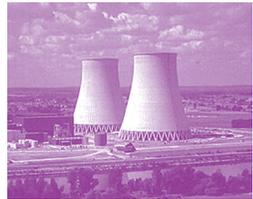


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# Region I Entry Level Inspector Qualification Program



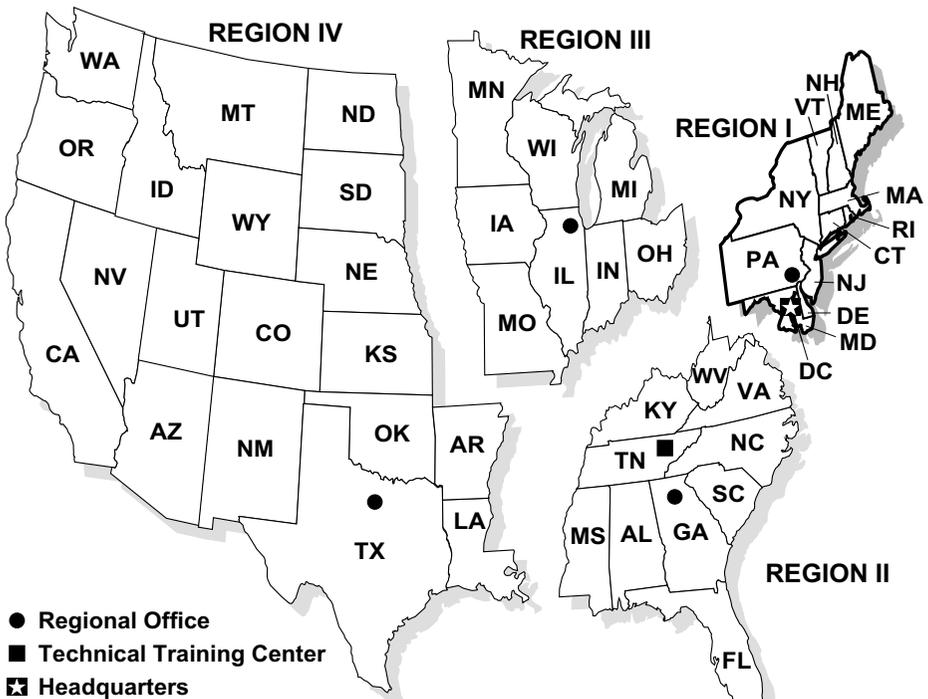
U.S. Nuclear Regulatory Commission



# The U.S. Nuclear Regulatory Commission

The mission of the U.S. Nuclear Regulatory Commission (NRC) is to ensure adequate protection of the public health and safety, to promote the common defense and security, and to protect the environment in the use of nuclear materials in the United States. The Commission has five members, appointed by the President and confirmed by the Senate, one of whom is designated by the President to serve as Chairman.

The NRC is responsible for licensing and regulating nuclear facilities and materials and for conducting research to support the licensing and regulatory process, as mandated by the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and the Nuclear Nonproliferation Act of 1978, and in accordance with the National Environmental Policy Act of 1969, as amended, and other applicable statutes.



Note: Alaska and Hawaii are included in Region IV.

The NRC is also responsible for protecting and safeguarding materials and plants in the interest of national security and assuring conformity with antitrust laws.

The agency sets standards and makes rules; does technical reviews and studies; holds public hearings; issues authorizations, permits, and licenses; inspects and investigates NRC-licensed nuclear facilities and enforces sanctions for violations; evaluates the operating experience of nuclear facilities; and conducts confirmatory research. These responsibilities are shared by NRC's three principal offices (the so-called program offices): the Office of Nuclear Reactor Regulation, the Office of Nuclear Material Safety and Safeguards, and the Office of Nuclear Regulatory Research. The Executive Director of Operations, reporting to the Commission, directs the program offices.

The NRC Headquarters is located in Rockville, Md., in the metropolitan Washington, D.C., area. NRC Regional Offices, in Pennsylvania, Georgia, Illinois, and Texas also perform licensing and regulatory oversight activities.

