Mission Statement

The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.

Commission

Chairman Kristine L. Svinicki	Term ends June 30, 2022
Commissioner Jeff Baran	Term ends June 30, 2023
Commissioner Annie Caputo	Term ends June 30, 2021
Commissioner David A. Wright	Term ends June 30, 2020
Vacant	

Locations

Headquarters:

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

Regional Offices:

Region I—King of Prussia, PA	610-337-5000, 800-432-1156
Region II—Atlanta, GA	404-997-4000, 800-577-8510
Region III—Lisle, IL	630-829-9500, 800-522-3025
Region IV—Arlington, TX	817-200-8100, 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 operating nuclear power plant site.

NRC Fiscal Year 2019 Budget

- Total authority: $931 million ($911 million enacted budget with $20 million carryover authority)
- Total authorized staff: 3,106 full-time equivalents
- Estimated fees to be recovered: $780.8 million
- Separate appropriation for the Office of the Inspector General: $12.6 million
- Total research budget: $63 million
  - Reactor Program: $47 million
  - New/Advanced Reactor Licensing: $14 million
  - Materials and Waste: $2 million

What Does the NRC Do?

- Regulation and guidance—rulemaking
- Licensing, decommissioning, and certification
- Oversight and enforcement
- Emergency preparedness and response
- Policymaking
- Research
- 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 W to this Information Digest. The NRC's regulations are found in Title 10, "Energy," of the *Code of Federal Regulations*. 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 19 percent of U.S. gross electricity, or about 807 billion kilowatt-hours.

Nuclear Reactors

- 97 commercial nuclear power plants operating in 29 States at 58 sites
  - 65 pressurized-water reactors and 32 boiling-water reactors
- Four reactor fuel vendors
- 23 parent operating companies
- About 80 different designs
- About 6,535 total inspection hours at each operating reactor site in 2018
- Licensees expected to shut down or not seek license renewal include:
  - Pilgrim (Entergy) closed at the end of May 2019.
  - Three Mile Island Unit 1 (Exelon) plans to shut down in September 2019.
  - Davis Besse (FirstEnergy) plans to shut down in May 2020.
  - Duane Arnold (NextEra) plans to shut down by the end of 2020.
  - Perry (FirstEnergy) plans to shut down in May 2021.
  - Indian Point Units 2 and 3 (Entergy) will close in 2020 and 2021, respectively.
  - Beaver Valley Units 1 and 2 (FirstEnergy) will close in May and October 2021, respectively.
  - Palisades (Entergy) will close by May 2022.
  - Diablo Canyon Units 1 and 2 (Pacific Gas & Electric) plans to close by 2024 and 2025, respectively.

Reactor License Renewal

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

- 94 reactors were issued renewal licenses, including five reactors now permanently shut down.
- Eight reactors operate under their original license.

Subsequent License Renewal

This type of licensing would allow plants to operate from 60 to 80 years.

- Six reactors at three sites have subsequent license renewal applications under review.
- One site with two reactors has submitted a letter of intent to request subsequent license renewal.

Early Site Permits for New Reactors

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

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 for 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.
- The NRC has issued COLs for 14 reactors at Fermi, MI; Levy County, FL; North Anna, VA; South Texas Project, TX; Turkey Point, FL; V.C. Summer, SC; Vogtle, GA; and W.S. Lee, SC. At the licensee's request, six COLs have been terminated at three sites: Levy County Units 1 and 2 (terminated on April 26, 2018), V.C. Summer Units 2 and 3 (terminated on March 6, 2019), and South Texas Project Units 3 and 4 (terminated on July 12, 2018).

Reactor Design Certification

- Six reactor design certifications (DCs) have been issued:
  - General Electric-Hitachi 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)
  - Korean Electric Power Corporation APR 1400 (Advanced Power Reactor)
- Two DC applications are under review for the US-APWR (Advanced Pressurized-Water Reactor) 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.
- Two medical radioisotope production facilities are authorized for construction: SHINE Medical Technologies, Inc., in Janesville, WI, and Northwest Medical Isotopes, LLC, in Columbia, MO.

Nuclear Materials

Materials Licensing

- The NRC and the Agreement States have approximately 19,300 licensees for medical, academic, industrial, and general users of nuclear materials.
  - The NRC regulates approximately 2,800 licenses.
  - 38 Agreement States regulate approximately 16,500 licenses.
  - Vermont has submitted a final application to become an Agreement State.
- The agency issues approximately 1,600 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

- Three uranium recovery sites are licensed by the NRC.
- 10 fuel cycle facilities are licensed by the NRC:
  - One uranium hexafluoride conversion facility ("ready-idle" status)
  - Five uranium fuel fabrication facilities
  - Two gas centrifuge uranium enrichment facilities (one operating and one construction pending)
  - One uranium enrichment laser separation facility (construction on hold)
  - One depleted uranium deconversion facility (construction decision pending)
- The NRC issues about 50 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 source and special nuclear material. Licensees must report their inventories, transfers, purchases, and sales (including import and export) of these materials to the NMMSS. More than 300 licensees report to the NMMSS database, verifying their inventories at least annually by reconciling their transactions against the previous year's inventory. The database supports U.S. participation in the Treaty on the Non-Proliferation of Nuclear Weapons.

Radioactive Waste

Low-Level Radioactive Waste

- 10 regional compacts
- Four State-licensed disposal facilities

High-Level Radioactive Waste Management

Spent Nuclear Fuel Storage

- 80 licenses for independent spent fuel storage installations in 35 States:
  - 15 site-specific licenses
  - 65 general licenses
- Two applications are under review for consolidated interim storage facilities for spent fuel in Andrews County, TX, and Lea County, NM.

Transportation—Principal Licensing and Inspection Activities

- Approximately 1,000 safety inspections of fuel, reactor, and materials licensees are conducted annually.
- 50–70 new, renewed, 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 100 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.

- 22 nuclear power reactors in various stages of decommissioning (DECON or SAFSTOR)
- Three research and test reactors permanently shut down and in various stages of decommissioning
- 11 complex materials sites in various stages of decommissioning
- One fuel cycle facility in partial decommissioning
- Five 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.
- The NRC spends about 15,000 hours a year scrutinizing security at nuclear power plants, including 8,000 hours of force-on-force inspections. These inspections include mock combat drills and are conducted on a cycle so that each plant undergoes a force-on-force inspection every 3 years.
- The NRC has implemented a comprehensive cybersecurity oversight program for power reactors, which includes routine inspections and requires licensees to isolate critical systems from the Internet.