

NUREG-1100  
Volume 34, Rev. 1



**CONGRESSIONAL  
BUDGET  
JUSTIFICATION  
FISCAL YEAR  
2019**

---

## AVAILABILITY OF REFERENCE MATERIALS IN NRC PUBLICATIONS

### NRC Reference Material

As of November 1999, you may electronically access NUREG-series publications and other NRC records at NRC's Library at [www.nrc.gov/reading-rm.html](http://www.nrc.gov/reading-rm.html). Publicly released records include, to name a few, NUREG-series publications; *Federal Register* notices; applicant, licensee, and vendor documents and correspondence; NRC correspondence and internal memoranda; bulletins and information notices; inspection and investigative reports; licensee event reports; and Commission papers and their attachments.

NRC publications in the NUREG series, NRC regulations, and Title 10, "Energy," in the *Code of Federal Regulations* may also be purchased from one of these two sources.

#### 1. The Superintendent of Documents

U.S. Government Publishing Office  
Washington, DC 20402-0001  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov)  
Telephone: (202) 512-1800  
Fax: (202) 512-2104

#### . The National Technical Information Service

5301 Shawnee Road  
Alexandria, VA 22312-0002  
[www.ntis.gov](http://www.ntis.gov)  
1-800-553-6847 or, locally, (703) 605-6000

A single copy of each NRC draft report for comment is available free, to the extent of supply, upon written request as follows:

Address: **U.S. Nuclear Regulatory Commission**  
Office of Administration  
Multimedia, Graphics, and Storage &  
Distribution Branch  
Washington, DC 20555-0001  
E-mail: [distribution.resource@nrc.gov](mailto:distribution.resource@nrc.gov)  
Facsimile: (301) 415-2289

Some publications in the NUREG series that are posted at NRC's Web site address [www.nrc.gov/reading-rm/doc-collections/nuregs](http://www.nrc.gov/reading-rm/doc-collections/nuregs) are updated periodically and may differ from the last printed version. Although references to material found on a Web site bear the date the material was accessed, the material available on the date cited may subsequently be removed from the site.

### Non-NRC Reference Material

Documents available from public and special technical libraries include all open literature items, such as books, journal articles, transactions, *Federal Register* notices, Federal and State legislation, and congressional reports. Such documents as theses, dissertations, foreign reports and translations, and non-NRC conference proceedings may be purchased from their sponsoring organization.

Copies of industry codes and standards used in a substantive manner in the NRC regulatory process are maintained at—

#### The NRC Technical Library

Two White Flint North  
11545 Rockville Pike  
Rockville, MD 20852-2738

These standards are available in the library for reference use by the public. Codes and standards are usually copyrighted and may be purchased from the originating organization or, if they are American National Standards, from—

#### American National Standards Institute

11 West 42nd Street  
New York, NY 10036-8002  
[www.ansi.org](http://www.ansi.org)  
(212) 642-4900

Legally binding regulatory requirements are stated only in laws; NRC regulations; licenses, including technical specifications; or orders, not in NUREG-series publications. The views expressed in contractor-prepared publications in this series are not necessarily those of the NRC.

The NUREG series comprises (1) technical and administrative reports and books prepared by the staff (NUREG-XXXX) or agency contractors (NUREG/CR-XXXX), (2) proceedings of conferences (NUREG/CP-XXXX), (3) reports resulting from international agreements (NUREG/IA-XXXX), (4) brochures (NUREG/BR-XXXX), and (5) compilations of legal decisions and orders of the Commission and Atomic and Safety Licensing Boards and of Directors' decisions under Section 2.206 of NRC's regulations (NUREG-0750).

**DISCLAIMER:** This report was prepared as an account of work sponsored by an agency of the U.S. Government. Neither the U.S. Government nor any agency thereof, nor any employee, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for any third party's use, or the results of such use, of any information, apparatus, product, or process disclosed in this publication, or represents that its use by such third party would not infringe privately owned rights.

NUREG-1100  
Volume 34, Rev. 1



**CONGRESSIONAL  
BUDGET  
JUSTIFICATION  
FISCAL YEAR  
2019**

---



**CONTENTS**

**Executive Summary** ..... ix

**About the U.S. Nuclear Regulatory Commission**..... 1

**Proposed Fiscal Year 2019 Appropriations Legislation**..... 5

**Nuclear Reactor Safety**..... 11

    Operating Reactors ..... 13

    New Reactors..... 29

**Nuclear Materials and Waste Safety** ..... 39

    Fuel Facilities..... 41

    Nuclear Materials Users ..... 47

    Spent Fuel Storage and Transportation ..... 57

    Decommissioning and Low-Level Waste ..... 63

    High-Level Waste ..... 71

**Corporate Support** ..... 73

**Integrated University Program** ..... 83

**Annual Performance Plan** ..... 85

**Office of the Inspector General** ..... 107

**Appendix A: Full Cost of U.S. Nuclear Regulatory Commission Programs**..... 119

**Appendix B: Budget Authority by Function** ..... 121

**Appendix C: Estimated Fee Recovery** ..... 123

**Appendix D: Summary of Reimbursable Work** ..... 127

**Appendix E: Federal Information Technology Acquisition Reform Act Requirements** .. 129

**Appendix F: Summary of Planned Rulemaking Activities** ..... 131

**Appendix G: Obligations by Control Point**..... 141

**Appendix H: Report on Drug Testing**..... 143

**Appendix I: Glossary** ..... 145

**Appendix J: Acronym List** ..... 149



**FIGURES**

U.S. Nuclear Regulatory Commission FY 2014-FY 2019 Budget..... ix

NRC Organizational Chart ..... 2

Anticipated U.S. Operating Commercial Nuclear Power Reactors as of October 1, 2018..... 14

Operating Reactors Licensing Actions ..... 17

New Reactor Applications under Review ..... 32

Locations of Licensed Fuel Cycle Facilities ..... 42

Fuel Facilities Workload ..... 44

Agreement States ..... 48

Nuclear Materials Users Workload ..... 50

Licensed and Operating Independent Spent Fuel Storage Installations by State..... 58

Spent Fuel Storage and Transportation Workload..... 60

Locations of NRC-Regulated Sites Undergoing Decommissioning ..... 64

Uranium Recovery Licensed Facility and Major Licensing Actions..... 66

Uranium Mill Tailings Radiation Control Act of 1978 and Complex Materials Site..... 66

Research and Test Reactors and Power/Early Demonstration Reactors Undergoing  
Decommissioning..... 67



