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Office of Public Affairs
301.415.8200
www.nrc.gov ▪ opa.resource@nrc.gov

Resident Inspector Program

Since the late 1970s, the Nuclear Regulatory Commission has maintained its own eyes and ears at the nation's nuclear power plants. These on-site inspectors are referred to as resident inspectors. Each plant has at least two such inspectors and their work is at the core of the agency's reactor inspection program.

On a daily basis, these highly trained and qualified professionals observe plant activities and check on how the plants meet federal safety requirements. That oversight can take many forms on any given day. For example, inspectors visit control rooms and review operator logbook entries; watch operators conduct plant manipulations; visually assess areas of the plant; observe tests of, or repairs to, important systems or components; interact with plant employees to see if they have any safety concerns; and check corrective action documents to ensure that problems have been identified and appropriate fixes implemented.

If resident inspectors identify safety-significant issues, they promptly bring them to the attention of plant operators to be corrected, if necessary, and communicated to NRC management. If any problems are significant enough, the NRC will consider whether enforcement action is warranted.

The agency has about 150 resident inspectors, including some who are based at nuclear fuel production facilities and new reactor construction sites.

Training / Qualifications

The resident inspectors come from a variety of backgrounds. Some served in the U.S. Navy's nuclear program prior to joining the NRC. Others worked in the nuclear industry and still others are recruited directly out of college. Most come to the agency with engineering and/or science degrees, and then receive extensive additional training from the NRC. The rigorous training program educates the inspectors about federal safety regulations and their role in independently verifying these requirements are being met at U.S. operating commercial reactors.

Resident inspector candidates must complete a rigorous training and qualification process. Prospective inspectors demonstrate their abilities via a qualification exam administered by an Inspector Qualification Board, which consists of at least three members who evaluate how well an individual can integrate and apply inspector competencies to situations they are likely to encounter.

A resident inspector's training continues after he or she is determined to be fully qualified. All inspectors are required to receive training on an ongoing basis to maintain a high level of performance. They are required to take triennial refresher training for the specific reactor technology to which they are assigned. There is also other ongoing training for inspectors.

How It Began / The Need for Independence

The NRC's Resident Inspectors Program has been in place for decades. It was launched in 1978 – prior to the 1979 accident at the Three Mile Island 2 nuclear power plant – to improve the agency's inspection program. The goal was to provide increased knowledge of plant conditions, improve the NRC's ability to independently verify the performance of plant personnel and equipment, and enhance the NRC's incident response capability. Along those lines, the inspectors provide the agency's initial evaluation of plant events or incidents, receive allegations regarding safety issues from plant employees, and at times conduct inspections during off-hours and on weekends, among other activities.

Resident inspectors typically live in the communities around the plants they help oversee. But because the preservation of their objectivity is essential, there are restrictions on their interactions with plant employees. For instance, resident inspectors are discouraged from participating in social activities in which plant employees are involved, and any previously existing relationships with plant personnel or contractors must be disclosed to management. Also, resident inspectors can remain at any given plant no longer than seven years.

More information about the NRC's Reactor Oversight Process is available on the agency's website, as well as the NRC's YouTube video on "A Day in the Life of a Resident Inspector."

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