

The NRC: Who We Are and What We Do

License Renewal Environmental Scoping Meeting
Oyster Creek Nuclear Generating Station – November 1, 2005



Who We Are

- The Energy Reorganization Act of 1974 established the independent U.S. Nuclear Regulatory Commission to regulate commercial uses of nuclear material; other duties of the former Atomic Energy Commission were assigned to the Department of Energy.
- The NRC is headed by four Commissioners and a Chairman, all appointed by the President and confirmed by the Senate for staggered five-year terms. No more than three can be from the same political party.





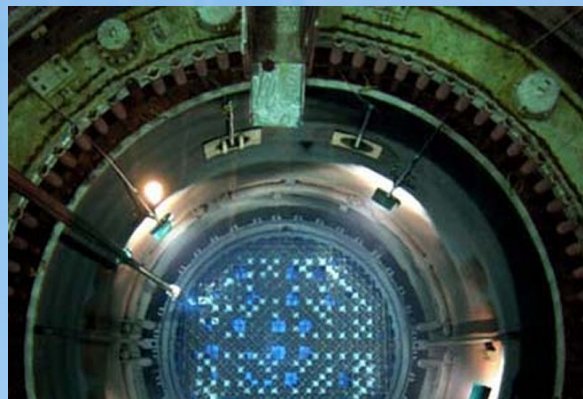
Who We Are

- The NRC employs about 3,000 people in its suburban Maryland headquarters and four regional offices in Pennsylvania, Georgia, Illinois, and Texas.
- NRC inspectors are assigned to 65 nuclear power plant sites and 3 fuel facilities.
- NRC staff are Federal employees qualified to hold positions of public trust. They are bound by stringent ethics, rules, and restrictions.





Our Mission



To license and regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.





Our Goals

- Safety: Ensure the protection of public health and safety and the environment.
- Security: Ensure the secure use and management of radioactive material.
- Openness: Ensure openness in our regulatory process.
- Effectiveness: Ensure our actions are effective, efficient, realistic, and timely.
- Management: Ensure excellence in agency management.





The NRC Regulates:

- Nuclear reactors - commercial power reactors, research and test reactors, new reactor designs;
- Nuclear materials - nuclear reactor fuel, radioactive materials for medical, industrial and academic use;
- Nuclear waste – transportation, storage and disposal of nuclear material and waste, decommissioning of nuclear facilities; and
- Nuclear security – physical security of nuclear facilities and materials from sabotage or attacks.





What we don't do:

- Regulate nuclear weapons, military reactors, or space vehicle reactors. (These are regulated by other Federal agencies.)
- Own or operate nuclear power plants.
- Regulate some radioactive materials, such as naturally occurring radon, X-rays, and material produced in particle accelerators. (These are regulated by states or other Federal agencies.)





Our Primary Functions

- Establish rules and regulations
- Issue licenses
- Provide oversight through inspection, enforcement, and evaluation of operational experience
- Conduct research to provide support for regulatory decisions
- Respond to emergencies





How We Regulate

- ☑ Establish rules and regulations
 - NRC establishes rules that users of radioactive material must follow. These rules protect workers and the public from the potential hazards of radioactivity.
 - Before writing or changing the regulations, NRC solicits and considers the views of the public, industry representatives, researchers, state officials, scientists, and technical experts.





How We Regulate

☑ Issue licenses

- Any organization or individual intending to have or use nuclear materials that are covered by NRC's programs must obtain a license from the NRC or from a state that has entered into an agreement with the NRC.
- These licenses specify the types and quantities of material, the activities it may be used for, and additional conditions.





How We Regulate

☑ Provide oversight, including inspections



- The NRC inspects licensed facilities to ensure they meet regulations and the terms of their licenses.
- The NRC assesses facility performance.
- The NRC investigates allegations of wrongdoing through the Office of Investigations.





How We Regulate

☒ Undertake enforcement actions

When violations are uncovered, the NRC can:

- Issue a notice of violation;
- Impose fines of up to \$130,000 a day;
- Modify, suspend or revoke a license, for very serious instances of noncompliance; and
- Refer violations to the Department of Justice for review.





How We Regulate

☑ Evaluate operational experience

- The NRC collects and analyzes information about events at nuclear facilities to assess plant safety and identify any weaknesses in plant design, operations, or equipment.
- The NRC identifies and addresses safety-related issues that are common among plants of similar designs (called generic safety issues).





How We Regulate

☑ Provide support for regulatory decisions

- Regulatory research provides technical advice, analytical tools, and information to support NRC decisions, focusing on safety and security.
- Three committees provide independent advice and review NRC proposals. They are the:
 - ✓ Advisory Committee on Reactor Safeguards;
 - ✓ Advisory Committee on Nuclear Waste; and
 - ✓ Advisory Committee on Medical Uses of Isotopes.