**TABLES**

Budget Authority and Full-Time Equivalents ..... x

Budget Authority by Appropriation ..... xi

Nuclear Reactor Safety ..... 11

Operating Reactors by Product Line ..... 13

License Renewal and Medical Isotope Facility Review Schedule ..... 17

Status of Transitioning Reactors from Operating to Decommissioning ..... 19

New Reactors by Product Line ..... 29

New Reactor Applications under Review ..... 33

Nuclear Materials and Waste Safety ..... 39

Fuel Facilities by Product Line ..... 41

Nuclear Materials Users by Product Line ..... 47

Spent Fuel Storage and Transportation by Product Line ..... 57

Decommissioning and Low-Level Waste by Product Line ..... 63

High-Level Waste by Product Line ..... 71

Corporate Support Budget Authority and Full-Time Equivalents ..... 73

Corporate Indirect and Travel by Product Line ..... 76

Integrated University Program ..... 83

Alignment of Resources to NRC Goals ..... 86

Supporting Business Lines and Strategic Plan Strategies ..... 105

NRC OIG Budget Authority and Full-Time Equivalents ..... 107

Audits Budget Authority ..... 107

Investigations Budget Authority ..... 109

NRC OIG Budget Resources Linked to OIG’s Strategic Goals ..... 113

Full Cost Budget Authority and Full-Time Equivalents ..... 119

Corporate Support by Business Line ..... 120

Budget Authority by Function ..... 121

Crosswalk of Business Lines' Allocation to Fee Classes ..... 124

Estimated Fee Recovery ..... 125

Summary of Reimbursable Work ..... 127

NRC IT Table: Major IT Investments ..... 130

Summary of Planned Rulemaking Activities ..... 131

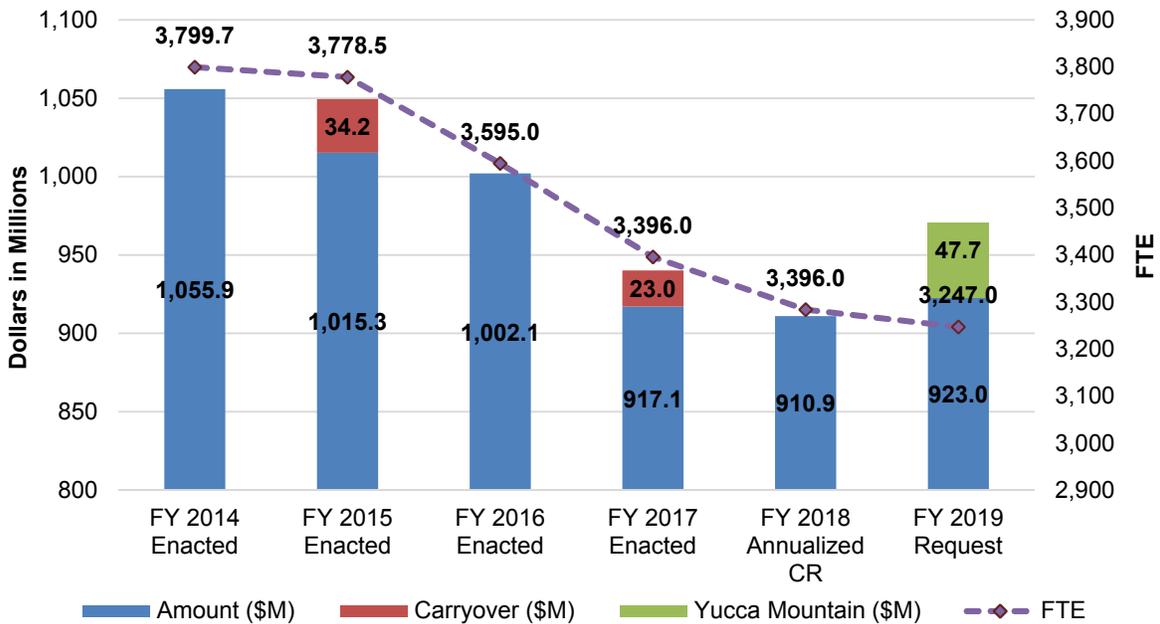
NRC Monthly Congressional Status Report ..... 142



**EXECUTIVE SUMMARY**

The U.S. Nuclear Regulatory Commission’s (NRC’s) fiscal year (FY) 2019 budget request is \$970.7 million, including 3,247 full-time equivalents (FTE). This request supports the NRC’s safety and security mission and reflects the agency’s continued commitment to improved effectiveness and efficiency. The FY 2019 request represents an overall increase of \$59.8 million, yet includes a decrease of 149 FTE when compared with the FY 2018 annualized continuing resolution (CR). This increase is a result of the resources requested for the High-Level Waste program and activities related to preparing to review advanced nuclear reactor technologies.

Consistent with Public Law (P.L.) 115-56, “Continuing Appropriations Act, 2018,” the annualized CR reflects the NRC’s FY 2017 Enacted budget of \$917.1 million, specified in P.L. 115-31, “Consolidated Appropriation Act, 2017,” (Act) reduced by 0.6791 percent. The terms and conditions specified in the Joint Explanatory Statement that accompanied the Act allowed for use of \$23 million in prior year unobligated carryover. Comparatively, the FY 2017 Enacted budget included \$5 million for advanced nuclear reactor technologies and \$15 million for the Integrated University Program, but did not provide funding for Yucca Mountain licensing activities.



**Figure 1: U.S. Nuclear Regulatory Commission  
FY 2014-FY 2019 Budget**

## EXECUTIVE SUMMARY

As shown in Figure 1, since FY 2014, the agency budget, excluding resources for Yucca Mountain licensing activities, has been reduced by 13 percent, including a reduction of 18 percent in FTE.

