



**Office of Nuclear Material Safety and Safeguards State
Procedure Approval**

***Reviewing the Common Performance Indicator,
Technical Staffing and Training***

SA-103

Issue Date:

Review Date:

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NOTE

Any changes to the procedure will be the responsibility of the NMSS Procedure Contact. Copies of the state procedures will be available through the NRC website.



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I. INTRODUCTION

This document describes the objectives and procedure for conducting reviews of the U.S. Nuclear Regulatory Commission (NRC) and Agreement State radioactive materials programs using the common performance indicator, Technical Staffing and Training [NRC Management Directive (MD) 5.6, *Integrated Materials Performance Evaluation Program (IMPEP)*].

II. OBJECTIVES

- A. To confirm that a well-conceived and balanced staffing strategy has been implemented throughout the review period.
- B. To verify that qualification criteria for new technical staff are established and are being followed or that qualification criteria will be established if new staff members are hired.
- C. To ensure that any vacancies, especially senior-level positions, are filled in a timely manner.
- D. To confirm that there is a balance in staffing the licensing and inspection programs.
- E. To determine that management is committed to training and staff qualification.
- F. To establish that those individuals performing materials licensing and inspection activities are adequately qualified and trained to perform their duties.
- G. To verify that license reviewers and inspectors are trained and qualified in a reasonable period of time.
- H. To evaluate whether the materials personnel training and qualification program is being implemented effectively since the last IMPEP review. For NRC, these requirements are documented in NRC Inspection Manual Chapter (IMC) 1248, *Formal Qualification Programs for Nuclear Material Safety and Safeguards*. Agreement States should have requirements that are equivalent to IMC 1248, or implement the NRC/Organization of Agreement States (OAS) Training Working Group Recommendations for Agreement State Training Programs (SP 97-087).

III. BACKGROUND

The ability to conduct effective licensing, inspection, and incident and allegation response programs is largely dependent on having a sufficient number of experienced, knowledgeable, qualified, and well-trained technical personnel. For this performance indicator, review team members will conduct in-depth reviews of the program's ability to recruit and retain qualified staff and maintain staffing levels sufficient for the number and types of licensees within their jurisdiction. In addition, the reviewer will conduct interviews and examine the training and qualification documentation of technical staff and managers to ensure that they are properly trained and qualified for the type(s) of licensed programs for which they are given inspection and licensing authority.

IV. ROLES AND RESPONSIBILITIES

A. Team Leader:

Determines which team member(s) is assigned as the principal reviewer for this performance indicator.

B. Principal Reviewer:

Reviews and evaluates the quality of technical staffing and training programs and determines whether staffing levels and expertise are sufficient for the number and types of licensees.

V. GUIDANCE

A. Scope

1. This procedure applies only to technical and managerial personnel in the nuclear materials safety program. This primarily refers to staff conducting byproduct, source, and special nuclear materials licensing; inspection; incident and allegations response; and regulation/guidance development activities.
2. This procedure specifically excludes personnel involved only with non-Atomic Energy Act licensees.

B. Evaluation Procedures

The principal reviewer should refer to MD 5.6, for specific evaluation criteria.

C. Review Guidelines

1. Prior to the on-site review, the principal reviewer should review the responses provided by the Region or State to the Technical Staffing and Training questions in the IMPEP questionnaire, so that issues can be identified and questions formulated for the on-site review.
2. During the on-site review, training and qualification records and job descriptions should be reviewed and evaluated by the principal reviewer.
3. Staff members hired since the last IMPEP review are candidates for evaluation of the effectiveness of the program's training and qualification process.

