waste-Disposal Facilities."

NUREG-1620, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act."

**Regulatory Guide:**

Regulatory Guide 6.9, "Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices Containing Byproduct Material."

**ANSI PUBLICATIONS:**

ANSI N538-1979, "Classification of Industrial Ionizing Radiation Gauging Devices."

ANSI N542-1977, "Sealed Radioactive Source Classification."

**XI. ADAMS REFERENCE DOCUMENTS**

For knowledge management purposes, all previous revisions of this procedure, as well as associated correspondence with stakeholders, that have been entered into the NRC's Agencywide Document Access Management System are listed below.

<b>No.</b>	<b>Date</b>	<b>Document Title/Description</b>	<b>Accession Number</b>
1	12/1/00	STP Procedure SA-111	ML003781945
2	8/31/06	STP-06-079, Opportunity to Comment on Draft Revisions to STP Procedure SA-111	ML062440119
3	8/31/06	Draft STP Procedure SA-111	ML062440126
4	1/5/99	MD and Handbook 5.10	<a href="#">ML041410573</a>

Appendix A



IMPEP QUALIFICATION COVER SHEET

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*IMPEP Team Member.*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Title*

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*Office Director, Regional Administrator, or Agreement State Program Director (or Designee):*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Printed Name*

\_\_\_\_\_  
*Title*

QUALIFICATION AUTHORIZATION  
(Please check all applicable boxes)

COMMON PERFORMANCE INDICATORS:

N

NON-COMMON PERFORMANCE INDICATORS:

- Technical Staffing and Training
- Status of Materials Inspection Program
- Technical Quality of Inspections
- Technical Quality of Licensing Actions
- Technical Quality of Incident and Allegation Activities

- Compatibility Requirements
- Sealed Source and Device Evaluation Program
- Low-Level Radioactive Waste Disposal Program
- Uranium Recovery Program

TEAM LEADER

**NOTE**

***Based on the guidelines established in Management Directive 5.10, Formal Qualifications for IMPEP Team Members, the supervisor above verifies that this IMPEP team member is fully qualified to act as principal reviewer and/or team leader, as noted.***



## Appendix B

### IMPEP BASIC TRAINING REQUIREMENTS (for all IMPEP Team Members)

STAFF NAME:

<i>A. CORE TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
IMPEP Team Member Training		
<i>B. REFRESHER TRAINING</i>		COURSE/IMPEP DATE
IMPEP Team Member Training or participation in IMPEP every 2 years		
<i>C. SELF-STUDY</i>	COMPLETED? (Y/N)	
NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)"		
Title 10 of the <i>Code of Federal Regulations</i> (CFR) 19 and 20		
10 CFR 30-37 and 39		
10 CFR 40, 61, 70 and 71		
10 CFR 150		
<i>D. PROFESSIONAL EDUCATION/EXPERIENCE</i>		
Bachelor's Degree or equivalent training or experience in the physical/life sciences, engineering, or other appropriate field		
Two years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in an IMPEP review		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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**APPENDIX C**

**INDICATOR-SPECIFIC QUALIFICATION FORMS AND TEAM LEADER QUALIFICATION FORM**

## TECHNICAL STAFFING AND TRAINING

STAFF NAME:
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<i>A. SELF-STUDY</i>	COMPLETED? (Y/N)	COMPLETION DATE
NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs"		
<i>B. SUPPLEMENTAL TRAINING</i>		
Root Cause/Incident Investigation Workshop (G-205)		
		COMPLETED? (Y/N)
<i>C. PROFESSIONAL EXPERIENCE</i> - 2 years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in an IMPEP review.		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## STATUS OF MATERIALS INSPECTION PROGRAM

STAFF NAME:

<i>A. INDICATOR-SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Inspection Procedures (G-108)		
Root Cause/Incident Investigation Workshop (G-205)		
<i>B. SELF-STUDY</i>		COMPLETED? (Y/N)
NRC IMC 2800, "Materials Inspection Program"		
NRC Inspection Manual Chapter 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."		
SA-101 "Reviewing the Common Performance Indicator, Status of Materials Inspection Program."		
<i>C. PROFESSIONAL EXPERIENCE</i> - 2 years of experience with a radioactive materials program (including Agreement State program, fuel cycle, radioactive waste, or sealed source and device evaluation) within 5 years of participating in an IMPEP review.		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## TECHNICAL QUALITY OF INSPECTIONS