Budget Authority and Full-Time Equivalents (Dollars in Millions)								
Business Line/ Major Program	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Operating Reactors	364.0	1,548.9	353.8	1,593.0	375.6	1,531.0	21.8	(62.0)
New Reactors	96.1	433.3	95.2	455.0	99.1	394.0	3.9	(61.0)
<b>Nuclear Reactor Safety</b>	<b>\$460.2</b>	<b>1,982.3</b>	<b>\$449.0</b>	<b>2,048.0</b>	<b>\$474.8</b>	<b>1,925.0</b>	<b>\$25.8</b>	<b>(123.0)</b>
Fuel Facilities	24.5	109.2	24.7	113.0	25.2	107.0	0.5	(6.0)
Nuclear Materials Users	64.4	228.5	63.5	238.0	60.6	215.0	(2.9)	(23.0)
Spent Fuel Storage and Transportation	24.8	99.6	22.3	102.0	24.8	100.0	2.5	(2.0)
Decommissioning and Low- Level Waste	26.8	111.8	26.4	115.0	25.4	104.0	(1.0)	(11.0)
High-Level Waste	0.9	1.3	0.0	0.0	47.7	124.0	47.7	124.0
<b>Nuclear Materials and Waste Safety</b>	<b>\$141.3</b>	<b>550.6</b>	<b>\$136.9</b>	<b>568.0</b>	<b>\$183.7</b>	<b>650.0</b>	<b>\$46.8</b>	<b>82.0</b>
<b>Major Program Subtotal</b>	<b>\$601.5</b>	<b>2,532.8</b>	<b>\$585.9</b>	<b>2,616.0</b>	<b>\$658.5</b>	<b>2,575.0</b>	<b>\$72.6</b>	<b>(41.0)</b>
Corporate Support	306.7	641.3	298.1	717.0	299.6	609.0	1.5	(108.0)
Integrated University Program	15.0	0.0	14.9	0.0	0.0	0.0	(14.9)	0.0
<b>Subtotal</b>	<b>\$923.1</b>	<b>3,174.2</b>	<b>\$898.9</b>	<b>3,333.0</b>	<b>\$958.1</b>	<b>3,184.0</b>	<b>\$59.2</b>	<b>(149.0)</b>
Inspector General	12.2	61.1	12.0	63.0	12.6	63.0	0.6	0.0
<b>Total</b>	<b>\$935.3</b>	<b>3,235.2</b>	<b>\$910.9</b>	<b>3,396.0</b>	<b>\$970.7</b>	<b>3,247.0</b>	<b>\$59.8</b>	<b>(149.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

Resources requested for the Nuclear Reactor Safety Program increased overall by \$25.8 million, yet include a decrease of 123 FTE. The increase in resources in the Nuclear Reactor Safety Program is largely as a result of research activities funded through the use of authorized prior year unobligated carryover in FY 2017 and reflects a change in the fund source. In addition, resources increase as a result of the higher cost of salaries and benefits in FY 2018. Finally, resources for the Nuclear Reactor Safety Program include \$10.3 million for the development of an infrastructure for regulatory review of advanced nuclear reactor technologies.

Resources for the Nuclear Materials and Waste Safety Program increased by \$46.8 million, including 82 FTE. The Nuclear Materials and Waste Safety Program budget request includes \$47.7 million from the Nuclear Waste Fund for licensing activities related to the proposed Yucca Mountain deep geologic repository for the disposal of spent nuclear fuel and other high-level radioactive waste.

Resources requested for Corporate Support constitute 31 percent of the agency’s total budget and reflect an overall increase of \$1.5 million, yet include a decrease of 108 FTE, when compared with the FY 2018 annualized CR.

The Office of the Inspector General’s (OIG’s) component of the FY 2019 proposed budget is \$12.6 million, including 63 FTE, of which \$11.5 million is for auditing and investigation activities for NRC programs and \$1.1 million is for the auditing and investigation activities of the Defense Nuclear Facilities Safety Board (DNFSB).

<b>Budget Authority by Appropriation</b>			
(Dollars in Millions)			
	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>	<b>Changes from FY 2018</b>
<b>NRC Appropriation</b>	<b>\$M</b>	<b>\$M</b>	<b>\$M</b>
<b>Salaries and Expenses (S&amp;E)</b>			
Budget Authority	898.9	958.1	59.2
Offsetting Fees	790.1	805.0	14.9
<b>Net Appropriated S&amp;E</b>	<b>\$108.7</b>	<b>\$153.0</b>	<b>\$44.3</b>
<b>Office of the Inspector General (OIG)</b>			
Budget Authority	12.0	12.6	0.6
Offsetting Fees	10.0	10.4	0.4
<b>Net Appropriated OIG</b>	<b>\$2.1</b>	<b>\$2.3</b>	<b>\$0.2</b>
<b>Total NRC</b>			
Budget Authority	910.9	970.7	59.8
Offsetting Fees	800.1	815.4	15.3
<b>Total Net Appropriated</b>	<b>\$110.8</b>	<b>\$155.3</b>	<b>\$44.5</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

In accordance with the provisions of the Omnibus Budget Reconciliation Act of 1990 (OBRA-90), as amended, the NRC’s FY 2019 budget request provides for approximately 90-percent fee recovery, less amounts appropriated from the Nuclear Waste Fund, and amounts appropriated for generic homeland security activities and for waste incidental to reprocessing activities under Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005. The FY 2019 appropriations language will also exclude from OBRA-90’s fee recovery requirement amounts appropriated for OIG services for DNFSB.

The NRC will recover \$815.4 million of the FY 2019 budget from fees assessed to NRC licensees. This will result in a net appropriation of \$155.3 million, with \$47.7 million to be derived from the Nuclear Waste Fund, which is an increase of \$44.5 million in net appropriations when compared with the FY 2018 annualized CR. The increase in the net appropriation is primarily a result of the requested Yucca Mountain licensing resources, which are not fee-billable and require resources from the Nuclear Waste Fund. To increase transparency, a statement is included in the changes section of each programmatic business line chapter regarding how the budgeted resources impact fees.

## **EXECUTIVE SUMMARY**

---

Appendix A, “Full Cost of U.S. Nuclear Regulatory Commission Programs,” of this request provides the full cost of NRC programs.

This budget request reflects the agency’s continued commitment to improving effectiveness, efficiency, and accountability, including identifying opportunities to transform agency processes and increase the use of risk information in regulatory decisionmaking. The FY 2019 budget request reflects a reduction of approximately \$4 million, primarily as a result of 20 FTE in the Mission Support and Supervisors Product Line due to standardization and centralization of these functions. Additional reductions are achieved by the planned transition of financial services to a Federal shared service provider and reductions in rent as the agency reduces its footprint of office space. The budget also includes investments to support future efficiencies such as planned renovations in the regional offices to allow for additional office space reductions and efforts to maximize employee performance by applying competency modeling.

### **SIGNIFICANT AGENCYWIDE ACCOMPLISHMENTS IN FY 2017**

The NRC’s significant agencywide accomplishments include the following:

- Continued to oversee the safe and secure operation of nuclear power plants and fuel cycle facilities, as well as the possession and use of radioactive materials.
- Conducted hundreds of public meetings across the country, as part of our efforts to maintain regular and transparent communications with our stakeholders.
- Delivered major products for each of the 19 Project Aim tasks, as we continue to pursue our ongoing commitment to efficiency, effectiveness and agility.
- Finalized the NRC Strategic Plan for FY 2018–2022.
- Initiated an agencywide action plan designed to build a climate of trust through strengthening our positive environment for raising concerns; promoting a culture of fairness, empowerment and respect; and establishing clear expectations and accountability for leaders.
- Created a Center of Expertise (COE) within the Office of Nuclear Material Safety and Safeguards in the area of rulemaking. The COE provides for effective oversight of the rulemaking process, and ensures that rulemaking activities are accomplished in an efficient, effective, and transparent manner.