D. Review Details

To determine the qualitative and quantitative effectiveness of the program's ability to hire, train, and retain qualified staff, the principal reviewer should evaluate and document the following:

1. Number of full-time equivalent (FTE) staff dedicated to the materials program. (Include in the FTE both the number and type of full-time and part-time positions allocated to the program.)
2. Adequacy of the FTE to properly implement the regulatory program.
3. Impact of any positions that are currently unfilled, or which were unfilled for a significant amount of time during the review period.
4. Timeliness and effectiveness of the Region's or State's actions to adjust workloads, or to recruit or reassign personnel to fill vacancies.
5. Probable cause and impact of any observed differences between authorized and current staffing levels, as well as any impacts likely to occur due to recent changes in approved staffing levels or workload.
6. Whether a proper balance exists among FTE assigned to licensing, inspection, incident and allegation response, and regulation/guidance development activities.
7. Whether minimum qualification and training program requirements for personnel in the program are documented. (See Appendix A for a sample training program description.)
8. Whether the status of each technical staff member's training and qualification record is complete and current.

9. Identification of training courses used by an Agreement State that could be attended by NRC or other Agreement State personnel. By including the list of good practices posted on the NRC/FSME website, this information will be shared with other Agreement States and NRC for their consideration in program planning.
10. Any deficiencies, or potential shortcomings in NRC or State training courses (content or availability), even though these findings may not be appropriate for inclusion in the assessment for this performance indicator. The review team should discuss these findings at the Management Review Board (MRB) meeting if the findings are not included in the assessment for this performance indicator. A representative from the NRC's Office of Human Resources may be asked to participate on the MRB if issues involving NRC or State training courses will be discussed.
11. Any trends or developments over the entire period since the last review, not merely those present at the time of the review. This should also include any budgetary impacts affecting the State.
12. The membership and statutory responsibilities for State radiation oversight boards and the board's actions during the review period for the potential for conflicts of interest.

E. Discussion of Findings with NRC Region or Agreement State

The reviewer should follow the guidance given in FSME Procedure SA-100, *Implementation of the Integrated Materials Performance Evaluation Program (IMPEP)*, for discussion of technical findings with staff, supervisors, and management.

VI. APPENDIXES

- A. Sample Documented Training and Qualification Program Description
- B. Frequently Asked Questions

VII. REFERENCES

1. NRC Management Directive 5.6, *Integrated Materials Performance Evaluation Program (IMPEP) ML041410578*.
2. NRC Management Directive 5.10, *Formal Qualifications for Integrated Materials Performance Evaluation Program (IMPEP) Team Members ML041410573*.
3. NRC Inspection Manual Chapter 1248, *Formal Qualification Programs for Nuclear Material Safety and Safeguards ML12240A129*.

4. NRC/OAS Training Working Group Recommendations for Agreement State Training Programs (SP 97-087) MLXXXXXXXXXX.
5. NMSS Procedure SA-100, *Implementation of the Integrated Materials Performance Evaluation Program (IMPEP)*.

VII. 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 (ADAMS) are listed below.

No	Date	Document Title/Description	Accession Number
1	8/XX/16	STC-16-XX, Opportunity to Comment on SA-103	ML
2	8/XX/16	SA-103, RCPI, Technical Staffing and Training	ML
3	12/17/97	SP-097-087, NRC/OAS Training Working Group Final Report	ML
4	8/XX/16	STP Procedure SA-103 (redline/strikeout)	ML
5	8/XX/16	SA-103, Comment Resolution Document	ML

Appendix A

Sample Documented Training and Qualification Program Description

The NRC/Organization of Agreement States (OAS) Training Working Group Recommendations for Agreement State Training Programs states Agreement States should document a training program that, at a minimum, contains a statement of policy, minimum qualifications for staff training, and supervisory responsibility for ensuring this policy is implemented. Below is a sample training policy statement and a sample staff training qualifications form with supervisory sign-off adapted from that report.

SAMPLE AGREEMENT STATE TRAINING POLICY STATEMENT

We will ensure that staff who perform licensing and inspection functions for all types of licenses issued by the state is qualified to do so.

An individual will not serve as lead inspector or senior license reviewer for a licensed facility unless the individual has demonstrated competency in the program training areas applicable to that type of license.

The program training areas and essential elements addressed in each program training area are described in [*specify the exact NRC or State Guidance documents or attach documents*].