## *T*he Office of Nuclear Reactor Regulation

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The Office of Nuclear Reactor Regulation (NRR) is responsible for ensuring the public health and safety by licensing, regulating and inspecting all nuclear power reactor facilities in the United States. NRR also oversees the licensing and inspection of manufacturing, production, and utilization facilities (except facilities reprocessing fuel and performing isotopic fuel enrichment), and verifies the receipt, possession, and ownership of source, byproduct and special nuclear material used or produced at facilities licensed under Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50). NRR develops policy and inspection guidance for programs assigned to the Regional Offices and assesses the effectiveness and uniformity of the Regions' implementation of the programs.

## *T*he Office of Nuclear Materials Safety and Safeguards

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The Office of Nuclear Materials Safety and Safeguards (NMSS) is responsible for ensuring the public health and safety by doing licensing, inspection,

and environmental reviews of all activities regulated by the Nuclear Regulatory Commission (except the activities of operating power and non-power reactors), NMSS does the safeguards technical review of all licensing activities, including export/import licenses for special nuclear material (excluding reactor fuel). NMSS develops and implements NRC policy



on regulating activities involving radioactive materials, such as uranium recovery activities; fuel fabrication and development; medical, industrial, academic, and commercial uses of radioactive materials; safeguards activities; transportation of nuclear materials, and the certification of transport containers and reactor spent fuel storage containers and facilities; the safe management and disposal of low-level and high-level radioactive waste; and management of decommissioning activities.

## *R*egion I

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Region I of the NRC, located in King of Prussia, Pa., is managed by a Regional Administrator and Deputy Regional Administrator. The mission of the Region is to execute NRC policies and programs relating to inspection, licensing, incident response, governmental liaison, resource management, and human resources.

The Region has four divisions. The Division of Reactor Projects (DRP) is responsible for overseeing the implementation of inspection policies and directing the inspection and assessment programs for power reactors. DRP activities include inspection program management, plant performance reviews (PPRs), resident inspection, and allegation follow up.

The Division of Reactor Safety (DRS) is responsible for operator licensing, radiation safety, security, emergency preparedness, and the assessment of licensees' overall engineering capabilities and their ability to take effective, comprehensive corrective actions in areas critical to safe plant operations.

The Division of Nuclear Materials Safety (DNMS) is responsible for overseeing the implementation of materials policies, directing the materials safety licensing and inspection programs, and doing Agreement State reviews, managing reactor decommissioning activities and regional site decommissioning plan (SDMP) activities.

The Division of Resource Management (DRM) is responsible for the administrative functions of human resource management, contract administration, budget and fiscal management, automated data processing, space and property management, telecommunications and general administrative services (including licensee fee management and processing of Freedom of Information Act (FOIA) requests).

## Entry-Level Inspector Qualification Program Information

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The Region I Entry-Level Inspector Qualification Program combines a series of individually tailored developmental rotational assignments, with extensive formal training in a nuclear reactor technology or a nuclear materials technology. Some of the courses are required and some are optional. The 2-year program is designed to give new employees maximum exposure to the NRC's work and a broad perspective on the NRC's regulatory process.



The training and the developmental assignments in this program follow the guidelines of an inspector qualification manual designed to prepare an employee to become a qualified NRC inspector.

Entry-level inspectors normally complete two 3-to-6 month developmental rotational assignments. They may qualify as inspectors before completing

rotational assignments. The timing and duration of these assignments depend on the needs of both the organization and the individual. Reactor inspectors are assigned to a plant site and are attached to a branch of NRR at Headquarters. Nuclear materials license reviewers and inspectors are normally assigned to various branches of NMSS at Headquarters.

## *F*ormal Training

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All entry-level inspectors are expected to complete the courses listed in Appendix A as a part of their developmental program and the inspector qualification process. Nuclear materials inspectors and license reviewers must complete the courses listed in Appendix B. Between courses there will be interludes of hands-on experience (accompanying a qualified inspector on an inspection, assignment to an inspection team, a rotational assignment, attendance at management and licensee meetings). The objective is to give the entry-level inspector a diverse mix of education and experience.

An entry-level reactor inspector is assigned a Region I power plant (e.g., Limerick Power Plant) as a reference site. The inspector will take the reactor technology series courses for the assigned site (e.g., the GE BWR/4 Technology series or the Westinghouse Technology series), and use the reference site in completing on-the-job training assignments. The site visits and site rotational assignments are normally to the reference site, but the inspector may visit other sites as well.