## **ABOUT THE U.S. NUCLEAR REGULATORY COMMISSION**

### **Mission**

**To license and regulate the Nation’s civilian use of radioactive material to protect public health and safety, promote the common defense and security, and protect the environment.**

The U.S. Nuclear Regulatory Commission (NRC) is an independent Federal agency established by Congress. It 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 and the export or import of radioactive materials. The NRC regulates industries within the United States and works with agencies around the world to enhance global nuclear safety and security. The NRC’s key regulatory functions include the following:

- Developing regulations and guidance, including participating in consensus standards development.
- Licensing and certifying the use of nuclear materials, the operation of nuclear facilities, and the decommissioning of nuclear facilities.
- Inspecting and assessing licensee operations and nuclear facilities, including incident response and investigation, and taking enforcement actions when necessary.
- Evaluating domestic and international operational experience and taking generic action when appropriate.
- Conducting research, holding hearings, and obtaining independent insights that support sound regulatory decisionmaking.

The NRC’s Commission has up to five members nominated by the President and confirmed by the Senate for 5-year terms. The President designates one member to serve as Chairman. The Chairman is the principal executive officer and spokesperson for the Commission. As a collegial body, the Commission formulates policies and regulations governing the safety and security of nuclear reactors and materials, issues orders to licensees, and adjudicates legal matters brought before it. The Executive Director for Operations carries out the policies and decisions of the Commission and directs the activities of the program and regional offices (see Figure 2).

# ABOUT THE U.S. NUCLEAR REGULATORY COMMISSION

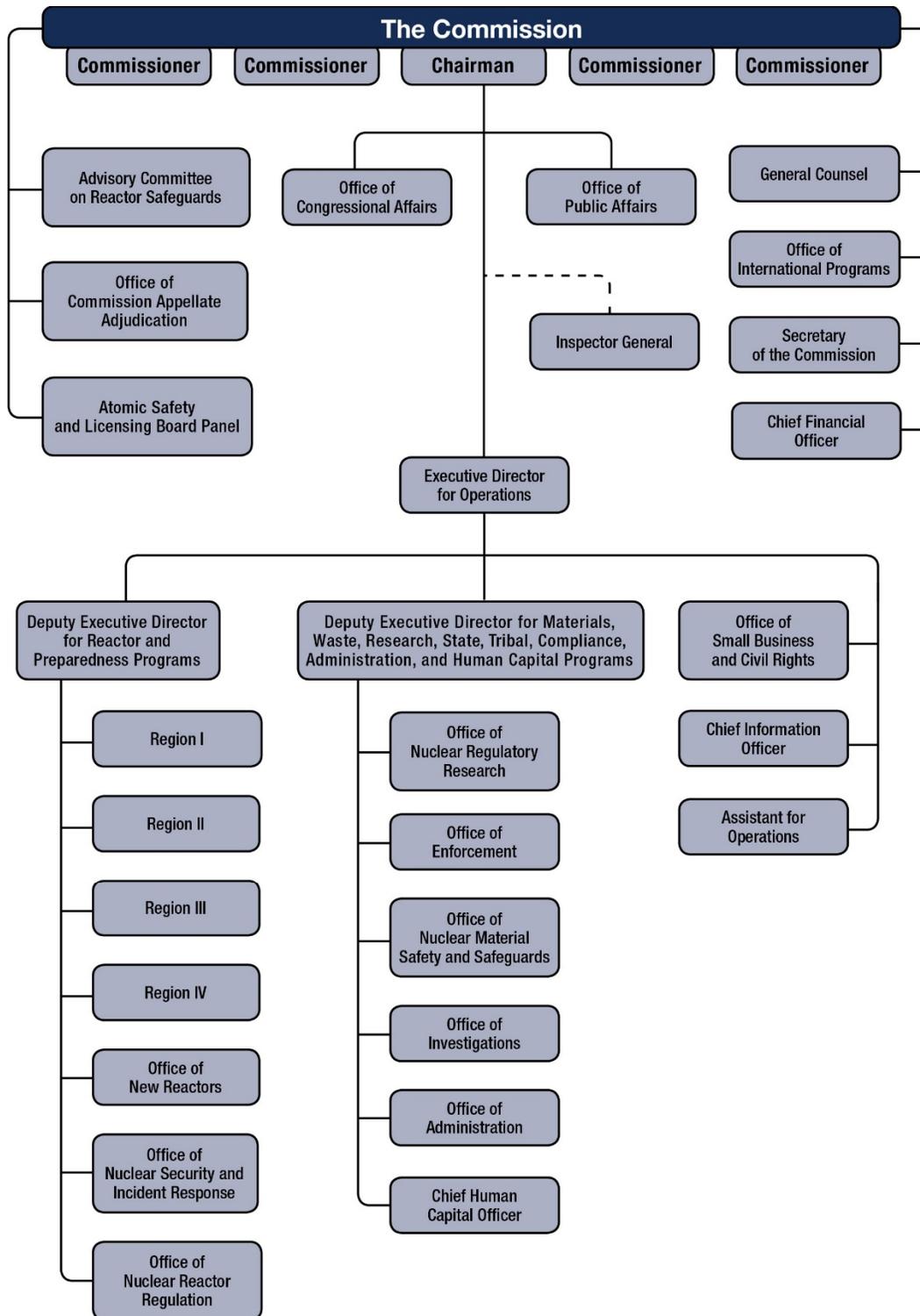


Figure 2: NRC Organizational Chart

## **ABOUT THE U.S. NUCLEAR REGULATORY COMMISSION**

The NRC is headquartered in Rockville, MD. The agency has four regional offices, located in King of Prussia, PA (Region I); Atlanta, GA (Region II); Lisle, IL (Region III); and Arlington, TX (Region IV). The major program offices within the NRC include the following:

- The *Office of Nuclear Reactor Regulation* licenses and oversees activities for existing nuclear power reactors and research and test reactors.
- The *Office of New Reactors* licenses and oversees the design, siting, licensing, and construction of new commercial nuclear power reactors.
- The *Office of Nuclear Regulatory Research* provides independent expertise and information for making timely regulatory judgments, anticipating potentially significant safety problems, and resolving safety issues. It helps develop technical regulations and standards and collects, analyzes, and disseminates information about the safety of commercial nuclear power plants and certain nuclear materials activities.
- The *Office of Nuclear Material Safety and Safeguards* licenses and oversees the production of commercial nuclear fuel; uranium-recovery activities; decommissioning of nuclear facilities; and the use of radioactive materials in medical, industrial, academic, and commercial applications. It regulates safe storage, transportation, and disposal of high- and low-level radioactive waste and spent nuclear fuel. The office also works with other Federal agencies and State, Tribal, and local governments on regulatory matters.
- The *Office of Nuclear Security and Incident Response* oversees the implementation of agency security policy for nuclear facilities and users of radioactive material and coordinates with other Federal agencies and international organizations on security issues. This office also maintains the NRC's emergency preparedness and incident response programs.
- The *regional offices* conduct inspections and investigations (in conjunction with the *Office of Investigations*); take enforcement actions (in coordination with the *Office of Enforcement*); and maintain emergency response programs for nuclear reactors, fuel facilities, and materials licensees. In addition, the regions carry out licensing for certain materials licensees.