An individual can be qualified to perform licensing and inspection functions for certain types of licenses while working towards full qualification for all types of licenses issued by the state. When an individual has demonstrated competency in a particular training area to management, their training record will be updated to document their competency.

Refresher training will be provided, as needed. The provision of refresher training recognizes that inspector and reviewer training does not stop with initial qualification, but that training should be made available for experienced inspectors and reviewers on the basis of need, special circumstances, and the necessity of keeping current with inspection and licensing programs changes and changes in technology.

SAMPLE AGREEMENT STATE TRAINING QUALIFICATION FORM

Name:

Date of Hire:

TRAINING AREAS	Date Completed	Initials/Signature	Comments
BASIC TRAINING			
Essentials ¹ of Health Physics			

¹Note, the terms Aessentials@ and Aelements@ include on-the-job training and

Overall program orientation

Review of State Regulations

Review of Regulatory Guides &
reference material

Essentials of Inspection

Essentials of Licensing

Essentials of Transportation

Essentials of Allegation Response

SPECIALIZED TRAINING

Elements of Nuclear Medicine

Elements of Medical Therapy

Elements of Industrial. Radiography

Elements of Transportation

Elements of Well Logging

Elements of Pool Irradiators

Elements of Environmental
Monitoring

Elements of Security

ADVANCED TRAINING

Advanced Health Physics

Elements of Investigations

supervisory accompaniments, as appropriate. See the NRC/Organization of Agreement States (OAS) Training Working Group Recommendations for Agreement State Training Programs for additional details.

Appendix B

Frequently Asked Questions

Q1: Is it necessary to have a documented training and qualification program if the State has not hired any new staff in 10 years and the program manager states that all staff members are qualified?

A: No, it is not necessary to have a documented training and qualification program as described in this scenario. The documented training and qualification program is just one piece of information the team should use in determining the rating for this indicator. Handbook 5.6 indicates that the State should have established qualification criteria for hiring technical staff and should have additional training and experience requirements based on the types of licenses the program issues or inspects. As noted in this procedure, the team should review the documented training and qualification program description including qualification requirements for personnel in the program. Management approval of a staff member's qualification should be in writing. If there is no documented qualifications for staff (including management sign-off), the review team should make a recommendation that the State documents its training and qualification program.

If there is no documented training and qualification program, the review team should examine the overall performance of the State in conducting the program activities to determine if the lack of a documented training and qualifications program has impacted the program performance. Although the review team may not identify any performance issues because of the expertise of the current staff, establishing a documented basic program will provide the basis for continued performance by the Agreement State program in the future. (See Appendix A and the NRC/OAS Training Working Group Recommendations for Agreement State Training Programs for guidance.)

Q2: What constitutes an acceptable written training and qualification program?

A: An acceptable written training and qualification program could consist of a simple policy statement, description of the basic essentials and training elements based on the types of State licensees, and a training qualification form for each individual (see Appendix A). Additional information as to the details of the basic essentials and training elements for specialized training can be found in the NRC/OAS Training Working Group Recommendations for Agreement State Training Programs.

Q3: Does the documented training program description need to be as extensive as NRC's IMC 1248?

A: No, the documented training program description does not need to be as extensive as NRC's IMC 1248. (See above response.)

Q4: Is there a staffing formula for States to use? Does the NRC still recommend the 1.0-1.5 technical full-time equivalents (FTE) per 100 licenses?

A: No. Prior to the implementation of IMPEP, NRC used prescriptive indicators to evaluate Agreement State Programs, including the formula 1.0-1.5 technical FTE per 100 licenses for staffing levels. Use of this formula was discontinued because it did not adequately account for licensee complexity and was not a reliable indicator of performance. NRC does not recommend a specific staffing formula. Instead, NRC recommends that each program examine their individual workloads, types of licensees and licensing actions (numbers and complexity), and inspection activities necessary to protect public health and safety in order to determine necessary staffing levels. Additional staff efforts for regulation promulgation should be considered in the program's evaluation. Although there is no explicit criterion for new Agreement States in the 1981 Policy Statement on Discontinuance of NRC Regulatory Authority and Assumption by States; NMSS Procedure SA-700, *Processing an Agreement*, states that there must be at least two qualified technical staff in the program.