## *R*otational Assignments

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The rotational assignments are intended to maximize the new employee's exposure to NRR or NMSS and to Regional activities. As such, they are an integral part of the entry-level inspector's development. These assignments are tailored to each inspector's background, career goals and program schedule. The employee's supervisor suggests potential rotational assignments and, with input from the employee, determines which assignments will be scheduled and when. The supervisor then prepares a schedule and revises it as necessary.

## *I*ndividual Development Plan

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With the guidance of his or her supervisor and mentor, each entry-level inspector will prepare an Individual Development Plan (IDP) specifying an appropriate mix of reading, orientation, visits, developmental assignments, and informal and formal training.

The employee and his or her supervisor review the IDP periodically to ensure that it remains consistent with the employee's performance and experience.

## *M*entors

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A key element of the Entry-Level Inspector Qualification Program is the mentor. A mentor is a sponsor, a teacher and a counselor, and is typically independent from the individual's supervisor. The mentor is a senior staff member (usually a Branch Chief or above) assigned to guide each new employee through the program. Great care is taken to match an appropriate mentor to each entry-level inspector. Mentors are selected on the basis of their willingness to be mentors, their commitment to and skill in an individual advisory role, the breadth of their management perspective, and how much time they can devote to mentoring.

Mentors are encouraged to be open, candid and willing to share concerns and give constructive feedback. The mentor should be available to discuss long term career development with the employee, advise and encourage the employee throughout the 2-year program, and advise the employee on optional approaches for successfully overcoming any problems related to the program. Entry-level inspectors are encouraged to meet with their mentors regularly.

## *P*eer Sponsor

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Newly hired employees are assigned a Peer Sponsor to help them through the initial transition. The Peer Sponsor is a fellow inspector who can share experiences and guide the new employee. The Peer Sponsor greets

the new employee upon arrival, shows him or her around the Region I office, and helps the supervisor introduce the new employee to the other members of the Region.

## *P*erformance Plan

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Uniform performance plans (elements and standards) have been developed for the Entry-Level Inspector Qualification Program. Elements and



standards for entry-level inspectors emphasize participation in the program and are not grade-specific.

The appraisal period coincides with the schedule established for all non-SES NRC employees, from October 1 through September 30 of each year, with midyear

performance reviews conducted in April. At the end of each rotational assignment, the rotational supervisor prepares an appraisal of the employee's performance. The entry-level inspector's annual appraisal of record is a composite of the rotational supervisors' ratings.

## *T*rial Period Appraisals

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Most employees new to Federal service are on probation during their first 2 years of employment. During this trial period, the supervisor reviews the employee's performance and conduct, and determines the employee's suitability for continued Federal employment.

## *P*romotions

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As mentioned above, this is an entry-level program. Individuals hired into this program are usually hired at the Grade 5 or Grade 7 level. The full performance level for these positions is Grade 13. Entry-level inspectors are annually eligible for noncompetitive promotion up to Grade 13.

## *O*ral Qualification Board

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The employee's supervisor determines when the employee has completed all necessary training, tasks, and assignments, and is ready to sit for the Oral Qualification Board. This is usually towards the end of the 2-year program.

The Oral Qualification Board consists of three or more qualified personnel, usually Senior Inspector level and above. The Board asks the employee about his or her knowledge of NRC policies on the operation of nuclear power plants or the implementation of the nuclear materials inspection and licensing program. The Board members assess the qualification of the employee to conduct the NRC inspection or licensing program and recommend to the Regional Administrator to certify the employee as a qualified inspector and/or license reviewer.

At the recommendation of the Board, the Regional Administrator certifies the employee as a qualified independent inspector and/or license reviewer.

## *G*raduation

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The Human Resources Office arranges graduation activities for all entry-level inspectors at the completion of the program. At that time, a Certificate of Completion is presented to each graduate.

# **Entry-Level Reactor Inspector**

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Below is the list of the formal training courses for the Entry-Level Reactor Inspector Qualification Program. These courses provide an excellent overview of nuclear plant technology, and teach a wide array of skills. The courses teach new inspectors about the NRC's role and mission, about the responsibilities and legal authority of an inspector, about proven inspection techniques and procedures and how to develop inspection skills and techniques. The courses also give a good understanding of reactor technology and some familiarity with the NRC's regulatory processes.

