Mission

The U.S. Nuclear Regulatory Commission (NRC) is an independent agency created by Congress. Its mission is to license and regulate the civilian use of radioactive materials in the United States to protect public health and safety, promote the common defense and security, and protect the environment.

The NRC regulates commercial nuclear power plants; research, test, and training reactors; nuclear fuel cycle facilities; and radioactive materials used in medicine, academia, and industry. The agency also regulates the transport, storage, and disposal of radioactive materials and waste; most Federal agencies' use and possession of radioactive materials; and the export and import of radioactive materials.

Commission

Chairman Kristine L. Svinicki	Term ends June 30, 2022
Commissioner Jeff Baran	Term ends June 30, 2018
Commissioner Stephen G. Burns	Term ends June 30, 2019
Vacant	
Vacant	

Locations

Headquarters:
U.S. Nuclear Regulatory Commission
Rockville, MD, 301-415-7000, 1-800-368-5642

Regional Offices:
Region I—King of Prussia, PA, 610-337-5000, 1-800-432-1156

Region II—Atlanta, GA, 404-997-4000, 1-800-577-8510

Region III—Lisle, IL, 630-829-9500, 1-800-522-3025

Region IV—Arlington, TX, 817-860-8100, 1-800-952-9677

Headquarters Operations Center:
Rockville, MD, 301-816-5100
The NRC maintains a staffed, 24-hour Operations Center that coordinates incident response with Federal, State, Tribal, and local agencies.

Training and Professional Development:
Technical Training Center, Chattanooga, TN, 423-855-6500
Professional Development Center, Rockville, MD, 301-287-0556

Resident Sites:
At least two NRC resident inspectors, who report to the appropriate regional office, are located at each nuclear power plant site.

NRC Fiscal Year 2017 Budget

- Total authority: $940 million ($917 million enacted budget with $23 million carryover authority)
- Total authorized staff: 3,396 full-time equivalents
- Estimated fees to be recovered: $804.6 million
- The Office of the Inspector General received its own appropriation of $12.1 million
- Total Research Budget: $30 million
  - Reactor Program: $22 million
  - New/Advanced Reactor Licensing: $6 million
  - Materials and Waste: $2 million

What Does the NRC Do?

- Regulation and guidance—rulemaking
- Policymaking
- Licensing, decommissioning, and certification
- Research
- Oversight and enforcement
- Emergency preparedness and response
- Incident response

NRC Governing Legislation

The NRC was established by the Energy Reorganization Act of 1974. The most significant laws that govern the regulatory process of the agency are in Appendix V to this Digest. The NRC's regulations are found in Title 10, "Energy," of the *Code of Federal Regulations (10 CFR).* The text of many laws may be found in NUREG-0980, "Nuclear Regulatory Legislation."

NRC by the Numbers

U.S. Electricity Generated by Commercial Nuclear Power

NRC-licensed nuclear reactors generate about 20 percent of U.S. gross electricity, or about 805 billion kilowatt-hours.

Nuclear Reactors

- 99 commercial nuclear power plants operating in 30 States at 59 sites
  - 65 pressurized-water reactors and 34 boiling-water reactors
- Four reactor fuel vendors
- 23 parent operating companies
- About 80 different designs
- About 6,550 total inspection hours at each operating reactor site in 2016
- Licensees expected to shut down or not seek license renewal include:
  - Palisades Nuclear Plant (Entergy) will close by end of October 2018.
  - Pilgrim Nuclear Power Station (Entergy) will close by end of May 2019.
  - Three Mile Island Unit 1 (Exelon) plans to shut down in September 2019.
  - Indian Point Nuclear Generating Station, Units 2 and 3 (Entergy), will close in 2020 and 2021, respectively.
  - Oyster Creek (Exelon) plans to shut down in December 2019.
  - Diablo Canyon (Pacific Gas & Electric) intends to close by August 2025.

Reactor License Renewal

Commercial power reactor operating licenses are valid for 40 years and may be renewed for additional 20-year terms.

- 15 reactors operate under their original license.
- 87 reactors were issued renewal licenses, including 3 reactors permanently shut down.
- Five sites have license renewal applications in review.
- Three sites have submitted letters of intent to request initial license renewal.
- Two sites have submitted letters of intent to request subsequent license renewal.

Early Site Permits for New Reactors

- Five early site permits (ESPs) issued and one application docketed:
  - System Energy Resources, Inc., for the Grand Gulf site in Mississippi
  - Exelon Generation Company, LLC, for the Clinton site in Illinois
  - Dominion Nuclear North Anna, LLC, for the North Anna site in Virginia
  - Southern Nuclear Operating Company, for the Vogtle site in Georgia
  - PSEG Power, LLC, and PSEG Nuclear, LLC, for a site in New Jersey
  - The NRC is reviewing one ESP application from the Tennessee Valley Authority (TVA) for two or more small modular reactor (SMR) modules at the Clinch River Nuclear Site in Roane County, Tennessee.