A State may find Appendix B of SA-700 helpful in evaluating staffing levels in their program. This is a worksheet traditionally used in the initial implementation of a new Agreement State program; however, the same worksheet may be used by an existing Agreement State program to evaluate the adequacy of the number of FTE in their program.

Q5: Does a State need more than one individual trained for a particular technical area or modality?

A: Although it is not necessary to have more than one individual trained for a particular technical area or modality, we believe it is prudent to have at least two individuals with expertise in each technical area or modality. For States with smaller numbers of licensees, the potential exists for the State to lose the capability to conduct certain aspects of their program with a single staff member's departure. For larger States, it will depend on the workload in a particular technical area or modality and whether it is more efficient and effective for the State to train several or all individuals for the particular technical area or modality under review.

Q6: If an individual has taken a specific training course, such as radiography, is that individual qualified to conduct radiography inspections?

A: Attendance at a given training course is not the sole requirement for competency in a given area, whether licensing or inspection. The State's training and qualification program should define what the State considers to be a demonstration of competency applicable to the licensing or inspection of a specific activity. In many cases, mentoring by more experienced staff or completion of a specific number of licensing actions or inspections with senior staff members may be part of the necessary training to establish competency. The Program Director or designee should approve, in writing, individual staff qualifications.

Q7: If the State has hired a qualified nuclear medicine technologist as an inspector, does that individual need to take the nuclear medicine course to become qualified to conduct nuclear medicine inspections?

A: As noted above, attendance at a given training course is not the sole requirement for competency. In this situation, the State management may find the individual is qualified in the elements of the nuclear medicine programs, but as a new employee, needs additional training in the essentials of inspection techniques. Management may sign the individual's training documentation as complete for nuclear medicine based on the individual's previous work experience and after successfully completing training in inspection techniques. If the individual's work experience was limited to diagnostic nuclear medicine, additional training in therapeutic nuclear medicine and brachytherapy may be needed to be a fully qualified inspector for all medical applications.

Q8: Does a license reviewer or inspector need to be qualified in all areas, before they can perform work independently?

A: No. If a license reviewer or inspector has established competency in a given area, such as gauge licensing/inspection, the supervisor can approve independent work in that one area. The license reviewer/inspector may work independently while continuing to pursue competency in additional areas. NRC staff members are often referred to as having interim qualifications, which allows independent work in a limited area of demonstrated competency.

Q9: During difficult economic periods States may be forced to issue a freeze on funding for the hiring of program staff and travel expenses for staff training. What should the team member review and consider in determining whether the State's performance for this indicator is satisfactory?

A: The reviewer can determine whether the State's program for filling vacancies has been impacted by examining the results of the other indicators such as *Status of Materials Inspection Program*, *Technical Quality of Inspections* and *Technical Quality of Licensing Actions* to assess whether the number of overdue core (Priority 1, 2, and 3 and initial) inspections is satisfactory and whether inspection reports and licensing actions are being completed and issued within the required timeframe. For training sufficiency, in addition to examining training records, the reviewer should interview inspection and licensing staff to determine depth of knowledge. The reviewer should also consult with the team member(s) who performed inspection accompaniments to get feedback on the inspectors' performances. In any case, the State should have a plan in place to address this issue (e.g., providing in-house training, requesting to host NRC training, using managers or trained staff from another Division or Agreement State to perform inspections during these periods, etc.)

Q10: If a State uses a "train-the-trainer" approach to staff training to minimize staff time out of the office, what documentation should be available for the team to review?

A: A "train-the-trainer" approach, where one individual attends a training class and then

presents the information to the staff in an in-house training session, is perfectly acceptable given the restrictions on out-of-State travel that some States are facing. If a State chooses to use a “train-the-trainer” approach, the State should document the date(s) that the in-house training was offered and retain a summary of the scope and objectives of the training or a copy of the agenda. The effectiveness of the training will be evaluated through the review of quality of casework and interviews with staff.