## **Inspection Skills Training Courses**

Site Access Training

Fundamentals of Inspection or Reactor Inspection and Oversight Program Training

Inspecting for Performance

Effective Communications for NRC Inspectors (OP)

## **Technical Training Courses**

Power Plant Engineering (E-110) (self-study)

GE BWR/4 or Westinghouse Technology Series

Root Cause/Incident Investigation Workshop (G-205)

PRA Technology and Regulatory Perspectives (P-111)

## **General Information Courses**

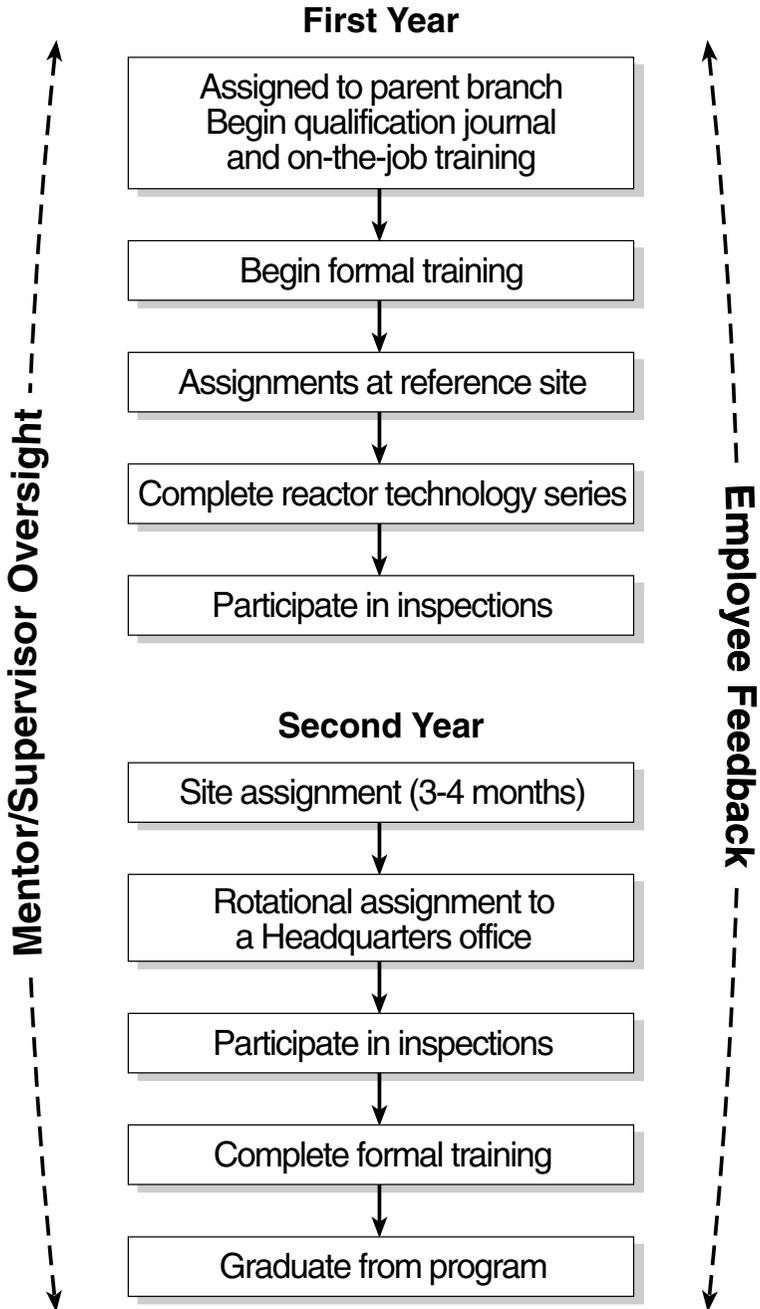
NRC: What It Is and What It Does

The Regulatory Process

NRC & Its Environment

Courses alternate with mentored self-study and participation in nuclear safety inspections.

# Typical Entry Level Reactor Inspector Milestone Chart



# Entry-Level Nuclear Materials License Reviewer/Inspector

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Below is the list of formal training courses for the Entry-Level Materials Inspector Qualification Program. These courses provide an excellent overview of nuclear plant technology, and teach a wide array of skills. The courses teach new inspectors about the NRC's role and mission, about the responsibilities and legal authority of an inspector, about proven inspection techniques and procedures and how to develop their own inspection skills and techniques. The courses also give them a good understanding of the relevant technologies, and some familiarity with the NRC's regulatory processes.