Combined License—Construction and Operating for New Reactors

- Since June 2007, the NRC has received and docketed 18 combined license (COL) applications for 28 new, large light-water reactors.
- The NRC suspended or canceled 10 COL application reviews at the request of the applicants (Bell Bend, PA; Bellefonte, AL; Callaway, MO, Calvert Cliffs, MD; Comanche Peak, TX; Grand Gulf, MS; Nine Mile Point, NY; River Bend, LA; Shearon Harris, NC; and Victoria County Station, TX).
- As of July 1, 2017, the NRC has issued COLs for 12 reactors at Fermi, MI; Levy County, FL; North Anna, VA; South Texas Project, TX; V.C. Summer, SC; Vogtle, GA; and William States Lee, SC. On July 31, 2017, a decision was announced by South Carolina Electric & Gas (SCE&G) to cease construction on V.C. Summer nuclear power plant, Units 2 and 3.
- The NRC has completed the safety and environmental reviews for two reactors at Turkey Point, FL Mandatory and contested hearings are planned for Fall 2017.

Reactor Design Certification

- Five reactor design certifications (DCs) have been issued:
  - General Electric Nuclear Energy's ABWR (Advanced Boiling-Water Reactor)
  - Westinghouse Electric Company's System 80+
  - Westinghouse Electric Company's AP600
  - Westinghouse Electric Company's AP1000
  - General Electric-Hitachi Nuclear Energy's ESBWR (Economic Simplified Boiling-Water Reactor)
- Three DC applications are under review for the APR1400, US-APWR designs, and NuScale designs.
- One DC application for US-EPR (Evolutionary Pressurized-Water Reactor) is suspended at the request of the applicant.
- One DC renewal application is under review for the ABWR design.

Nuclear Research and Test Reactors

- 31 licensed research and test reactors operate in 21 States.

Nuclear Materials

Materials Licensing

- The NRC and the Agreement States have approximately 19,600 licensees for medical, academic, industrial, and general users of nuclear materials.
  - The NRC regulates approximately 2,600 licenses.
  - 37 Agreement States regulate approximately 17,000 licenses.
- Wyoming has submitted a draft application and Vermont has submitted a letter of intent to become Agreement States.
- The NRC issues approximately 2,000 new licenses, renewals, or amendments for existing materials licenses annually. The NRC conducts approximately 900 health, safety, and security inspections of materials licensees each year.

Nuclear Fuel Cycle

- 11 uranium recovery sites are licensed by the NRC:
  - 10 in situ recovery sites
  - One conventional mill in standby status with the potential to restart in the future
- Three applications have been submitted for renewal; two are active, one is delayed.
- Six applications for facility expansion have been received. Three of those applications are under review.
- 13 fuel cycle facilities are licensed by the NRC:
  - One uranium hexafluoride conversion facility
  - Five uranium fuel fabrication facilities
  - Four gas centrifuge uranium enrichment facilities (one operating, one used for testing and currently transitioning to decommissioning, and two construction pending)
  - One mixed-oxide fuel fabrication facility (under construction and review)
  - One laser separation enrichment facility (construction decision pending)
  - One uranium hexafluoride deconversion facility (construction decision pending)
- The NRC issues about 60 fuel cycle facility licensing actions per year, including amendments; renewals; new licenses; and safety, environmental, and safeguards reviews.

National Source Tracking System

The National Source Tracking System, also known as NSTS, tracks more than 76,000 sources held by about 1,400 NRC and Agreement State licensees. Of those sources, about 52 percent are Category 1 sources and 48 percent are Category 2. The majority are cobalt-60, the most widely used isotope in large sources.

Domestic Safeguards

The NRC and the U.S. Department of Energy use the Nuclear Materials Management and Safeguards System (NMMSS) to track transfers and inventories of special nuclear material. Licensees that import and export source material, and licensees that possess foreign-obligated source material, must report transfers and inventories to NMMSS. More than 300 licensees report to the NMMSS database. These licensees verify their inventories on an annual basis through a process of reconciliation that checks their reported transactions against their previous year's inventory.

Radioactive Waste

Low-Level Radioactive Waste

- 10 regional compacts
- Four licensed disposal facilities

High-Level Radioactive Waste Management

Spent Nuclear Fuel Storage

- 78 licenses for independent spent fuel storage installations in 34 States:
  - 15 site-specific licenses
  - 63 general licenses

Transportation—Principal Licensing and Inspection Activities

- 1,000 safety inspections of fuel, reactor, and materials licensees are conducted annually.
- 50–70 new, renewal, or amended container-design applications for the transport of nuclear materials are reviewed annually.
- 150 license applications for the import and export of nuclear materials from the United States are reviewed annually.
- More than 3 million packages of radioactive materials are shipped each year in the United States by road, rail, air, or water. This represents less than 1 percent of the Nation's yearly hazardous material shipments.

Decommissioning

Approximately 150 materials licenses are terminated each year. The NRC's decommissioning program focuses on the termination of licenses that are not routine and that require complex activities.

- 20 nuclear power reactors in various stages of decommissioning (DECON or SAFSTOR)
- Four research and test reactors permanently shut down and in various stages of decommissioning
- 13 complex materials sites in various stages of decommissioning
- Two fuel cycle facilities (partial decommissioning)
- 11 NRC-licensed uranium recovery facilities in various stages of decommissioning

Security and Emergency Preparedness

- Every 2 years, each operating nuclear power plant performs a full-scale emergency preparedness exercise inspected by the NRC and evaluated by the Federal Emergency Management Agency (FEMA).
- Plants conduct additional emergency drills between full-scale exercises to maintain their preparedness and proficiency in responding to emergencies.
- Every 3 years, each nuclear plant undergoes a force-on-force security inspection. These inspections include mock combat drills. The NRC spends about 16,000 hours a year scrutinizing security at nuclear power plants, including 8,000 hours of force-on-force inspections.