## **PROPOSED FISCAL YEAR 2019 APPROPRIATIONS LEGISLATION**

The NRC's proposed appropriation legislation for Fiscal Year (FY) 2019 is as follows:

### **SALARIES AND EXPENSES**

For expenses necessary for the Commission in carrying out the purposes of the Energy Reorganization Act of 1974 and the Atomic Energy Act of 1954, \$958,050,000, including official representation expenses not to exceed \$25,000, to remain available until expended: *Provided*, That of the amount appropriated herein, \$47,700,000 shall be derived from the Nuclear Waste Fund: *Provided further*, That of the amount appropriated herein, not more than \$9,500,000 may be made available for salaries, travel, and other support costs for the Office of the Commission, to remain available until September 30, 2020: *Provided further*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$805,019,000 in fiscal year 2019 shall be retained and used for necessary salaries and expenses in this account, notwithstanding 31 U.S.C. 3302, and shall remain available until expended: *Provided further*, That the sum herein appropriated shall be reduced by the amount of revenues received during fiscal year 2019 so as to result in a final fiscal year 2019 appropriation estimated at not more than \$153,031,000.

### **OFFICE OF THE INSPECTOR GENERAL**

For expenses necessary for the Office of Inspector General in carrying out the provisions of the Inspector General Act of 1978, \$12,609,000, to remain available until September 30, 2020: *Provided*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$10,355,000 in fiscal year 2019 shall be retained and be available until September 30, 2020, for necessary salaries and expenses in this account, notwithstanding section 3302 of title 31, United States Code: *Provided further*, That the sum herein appropriated shall be reduced by the amount of revenues received during fiscal year 2019 so as to result in a final fiscal year 2019 appropriation estimated at not more than \$2,254,000: *Provided further*, That of the amounts appropriated under this heading, \$1,103,000 shall be for Inspector General services for the Defense Nuclear Facilities Safety Board, which shall not be available from fee revenues.

### **ANALYSIS OF PROPOSED FY 2019 APPROPRIATIONS LEGISLATION**

The analysis of the NRC's proposed appropriations legislation for FY 2019 is as follows:

#### **SALARIES AND EXPENSES**

##### **1. FOR EXPENSES NECESSARY FOR THE COMMISSION IN CARRYING OUT THE PURPOSES OF THE ENERGY REORGANIZATION ACT OF 1974 AND THE ATOMIC ENERGY ACT OF 1954:**

The NRC was established by the Energy Reorganization Act of 1974, as amended (42 United States Code (USC) 5841). This act abolished the Atomic Energy Commission (AEC) and transferred to the NRC all of the AEC's licensing and related regulatory functions. These functions included those of the Atomic Safety and Licensing Board Panel and the Advisory Committee on Reactor Safeguards; responsibilities for licensing and regulating nuclear facilities

## **PROPOSED FY 2019 APPROPRIATIONS LEGISLATION**

---

and materials; and conducting research for the purpose of confirmatory assessment related to licensing, regulation, and other activities, including research related to nuclear materials safety and regulation under the provisions of the Atomic Energy Act of 1954, as amended (42 USC 2011 et seq.).

### **2. INCLUDING OFFICIAL REPRESENTATION EXPENSES:**

47 Comp. Gen. 657, 43 Comp. Gen. 305

This language is required because of the established rule restricting an agency from charging appropriations with the cost of official representation unless the appropriations involved are specifically available for such purpose. Congress has appropriated funds for official representation expenses to the NRC and its predecessor, the AEC, each year since FY 1950.

### **3. TO REMAIN AVAILABLE UNTIL EXPENDED:**

Title 31 USC 1301 provides that no regular, annual appropriation shall be construed to be permanent or available continuously unless the appropriation expressly provides that it is available after the fiscal year covered by the law in which it appears (or is for specific uses not applicable here).

### **4. SHALL BE DERIVED FROM THE NUCLEAR WASTE FUND:**

Title 42 USC 10131(b)(4) provides for the establishment of a Nuclear Waste Fund to ensure that the costs of carrying out activities relating to the disposal of high-level radioactive waste and spent nuclear fuel will be borne by the persons responsible for generating such waste and spent fuel.

Title 42 USC 10134 specifically requires the NRC to consider an application for a repository for the disposal of high-level radioactive waste and spent nuclear fuel and sets forth certain licensing procedures. Title 42 USC 10133 also assigns review responsibilities to the NRC in the steps leading to submission of the license application. Thus, the Nuclear Waste Policy Act of 1982, as amended, establishes the NRC's responsibility throughout the repository siting process, culminating in the requirement for NRC licensing as a prerequisite to construction and operation of the repository.

Title 42 USC 10222(d) specifies that expenditures from the Nuclear Waste Fund can be used for purposes of radioactive waste disposal activities, including identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any repository constructed under the Nuclear Waste Policy Act of 1982, and for administrative costs of the high-level radioactive waste disposal program.

### **5. REVENUES FROM LICENSING FEES, INSPECTION SERVICES, AND OTHER SERVICES AND COLLECTIONS SHALL BE RETAINED AND USED FOR NECESSARY SALARIES AND EXPENSES IN THIS ACCOUNT, NOTWITHSTANDING 31 U.S.C. 3302, AND SHALL REMAIN AVAILABLE UNTIL EXPENDED:**

Under Title V of the Independent Offices Appropriation Act, 1952, Public Law (PL) 82-137, the NRC is authorized to collect user fees from any person who receives a service or thing of value

from the Commission. Pursuant to 42 USC 2214 (section 6101 of the Omnibus Budget Reconciliation Act of 1990 (OBRA-90)), the NRC is required to assess and collect user fees from any person who receives a service or thing of value from the Commission and annual charges from NRC licensees and certificate holders, with the exception of the holders of any license for a federally owned research reactor used primarily for educational training and academic research purposes. In accordance with amendments to 42 USC 2214, enacted in the Energy Policy Act of 2005, and consistent with this appropriations request, the aggregate annual amount of collected fees shall approximate 90 percent of the Commission's budget authority, less amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the Commission to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, PL 108-375, and amounts appropriated to the Commission for generic homeland security activities.

Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 assigned new responsibilities to the NRC for waste determinations and monitoring of waste disposal actions for material stored at the U.S. Department of Energy sites in South Carolina and Idaho. Section 3116(b)(4) requires that, beginning with the FY 2006 budget, the Commission include in its budget justification materials submitted to Congress the amounts required, not offset by revenues, for performance of its responsibilities under Section 3116. The \$1,303,000 requested to implement Section 3116 is excluded from OBRA-90's fee recovery requirement.

Section 637 of the Energy Policy Act of 2005, PL 109-58, modified the NRC's fee legislation in 42 USC 2214 to exclude the amounts appropriated to the Commission for homeland security activities from OBRA-90's fee recovery requirement, except for reimbursable costs of fingerprinting and background checks and the costs of conducting security inspections. The \$14,582,000 requested for generic homeland security activities is thus excluded from OBRA-90's fee recovery requirement.

The aggregate amount of license fees and annual charges to be collected for FY 2019 approximates 90 percent of the Commission's budget authority, less the amount requested to be derived from the Nuclear Waste Fund, the amount requested to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and the amount requested for generic homeland security activities pursuant to Section 637 of the Energy Policy Act of 2005.

Title 31 USC 3302 requires the NRC to deposit all revenues collected to miscellaneous receipts of the Treasury unless specifically authorized by law to retain and use such revenues.

**6. THE SUM HEREIN APPROPRIATED SHALL BE REDUCED BY THE AMOUNT OF REVENUES RECEIVED:**

Pursuant to 42 USC 2214, the NRC is required to assess and collect user fees from any person who receives a service or thing of value from the Commission and annual charges from NRC licensees and certificate holders, with the exception of the holders of any license for a federally owned research reactor used primarily for educational training and academic research purposes. In accordance with amendments to 42 USC 2214, enacted in the Energy Policy Act of 2005, and consistent with this appropriations request, the aggregate annual amount of collected fees shall approximate 90 percent of the Commission's budget authority, less amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the Commission to implement Section 3116 of the Ronald W. Reagan National Defense

## **PROPOSED FY 2019 APPROPRIATIONS LEGISLATION**

---

Authorization Act for Fiscal Year 2005, and amounts appropriated to the Commission for generic homeland security activities.

### **OFFICE OF THE INSPECTOR GENERAL**

#### **7. FOR EXPENSES NECESSARY FOR THE OFFICE OF INSPECTOR GENERAL IN CARRYING OUT THE PROVISIONS OF THE INSPECTOR GENERAL ACT OF 1978:**

PL 100-504 amended the Inspector General Act of 1978, PL 95-452, 5 USC app., to establish an Office of the Inspector General (OIG) in the NRC effective in April 1989, and to require the establishment of a separate appropriation account to fund the OIG.

#### **8. TO REMAIN AVAILABLE UNTIL SEPTEMBER 30, 2020:**

In order for an appropriation to remain available for 2 fiscal years, 31 USC 1301 requires that the appropriation expressly provide that it is available after the fiscal year covered by the law in which it appears.

#### **9. REVENUES FROM LICENSING FEES, INSPECTION SERVICES, AND OTHER SERVICES AND COLLECTIONS SHALL BE RETAINED AND BE AVAILABLE UNTIL SEPTEMBER 30, 2020, FOR NECESSARY SALARIES AND EXPENSES IN THIS ACCOUNT, NOTWITHSTANDING SECTION 3302 OF TITLE 31, UNITED STATES CODE:**

Under 31 USC 9701, the NRC is authorized to collect user fees from any person who receives a service or thing of value from the Commission. Pursuant to 42 USC 2214, the NRC is required to assess and collect user fees from any person who receives a service or thing of value from the Commission and annual charges from NRC licensees and certificate holders, with the exception of the holders of any license for a federally owned research reactor used primarily for educational training and academic research purposes. In accordance with amendments to 42 USC 2214, enacted in the Energy Policy Act of 2005, and consistent with this appropriations request, the aggregate annual amount of collected fees shall approximate 90 percent of the Commission's budget authority, less amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the Commission to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and amounts appropriated to the Commission for generic homeland security activities.

Title 31 USC 3302 requires the NRC to deposit all revenues collected to miscellaneous receipts of the Treasury unless specifically authorized by law to retain and use such revenue.

#### **10. THE SUM HEREIN APPROPRIATED SHALL BE REDUCED BY THE AMOUNT OF REVENUES RECEIVED:**

Pursuant to 42 USC 2214, the NRC is required to assess and collect user fees from any person who receives a service or thing of value from the Commission and annual charges from NRC licensees and certificate holders, with the exception of the holders of any license for a federally owned research reactor used primarily for educational training and academic research purposes. In accordance with amendments to 42 USC 2214, enacted in the Energy Policy Act of 2005, and consistent with this appropriations request, the aggregate annual amount of collected fees shall approximate 90 percent of the Commission's budget authority, less amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the

Commission to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and amounts appropriated to the Commission for generic homeland security activities.

**11. AMOUNTS APPROPRIATED FOR INSPECTOR GENERAL SERVICES FOR THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD, WHICH SHALL NOT BE AVAILABLE FROM FEE REVENUES:**

Pursuant to 42 USC 2214, the NRC is required to assess and collect user fees from any person who receives a service or thing of value from the Commission and annual charges from NRC licensees and certificate holders, with the exception of the holders of any license for a federally owned research reactor used primarily for educational training and academic research purposes. In accordance with amendments to 42 USC 2214, enacted in the Energy Policy Act of 2005, and consistent with this appropriations request, the aggregate annual amount of collected fees shall approximate 90 percent of the Commission's budget authority, less amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the Commission to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and amounts appropriated to the Commission for generic homeland security activities. This proposed statutory language makes clear that the \$1,103,000 requested to provide Inspector General Services for the Defense Nuclear Facilities Safety Board is excluded from OBRA-90's fee recovery requirement in the same manner as amounts appropriated to the Commission from the Nuclear Waste Fund, amounts appropriated to the Commission to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and amounts appropriated to the Commission for generic homeland security activities. The Consolidated Appropriations Act, 2014 (PL 113-76) and the Consolidated and Further Continuing Appropriations Act, 2015 (PL 113-235) authorize the NRC's Inspector General to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the NRC's Inspector General, as the Inspector General exercises under the Inspector General Act of 1978 (5 USC App.) with respect to the NRC.



