

# NRC AT A GLANCE

## ***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 Christopher T. Hanson	Term ends June 30, 2024
Commissioner Jeff Baran	Term ends June 30, 2023
Commissioner David A. Wright	Term ends June 30, 2025
Vacant	Term ends June 30, 2022
Vacant	Term ends June 30, 2026

## ***Locations***

### **Headquarters:**

U.S. Nuclear Regulatory Commission Rockville, MD	301-415-7000 800-368-5642
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### **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
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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 assigned at each operating nuclear power plant site.

## ***NRC Fiscal Year 2021 Budget***

- *Total authority: \$879 million (\$844 million enacted budget and \$35 million authorized carryover)*
- *Total authorized staff: 2,868 full-time equivalents*
- *Estimated fees to be recovered: \$721.4 million*
- *Separate appropriation for the Office of the Inspector General: \$13.5 million*
- *Total research budget: \$77 million*
  - *Reactor Program: \$55 million*
  - *New/Advanced Reactor Licensing: \$18 million*
  - *Materials and Waste: \$4 million*

## ***What Does the NRC Do?***

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

## ***Nuclear 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 of this Information 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 19 percent of U.S. gross electricity, or about 807 billion kilowatt-hours.

### ***Nuclear Reactors***

- *93 commercial nuclear power reactors operating in 28 States at 55 sites*
- *62 pressurized-water reactors and 31 boiling-water reactors*
- *Four reactor fuel vendors*
- *21 parent operating companies*
- *About 80 different designs*
- *About 5,530 total inspection and assessment hours at each operating reactor in 2020*
- *Licensees expected to shut down or not seek license renewal include the following:*
  - *Palisades (Entergy) will close by May 31, 2022*
  - *Diablo Canyon Units 1 and 2 (Pacific Gas and Electric) plan to close by November 2024 and August 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 have been issued initial renewed licenses, including 9 reactors now permanently shut down.
- Eight reactors operate under their original licenses.

## **Subsequent License Renewal**

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

- Six reactors at three sites have been issued subsequent renewed licenses.
- Seven reactors at three sites have subsequent license renewal applications under review.
- Two licensees with a total of five reactors have submitted letters of intent to request subsequent license renewals.

## **Early Site Permits for New Reactors**

- Six early site permits 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
  - Tennessee Valley Authority for two or more small modular reactor modules at the Clinch River Nuclear Site in Tennessee

## **Combined License — Construction and Operating License 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 has received and docketed a COL application for the Oklo advanced reactor.
- 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); South Texas Project Units 3 and 4 (terminated on July 12, 2018); and V.C. Summer Units 2 and 3 (terminated on March 6, 2019).

## **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 APR1400 (Advanced Power Reactor)

- One DC application review was completed by NRC staff for the NuScale small modular reactor design and issued a final safety evaluation report. The NRC staff published the proposed NuScale small modular reactor design certification rule for public comment on July 1, 2021.
- The NRC completed review of one DC renewal application for the ABWR design. The final rule for the ABWR design is effective September 29, 2021.
- Two DC applications for the U.S. EPR (Evolutionary Pressurized-Water Reactor) and US-APWR (Advanced Pressurized-Water Reactor) are suspended at the request of the applicants.

### ***Nonpower Production and Utilization Facilities***

- *Research and Test Reactors*
  - 31 licensed research and test (nonpower) reactors operate in 21 States.
- *Medical Radioisotope Facilities*
  - Two construction permits have been issued to SHINE Medical Technologies, LLC, in Janesville, WI, and Northwest Medical Isotopes, LLC, in Columbia, MO.
  - One operating license application is under review (SHINE).

## **NUCLEAR MATERIALS**

### ***Materials Licensing***

- *The NRC and the Agreement States have more than 18,000 licensees for medical, academic, industrial, and general users of nuclear materials.*
  - *The NRC regulates nearly 2,200 licenses.*
  - *The 39 Agreement States regulate more than 16,000 licenses.*
- *Connecticut and Indiana have submitted letters of intent to become Agreement States, a process that takes about 5 years to complete, including legislative action within the States.*
- *The agency issues approximately 1,600 new licenses, renewals, or amendments for existing materials licenses annually. The NRC conducts approximately 600 to 800 safety, and security inspections of materials licensees each year.*

### ***Nuclear Fuel Cycle***

- *Three uranium recovery sites are licensed by the NRC.*
- *The NRC licenses nine active fuel cycle facilities:*
  - *One uranium hexafluoride conversion facility (“ready-idle” status)*
  - *Five uranium fuel fabrication facilities*
  - *Two gas centrifuge uranium enrichment facilities (one operating and one under construction)*
  - *One depleted uranium deconversion facility (construction decision pending)*
- *The NRC issues about 45 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 1,100 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 (DOE) 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***

- *The NRC has issued 81 licenses for independent spent fuel storage installations in 35 States:*
  - *16 site-specific licenses (two of these facilities are licensed but were never built or operated) this includes the Interim Storage Partners CISF license that was issued September 13, 2021*
  - *65 general licenses*
- *An applications are under review for consolidated interim storage facilities for spent fuel in Lea County, NM.*

### ***Transportation—Principal Licensing and Inspection Activities***

- *Approximately 1,000 safety inspections of fuel, reactor, and materials licensees are conducted annually.*
- *Annually, 50–70 new, renewed, or amended container-design applications for the transport of nuclear materials are reviewed.*
- *Approximately 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 materials decommissioning program focuses on the termination of licenses that are not routine and that require complex activities.*
- *25 nuclear power reactors are in various stages of decommissioning (DECON or SAFSTOR).*
- *Three research and test reactors are permanently shut down and in various stages of decommissioning.*
- *11 complex materials sites are in various stages of decommissioning.*
- *Two fuel cycle facilities are in partial decommissioning, and one is undergoing decommissioning.*
- *Five NRC-licensed uranium recovery facilities are 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.*
- *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, which are conducted at each site 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.*



*The NRC Operations Center, located in the agency's Three White Flint North headquarters building, serves as the center when an emergency occurs or when the agency conducts exercises.*