How We Regulate

☑ Respond to emergencies

- The NRC maintains an active program to ensure readiness and response to an event at a nuclear facility potentially affecting public health and safety.
- The NRC has incident response centers at its headquarters and regional offices to provide consultation, support, and assistance to licensees and state and local public officials.





What We Do – Nuclear Reactors

The NRC ensures nuclear plant safety by requiring a “defense-in-depth” design philosophy in plants that includes:

- Multiple, redundant, and independent safety systems;
- Multiple physical barriers, including robust reactor containment that prevents the release of radioactivity; and
- Testing of emergency plans.





What We Do – Nuclear Reactors

The NRC ensures nuclear plant safety by verifying compliance with regulations.

- Each nuclear power plant site has at least two NRC resident inspectors onsite to perform daily inspections.
- Special inspectors also perform periodic inspections.
- Licensees are required to report plant safety data and events to the NRC.





What We Do – Nuclear Reactors

The NRC also ensures nuclear plant safety by:

- Requiring long-term maintenance to assure equipment is repaired or replaced in a timely manner and
- Requiring continual training and qualification of nuclear plant operators.





What We Do – Nuclear Waste

NRC ensures public safety through the licensing of nuclear waste, including:

- A high-level radioactive waste repository at Yucca Mountain, Nev., the site proposed by the DOE.
- Spent fuel storage installations for the interim storage of spent nuclear reactor fuel in fuel pools or dry storage casks.
 - ✓ About 50,000 metric tons stored at reactor sites.
 - ✓ Twenty-seven spent fuel storage sites.

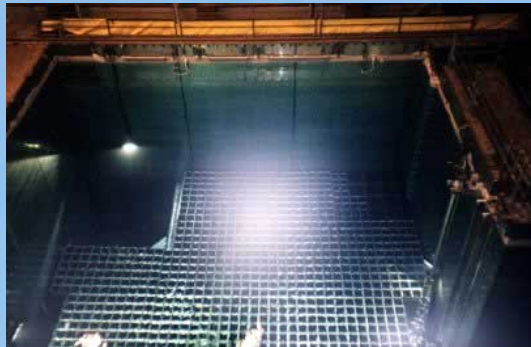




What We Do – Nuclear Waste

The NRC also certifies:

- Spent fuel storage and transportation cask designs and
- Transportation packages for nuclear materials and waste.





What We Do – Nuclear Security

- The NRC has long recognized the importance of protecting the nation by securing nuclear facilities and materials, and significantly increased security requirements after 9/11.
- Nuclear power plants are built to withstand disasters both natural and man-made, and are among the best-protected commercial facilities in the U.S.
- The NRC works closely with the Department of Homeland Security, the FBI, and others to monitor threat conditions.





What We Do – Nuclear Security

To ensure nuclear plants are as secure as they are safe, the NRC requires such measures as:

- Well-armed and well-trained security forces;
- Surveillance and perimeter patrols;
- State-of-the-art site access equipment and controls;
- Physical barriers and detection zones; and
- Intrusion detection systems and alarm stations.





What We Do – Nuclear Security

The NRC is always ready to respond, if necessary.

- The NRC responds to Incidents of National Security under the National Response Plan, coordinating with Federal, state, and local first responders.
- The NRC conducts regular exercises to test licensee emergency response capabilities and uses mock adversaries to test security guard response.
- An NRC Operations Center is staffed 24 hours a day to monitor events and initiate response activities.





What We Do – Nuclear Security



“Our vulnerability studies confirm that it would be difficult for even determined adversaries to both damage the reactor core and release radioactivity that would affect public health and safety.”

-- Luis Reyes, the NRC's Executive Director for Operations, testifying before Congress on Sept. 14, 2004.





Partners in Regulation

The NRC works with other Federal agencies, organizations, and government officials to ensure the safety and security of commercial nuclear power plants and materials, including:

- Department of Energy
- Environmental Protection Agency
- Department of Homeland Security
- Federal Bureau of Investigation
- Department of Health and Human Services
- Congress
- International Atomic Energy Agency
- Nuclear Energy Institute





Open to the Public

- The NRC places a high priority on keeping the public and stakeholders informed of its activities.
- At www.nrc.gov, you can:
 - ✓ Find public meeting dates and transcripts;
 - ✓ Read NRC testimony, speeches, press releases, and policy decisions; and
 - ✓ Access the agency's Electronic Reading Room to find NRC publications and documents.





Other Areas of Interest

For related information on:

- Nuclear energy and energy policy, go to www.doe.gov;
- Radiation and health effects, go to www.epa.gov;
- U.S. homeland security initiatives, go to www.dhs.gov;
- International nuclear affairs, go to www.iaea.org; and
- Being prepared for any emergency, go to www.ready.gov.