STAFF NAME:
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<i>A. INDICATOR-SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Inspection Procedures (G-108)		
Root Cause/Incident Investigation Workshop (G-205)		
NRC Materials Control, Security Systems & Principles (S-201)		
Advanced Health Physics (H-201)		
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 (H-313)		
<i>B. SUPPLEMENTAL TRAINING</i>		
Environmental Monitoring for Radioactivity (H-111)		
Air Sampling for Radioactive Materials (H-119)		
Characterization and Planning for Decommissioning (H-115)		
Respiratory Protection (H-311)		
Internal Dosimetry (H-312)		
Safety Aspects of Well Logging (H-314)		
Irradiator Technology (H-315)		
<i>C. SELF-STUDY</i>		COMPLETED? (Y/N)

NRC IMC 2800, "Materials Inspection Program"	
NRC Inspection Manual Chapter 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20"	
NRC IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports"	
NRC Inspection Procedure 87100 Series, "License Materials Programs"	
All applicable Temporary Instructions related to materials programs	
SA-102 "Reviewing the Common Performance Indicator, Technical Quality of Inspections."	
<i>D. PROFESSIONAL EXPERIENCE - 2 years as an independent inspector within 5 years of participating in IMPEP</i>	

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## TECHNICAL QUALITY OF LICENSING ACTIONS

STAFF NAME:
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<i>A. INDICATOR-SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Licensing Practices and Procedures (G-109)		
Advanced Health Physics (H-201)		
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 (H-313)		
NRC Materials Control, Security Systems & Principles (S-201)		
<i>B. SUPPLEMENTAL TRAINING</i>		
Inspection Procedures (G-108)		
Root Cause/Incident Investigation Workshop (G-205)		
Air Sampling for Radioactive Materials (H-119)		
Environmental Monitoring for Radioactivity (H-111)		
(MARSSIM) Multi-Agency Radiation Survey and Site Investigation (H-121)		
Internal Dosimetry (H-312)		
Safety Aspects of Well Logging (H-314)		
Irradiator Technology (H-315)		

<i>C. SELF-STUDY</i>	COMPLETED? (Y/N)
NRC IMC 2800, "Materials Inspection Program"	
NRC Inspection Manual Chapter 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20"	
NRC Inspection Procedure 87100 Series, "License Materials Programs"	
NRC NUREG-1556 Series, "Consolidated Guidance About Materials Licenses"	
SA-104 "Reviewing the Common Performance Indicator, Technical Quality of Licensing Actions."	
<i>D. PROFESSIONAL EXPERIENCE - 2 years as an independent license reviewer within 5 years of participating in IMPEP</i>	

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## TECHNICAL QUALITY OF INCIDENT AND ALLEGATION ACTIVITIES

STAFF NAME:

<i>A. INDICATOR-SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Inspection Procedures (G-108)		
Root Cause/Incident Investigation Workshop (G-205)		
Advanced Health Physics (H-201)		
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 (H-313)		
<i>B. SUPPLEMENTAL TRAINING</i>		
Environmental Monitoring for Radioactivity (H-111)		
Air Sampling for Radioactive Materials (H-119)		
(MARSSIM) Multi-Agency Radiation Survey and Site Investigation (H-121)		
Internal Dosimetry (H-312)		
Safety Aspects of Well Logging (H-314)		
Irradiator Technology (H-315)		
<i>C. SELF-STUDY</i>		COMPLETED? (Y/N)
NRC MD 8.2, "NRC Incident Response Program"		
NRC MD 8.3, "NRC Incident Investigation Program"		
NRC IMC 2800, "Materials Inspection Program"		

NUREG-1303, "Incident Investigation Manual"	
Handbook on Nuclear Materials Event Reporting in the Agreement States	
NRC MD 8.8, "Management of Allegations"	
Nuclear Materials Event Database (NMED)	
<i>D. PROFESSIONAL EXPERIENCE - some involvement with incident response within 5 years of participating in IMPEP</i>	

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## COMPATIBILITY REQUIREMENTS

STAFF NAME:
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<i>A. SUPPLEMENTAL TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Root Cause/Incident Investigation Workshop (G-205)		
<i>B. SELF-STUDY</i>		COMPLETED? (Y/N)
NRC MD 5.8, "Proposed Section 274b Agreements With States"		
NRC MD 5.9, "Adequacy and Compatibility of Agreement State Programs"		
SA-200, "Compatibility Categories and Health & Safety Identification for NRC Regulations and Other Program Elements"		
SA-201, "Review of State Regulatory Requirements"		
<i>C. PROFESSIONAL EXPERIENCE - direct involvement in some aspect of the promulgation of NRC or Agreement State regulations before and within 3 years of participating in IMPEP or the review of two Agreement State regulations for compatibility before and within 2 years of participating in IMPEP</i>		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## SEALED SOURCE AND DEVICE EVALUATION PROGRAM

STAFF NAME:

<i>A. INDICATOR-SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Sealed Source and Device Evaluation Workshop (G-116)		
Advanced Health Physics (H-201)		
<i>B. SUPPLEMENTAL TRAINING</i>		
Root Cause/Incident Investigation Workshop (G-205)		
Safety Aspects of Industrial Radiography (H-305)		
Brachytherapy, Gamma Knife and Emerging Technologies (H-313)		
Safety Aspects of Well Logging (H-314)		
<i>C. SELF-STUDY</i>	COMPLETED? (Y/N)	
NUREG-1556, Vol. 3, "Consolidated Guidance About Materials Licenses"		
ANSI N538-1979, "Classification of Industrial Ionizing Radiation Gauging Devices"		
ANSI N542-1977, "Sealed Radioactive Source Classification"		
Regulatory Guide 6.9, "Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices Containing Byproduct Material"		
SA-108 "Reviewing the Non-Common Performance Indicator, Sealed Source and Device Evaluation Program."		
<i>D. PROFESSIONAL EXPERIENCE - 2 years' experience as an independent SS&amp;D reviewer within 5 years of participating in IMPEP</i>		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## LOW-LEVEL RADIOACTIVE WASTE DISPOSAL PROGRAM

STAFF NAME:

<i>A. SUPPLEMENTAL TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Root Cause/Incident Investigation Workshop (G-205)		
<i>B. SELF-STUDY</i>		COMPLETED? (Y/N)
NUREG-1199, "Standard Format & Content of a License Application for a Low-Level Radioactive Waste Disposal Facility"		
NUREG-1200, "Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Disposal Facility"		
NUREG-1274, "Review Process for Low-Level Radioactive Waste Disposal License Applications Under Low-Level Radioactive Waste Policy Amendments Act"		
NRC IMC 2401, "Near Surface Low-Level Radioactive Waste Disposal Facility Inspection Program"		
NUREG 1573, "A Performance Assessment Methodology for Low-Level Radioactive Waste-Disposal Facilities"		
10 CFR Part 61		
SA-109 "Reviewing the Non-Common Performance Indicator, Low-Level Radioactive Waste Disposal Program."		
<i>C. PROFESSIONAL EXPERIENCE - 2 years working as an inspector, license reviewer, or as a developer of regulatory programs for ensuring safety of LLRW disposal within 5 years of participating in IMPEP</i>		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## URANIUM RECOVERY PROGRAM

STAFF NAME:

<i>A. SUPPLEMENTAL TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Root Cause/Incident Investigation Workshop (G-205)		
<i>B. SELF-STUDY</i>		COMPLETED? (Y/N)
10 CFR Part 40, Appendix A		
NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications"		
NUREG-1620, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites Under Title II of the Uranium Mill Tailings Radiation Control Act"		
NRC IMC 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program"		
NRC IMC 2641, "In Situ Leach Facilities Inspection Program"		
SA-110 "Reviewing the Non-Common Performance Indicator, Uranium Recovery Program."		
<i>C. PROFESSIONAL EXPERIENCE - 2 years working as an inspector, license reviewer, or as a developer of regulatory programs for ensuring safety of uranium recovery operations within 5 years of participating in IMPEP</i>		

Alternative Qualifications/Comments (attach additional sheets as necessary):

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## TEAM LEADER QUALIFICATIONS

STAFF NAME:
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<i>A. TEAM LEADER SPECIFIC TRAINING</i>	COMPLETED? (Y/N)	COURSE DATE
Inspection Procedures (G-108)		
Licensing Practices and Procedures (G-109)		
Advanced Health Physics (H-201)		
<i>B. SUPPLEMENTAL TRAINING</i>		
Root Cause/Incident Investigation Workshop (G-205)		
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 (H-313)		
Safety Aspects of Well Logging (H-314)		
Irradiator Technology (H-315)		
NRC Materials Control, Security Systems & Principles (S-201)		
Leading NRC Work Teams (PDC)		
Effective Communications for NRC Inspectors (PDC)		

<i>C. SELF-STUDY</i>	COMPLETED? (Y/N)
NRC Inspection Manual Chapter 1220, "Processing of NRC Form 241, 'Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction and Offshore Waters,' and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20"	
NRC IMC 1248, "Qualification Programs for Federal and State Materials and Environmental Programs"	
NRC IMC 2800, "Materials Inspection Program"	
NRC MD 8.8, "Management of Allegations"	
NRC NUREG 1556 "Consolidated Guidance About Materials Licenses."	
SA Procedures 100-110	
<i>D. PROFESSIONAL EXPERIENCE</i>	
5 years' experience with a radioactive materials program before and within 10 years of participating in IMPEP	
Qualified to act as principal reviewer for at least one performance indicator	
Participation in at least one IMPEP review as a principal reviewer for any indicator	
Participation as Team Leader In Training for at least one IMPEP Review	

Alternative Qualifications/Comments (attach additional sheets as necessary):

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