Appendix D-1

Maintaining Qualifications

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Introduction

This appendix consolidates post-qualification and refresher training requirements needed to maintain full inspector qualification for each inspector type. Unless otherwise noted in this appendix, this training should not be taken until an individual has completed inspector qualification and obtained supervisor's approval.

Unless specifically stated in this appendix, new post-qualification training requirements are not applicable to an individual who is qualified prior to the effective date of the revision to IMC 1245 adding the new requirement. However, previously qualified inspectors should consider expanding their technical knowledge by completing these and other courses listed in Appendix D based on previous work experience and planned work activities in specific technical areas. The requirements to maintain full qualification for each inspector type follow.

Post-qualification and Refresher Training Requirements

Appendix C-1, Reactor Operations Inspector

1. Post-qualification requirements - For inspectors fully qualified after the effective date of these courses, attendance at these courses is a post-qualification requirement to be completed by the end of the second full year of full qualification:

• Root Cause Report Evaluation (G-204) (effective date 1/10/2008) |
• Probabilistic Risk Assessment Technology and Regulatory Perspectives (P-111) (effective date 9/2/2005)
• *Vendor-specific training course—Operations inspectors must complete vendor-specific training for assigned site. If reassigned to a new site after initial qualification, the inspector must complete the vendor-specific training for the new assignment. This training should be completed as soon as feasible after reassignment and must be completed within 2 years of assignment to a new site*. *[C-1]*

2. Refresher training requirements

• Technical refresher and simulator/emergency operating procedures (EOP) refresher are both required every 3 years.
• If you are qualified in more than one reactor type, you must complete either the boiling-water reactor (BWR) or pressurized-water reactor (PWR) refresher training every 3 years. Inspectors should alternate between PWR and BWR technologies.

Appendix C-2, Reactor Engineering Inspector

1. Post-qualification requirements - For inspectors fully qualified after the effective date of these courses, attendance at these courses is a post-qualification requirement to be completed by the end of the second full year of full qualification:

• Root Cause Report Evaluation (G-204) (effective date 1/10/2008) |
• Probabilistic Risk Assessment Technology and Regulatory Perspectives (P-111) (effective date 9/2/2005)

2. Refresher training requirements - One of the following is required once every 3 years.

• BWR or PWR systems refresher OR
• simulator refresher OR
• emergency operating procedure refresher
If you completed your qualification before the U.S. Nuclear Regulatory Commission (NRC) added the requirement for a full series, you should alternate between R-104B and R-104P. You should coordinate your selection with your supervisor.

Appendix C-3, Health Physics Inspector

1. Post-qualification requirements- To be completed within three years of initial qualification

• Whole Body Counting/Internal Dosimetry (H-312) (effective date 9/14/1999)

2. Required Refresher Training - To be completed every three years

• Health Physics Topical Review Course (H-401)

Appendix C-4, Reactor Security Inspector

1. Post-qualification requirements - None

2. Required Refresher Training - If the inspector cannot attend the required course listed below because of circumstances beyond his/her control, an alternative acceptable course may be substituted with the documented permission of the inspector's Branch Chief and the Branch Chief of the Reactor Security Oversight Branch (NSIR/DSO/RSOB).

• Security Technology Refresher (S-402) every 2 years

Appendix C-5, Research and Test Reactor Inspector

1. Post-qualification requirements - All Research and Test Reactor (RTR) inspectors are required to participate in on-going post-qualification training to maintain and enhance their knowledge and skills. This training should include elements of both continuing and refresher training as defined in IMC 1245-03. Each inspector shall annually review with their supervisor post-qualification accomplishments in the past year and goals for the coming year to assure that the intent of IMC 1245-06, "Post-Qualification Training," has been met. As a minimum, each inspector shall attend one day of continuing training in each six month interval.

Specific forms of post-qualification training may include:
• Attending classes beyond the core requirements (E.g., see course catalog)
• Attending courses that have been taken previously or refresher courses on the subject matter

• Assisting in the presentation of course R-106, Research and Test Reactor Technology
• Reading relevant RTR license amendments, incident reports, new regulatory requirements, etc.
• Participating in information exchange forums with counterparts (E.g., RTR inspectors, RTR PMs, RTR operator license examiners, other NRC groups, and TRTR)
• Performing a joint inspection with another RTR inspector with an emphasis on exchanging good practices and techniques.

2. Refresher training requirements – None

Appendix C-6, Emergency Preparedness Inspector

1. Post Qualification requirements - Attendance at courses will be determined by your supervisor and is dependent on your previous work experience and planned inspection activities (e.g., lead EP inspector, RAC member).

• (H-303) - Radiological Emergency Response and Operations
• (H-306) - Radiological Emergency Planning

2. Required Refresher Training **–** None

Appendix C-7, Fire Protection Inspector

1. Post-Qualification Training - All fire protection inspectors are required to participate in on-going post-qualification training to maintain and enhance their knowledge and skills. This training should include elements of both continuing and refresher training as defined in IMC 1245-03. Each inspector shall annually review with their supervisor post-qualification accomplishments in the past year and goals for the coming year to assure that the intent of IMC 1245-06, "Post-Qualification Training," has been met. As a minimum, each inspector shall attend one day of continuing training in each six month interval.