**NUCLEAR REACTOR SAFETY**

<b>Nuclear Reactor Safety</b> (Dollars in Millions)								
<b>Business Line</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Operating Reactors	364.0	1,548.9	353.8	1,593.0	375.6	1,531.0	21.8	(62.0)
New Reactors	96.1	433.3	95.2	455.0	99.1	394.0	3.9	(61.0)
<b>Total</b>	<b>\$460.2</b>	<b>1,982.3</b>	<b>\$449.0</b>	<b>2,048.0</b>	<b>\$474.8</b>	<b>1,925.0</b>	<b>\$25.8</b>	<b>(123.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The NRC’s Nuclear Reactor Safety Program encompasses licensing and overseeing civilian nuclear power, research and test reactors, and medical isotope production facilities in a manner that adequately protects public health and safety. This program also provides reasonable assurance of the security of facilities and protection against radiological sabotage. This program contributes to the NRC’s safety and security strategic goals through the activities of the Operating Reactors and New Reactors Business Lines that regulate existing and new nuclear reactors to ensure their safe and secure operation.

Overall resources requested in the fiscal year (FY) 2019 budget for the Nuclear Reactor Safety Program are \$474.8 million, including 1,925 full-time equivalents (FTE). This funding level represents an overall funding increase of \$25.8 million, including a decrease of 123 FTE, when compared with the FY 2018 Annualized Continuing Resolution. The increase in the Operating Reactors Business Line is largely a result of research activities funded through the use of authorized prior year unobligated carryover in FY 2017 and reflects a change in the fund source. In addition, resources increase as a result of the increase in salaries and benefits in FY 2018. This budget includes \$10.3 million for the development of a regulatory infrastructure for advanced nuclear reactor technologies.

The budget request reflects ongoing work on the agency reform strategy related to the merger of the Office of Nuclear Reactor Regulation and the Office of New Reactors.



OPERATING REACTORS

Operating Reactors by Product Line (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Event Response	13.5	38.2	14.1	40.0	18.0	48.0	3.9	8.0
Generic Homeland Security	1.5	8.6	1.7	9.0	1.6	8.0	(0.1)	(1.0)
International Activities	3.3	18.0	3.1	18.0	3.6	19.0	0.5	1.0
Licensing	72.7	386.2	80.4	392.0	82.6	376.0	2.2	(16.0)
Oversight	118.7	536.2	114.7	562.0	114.2	534.0	(0.5)	(28.0)
Research	57.6	127.9	43.0	124.0	57.5	133.0	14.5	9.0
Rulemaking	9.7	50.9	9.9	51.0	9.6	47.0	(0.3)	(4.0)
Mission Support and Supervisors	65.5	359.5	65.6	371.0	65.2	340.0	(0.4)	(31.0)
Training	8.9	23.4	7.9	26.0	8.9	26.0	1.0	0.0
Travel	12.6	0.0	13.5	0.0	14.3	0.0	0.8	0.0
<b>Total</b>	<b>\$364.0</b>	<b>1,548.9</b>	<b>\$353.8</b>	<b>1,593.0</b>	<b>\$375.6</b>	<b>1,531.0</b>	<b>\$21.8</b>	<b>(62.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

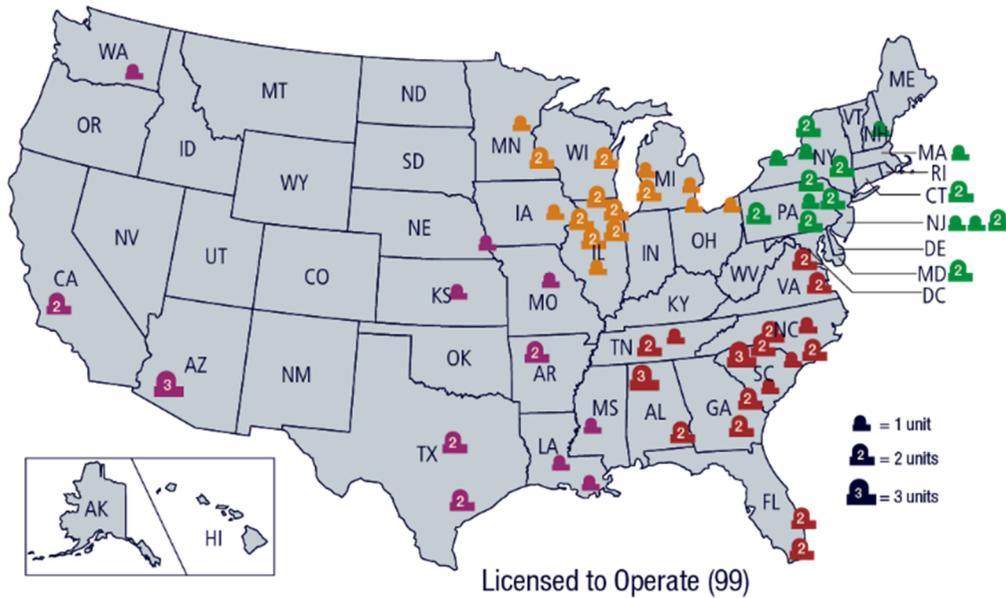
The Operating Reactors Business Line encompasses the regulation of 99<sup>1</sup> operating civilian nuclear power reactors and 31 research and test reactors in a manner that provides for adequate protection of public health and safety and the environment and for reasonable assurance of security.

The NRC establishes regulatory requirements for the design, construction, operation, and security of nuclear power plants, research and test reactors, and other nonpower production and utilization facilities (e.g., medical isotope production facilities), in accordance with the provisions of the Atomic Energy Act of 1954, as amended. Through the Operating Reactors Business Line activities, the NRC implements programs to meet its Safety and Security strategic goals in protecting both the public and workers from the radiation hazards of nuclear reactors. To ensure that plants and facilities are operating safely, the NRC licenses the plants to operate and the personnel who operate the plants and facilities and establishes technical specifications for the operation of each plant and facility. The NRC also supports nuclear safety through rulemaking and research, enforcement, and international activities. The NRC provides continuing oversight of civilian nuclear reactors and verification of operator adherence to the NRC’s rules and regulations. The NRC has established requirements to bolster the security of

<sup>1</sup> The shutdown of Pilgrim Nuclear Power Station, is not included because it is estimated to shut down on May 1, 2019, and the shutdown of Three Mile Island Nuclear Station, Unit 1 is not included because it is estimated to shut down on September 30, 2019.

## OPERATING REACTORS

the Nation's nuclear facilities. Nuclear power plants must be able to defend successfully against a set of hypothetical threats that the agency refers to as the design-basis threat. These hypothetical threats challenge a plant's physical security, personnel security, and cybersecurity. The agency continuously evaluates this set of hypothetical threats against real-world intelligence to ensure safety and security.