## **LICENSE REVIEW/INSPECTION SKILLS TRAINING COURSES**

Fundamentals of Inspection (G-101) *or* Inspection Procedures (G-108)

Inspecting for Performance - Materials Version (G-304)

Licensing Practices and Procedures (G-109)

Effective Communications for NRC Inspectors (OP)

NMSS Radiation Worker Training (H-102) *or* Site Access Training (H-100)

## **TECHNICAL TRAINING COURSES**

Health Physics Technology (H-201)

Diagnostic and Therapeutic Nuclear Medicine (H-304)

Safety Aspects of Industrial Radiography (H-305)

Teletherapy and Brachytherapy (H-313)

Transportation of Radioactive Materials (H-308)

OSHA Indoctrination (G-111)

Root Cause/Incident Investigation Workshop (G-205)

## **GENERAL INFORMATION COURSES**

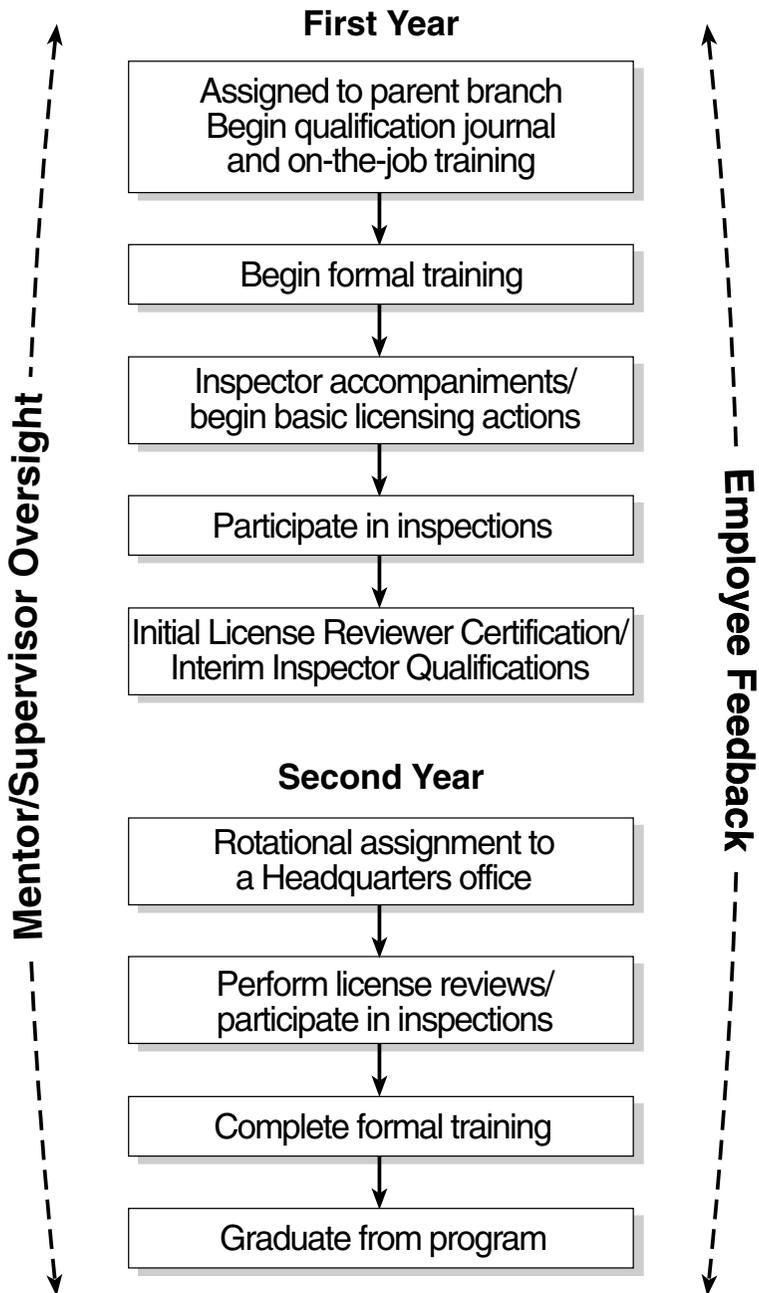
NRC: What It Is and What It Does

The Regulatory Process

Reactor Concepts

NRC & Its Environment

# Typical Entry Level Nuclear Materials License Reviewer/Inspector Milestone Chart





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