Suggestions for post-qualification training may include but are not limited to:

• Attending classes beyond the core requirements (e.g., see course catalog or Appendix D-3)
• Attending courses that have been taken previously or refresher courses on the subject matter
• Assisting in the presentation of fire protection training

Participating in information exchange forums with counterparts (e.g., regional fire protection workshops)

2. Refresher training requirements – None

Appendix C-8, Vendor Inspector

1. Post-qualification requirements – None

2. Refresher training requirements – None

Appendix C-9, Senior Reactor Analyst

1. Post-qualification requirements – None

2. Required Refresher Training **-** The Advanced Risk Assessment Topics course and either the BWR or PWR refresher training shall be completed every three years. It is recommended that inspector certification for SRAs be alternated between PWR and BWR technologies. When taking the refresher courses, it is also recommended that the simulator and technology review courses be scheduled as close together as possible. Other training needs should be evaluated based on the needs of the individual. For example, although a qualified SRA had previously received training on SAPHIRE, it may be appropriate to retake the course, assuming the SAPHIRE code had changed sufficiently to warrant the need for additional training. In addition, qualified SRAs should seek training opportunities that may be offered via the NRC Form 368 process.

SRAs are encouraged to attend a professional meeting at least every three years. The meetings may be either NRC or industry sponsored and should address PRA applications or specific aspects of PRA (e.g., human reliability assessment, common cause failure analysis, fault tree/event tree modeling, risk communications, etc.,) that are of interest to the SRA and important for continued development in the SRA's understanding of risk technology.

Appendix C-10, Operator Licensing Examiner

1. Post-qualification requirements – None

2. Refresher training requirements – To maintain their technical proficiency, OL Examiners must complete the technical refresher and simulator/EOP refresher courses every three years. The due date will be determined based on the individual's Full Inspector Qualification or OL Examiner qualification date, whichever came first. Examiners who are certified on more than one reactor technology should alternate their attendance among the vendors for which they are certified during successive refresher training periods. However, the regional OL BC should consider and assign additional technical refresher training based on the examiner's job performance.

To maintain their examination skills, OL Examiners shall complete some form of examination techniques refresher training every three years. The options include: (1) attending the nominal 2-day refresher training class presented by the NRR OL Program Office in conjunction with the national operator licensing examiners' training conference (which are generally scheduled every 18 months); (2) attending an examination techniques refresher course scheduled by special arrangement with the NRR OL Program Office; or (3) making arrangements with the NRR OL Program Office to attend either the written

examination or the operating test techniques portion of the Initial Examination Techniques (G-107) Course.

To keep up-to-date on changes in the OL program, examiners should attend every national operator licensing examiners' training conference and other special continuing training program presented by the NRR OL Program Office.

The Regional OL BCs shall oversee their examiners' field activities in accordance with Inspection Manual Chapter 0102, "Oversight and Objectivity of Inspectors and Examiners at Reactor Facilities."

Every OL Examiner should administer at least one complete operating test every calendar year in order to maintain proficiency. Any examiner who fails to maintain proficiency must be audited (as described above) by a certified Chief Examiner (preferably the regional OL BC) during the satisfactory administration of a complete operating test on any reactor technology in which the examiner has maintained technical proficiency (by attending the required refresher training discussed above). Any examiner who has been inactive for more than 24 months shall also complete some form of examination techniques refresher training, as discussed above, in order to reactivate their OL Examiner certification.

Examiners assigned to the OL program office and certified regional OL BCs are generally exempt from the proficiency and observation requirements by virtue of their day-to-day involvement in program development and oversight, including the administration of operating test audits and/or teaching the operating test portion of the Examination Techniques (G-107) Course. The Chief of the NRR Operator Licensing Section will determine the need for proficiency testing and observations on a case-by-case basis.

Appendix C-11, Security Risk Analyst

1. Post-qualification requirements – None

2. Required Refresher Training **-** If the analyst cannot attend one or more of the required courses listed below because of circumstances beyond his/her control, an alternative acceptable course may be substituted with the documented permission of the inspector's Branch Chief and the Branch Chief of the Reactor Security Oversight Branch (NSIR/DSO/STSB).

- Security Technology Refresher (S-402) every 2 years.

- Technical refresher and simulator/emergency operating procedures (EOP) refresher are both required every 3 years.

- If you are qualified in more than one reactor type, you must complete either the boiling-water reactor (BWR) or pressurized-water reactor (PWR) refresher training every 3 years. Inspectors should alternate between PWR and BWR technologies.

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
C-1 Reference: OIG-05-A-06 Recommendation 7 (ML052520204)	9/02/05	Adds a requirement that operations inspectors take the appropriate vendor-specific training within 2 years of assignment to a new reactor type.	None	N/A	N/A
N/A	07/08/09 CN-09 017	Updates inspector titles, adds two new training standards (C-7 and C-11), and consolidates post-qualification and refresher training requirements needed to maintain full inspector qualification for each inspector type.	None	N/A	N/A