### REGION I

- CONNECTICUT
  - Millstone 2 and 3
- MARYLAND
  - Calvert Cliffs 1 and 2
- MASSACHUSETTS
  - Pilgrim
- NEW HAMPSHIRE
  - Seabrook
- NEW JERSEY
  - Hope Creek
  - Oyster Creek
  - Salem 1 and 2
- NEW YORK
  - FitzPatrick
  - Ginna
  - Indian Point 2 and 3
  - Nine Mile Point 1 and 2
- PENNSYLVANIA
  - Beaver Valley 1 and 2
  - Limerick 1 and 2
  - Peach Bottom 2 and 3
  - Susquehanna 1 and 2
  - Three Mile Island 1

### REGION II

- ALABAMA
  - Browns Ferry 1, 2, and 3
  - Farley 1 and 2
- FLORIDA
  - St. Lucie 1 and 2
  - Turkey Point 3 and 4
- GEORGIA
  - Edwin I. Hatch 1 and 2
  - Vogtle 1 and 2
- NORTH CAROLINA
  - Brunswick 1 and 2
  - McGuire 1 and 2
  - Harris 1
- SOUTH CAROLINA
  - Catawba 1 and 2
  - Oconee 1, 2, and 3
  - Robinson 2
  - Summer
- TENNESSEE
  - Sequoyah 1 and 2
  - Watts Bar 1 and 2\*
- VIRGINIA
  - North Anna 1 and 2
  - Surry 1 and 2

### REGION III

- ILLINOIS
  - Braidwood 1 and 2
  - Byron 1 and 2
  - Clinton
  - Dresden 2 and 3
  - LaSalle 1 and 2
  - Quad Cities 1 and 2
- IOWA
  - Duane Arnold
- MICHIGAN
  - Cook 1 and 2
  - Fermi 2
  - Palisades
- MINNESOTA
  - Monticello
  - Prairie Island 1 and 2
- OHIO
  - Davis-Besse
  - Perry
- WISCONSIN
  - Point Beach 1 and 2

### REGION IV

- ARKANSAS
  - Arkansas Nuclear 1 and 2
- ARIZONA
  - Palo Verde 1, 2, and 3
- CALIFORNIA
  - Diablo Canyon 1 and 2
- KANSAS
  - Wolf Creek 1
- LOUISIANA
  - River Bend 1
  - Waterford 3
- MISSISSIPPI
  - Grand Gulf
- MISSOURI
  - Callaway
- NEBRASKA
  - Cooper
- TEXAS
  - Comanche Peak 1 and 2
  - South Texas Project 1 and 2
- WASHINGTON
  - Columbia

**Figure 3: Anticipated U.S. Operating Commercial Nuclear Power Reactors as of October 1, 2018**

## **CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION**

The increase in resources is largely a result of research activities funded through the use of authorized prior year unobligated carryover in FY 2017 and reflects a change in the fund source. In addition, resources increase to support the following activities: (1) potassium iodide replenishment for nine States; (2) development of the accident-tolerant fuel (ATF) licensing process, and ATF confirmatory research and support; (3) one new subsequent license renewal (SLR) application (Surry) and the continuing review of two SLR applications (Peach Bottom and an “unnamed plant”—proprietary letter received); (4) increased risk-informed licensing activities and license amendment requests, work related to the risk-informed steering committee, and knowledge management and training to support increasing the staff’s capabilities to use risk information in decisionmaking; (5) research activities on safety and security of digital systems, materials degradation, cable aging, and concrete degradation; (6) increased workload to consolidate High-Performance Computing services and migrate to the cloud; and (7) increased workload to enhance the Replacement Reactor Program System (R-RPS) to support New Reactor inspection/licensing and regulatory changes and functionality currently provided by various New Reactor systems.

These increases are partially offset by decreases resulting from (1) a reduction in Fukushima Near-Term Task Force (NTTF) Tier 1 work related to the Mitigating Strategies Order, reevaluations of flooding and seismic hazards, and the Hardened Vents Order, as well as the completion of Tier 2 and 3 work; (2) a reduction in license renewal inspections; (3) a reduction in force-on-force inspections as a result of plants in decommissioning; (4) the closure of the Fort Calhoun Station; (5) the rebaselining of agency resources; and (6) a reduced workload to implement the R-RPS and maintain Legacy RPS (which will be decommissioned in FY 2018). Although the NRC reduced its budget request as indicated, those reductions only partially offset the increase associated with the increase in salaries and benefits in FY 2018.

Generally, resources budgeted in the Licensing and Oversight Product Lines impact fees for service. All other resources impact annual fees.

## **MAJOR ACTIVITIES**

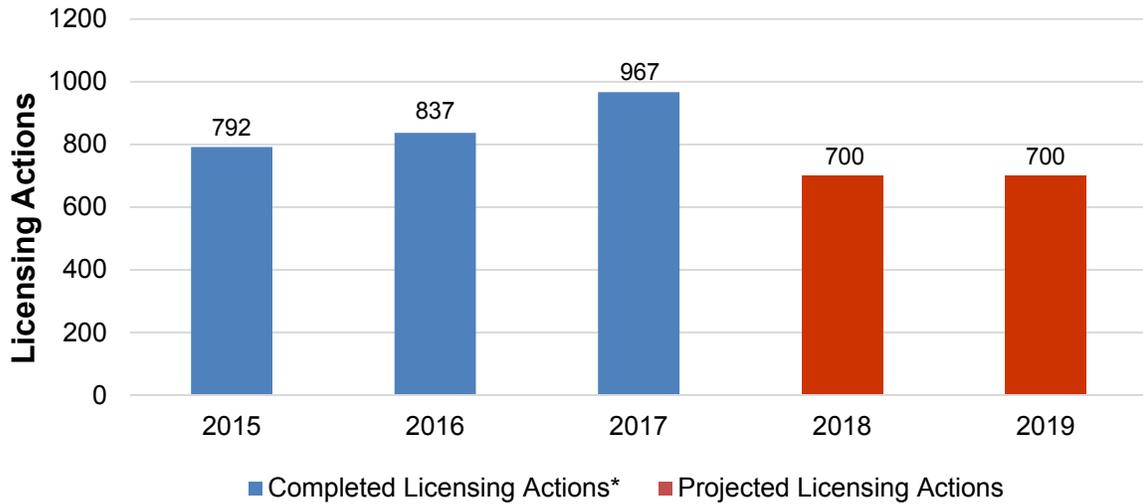
The major activities within the Operating Reactors Business Line include the following:

- Ensure that licensed operating nuclear power reactors operate safely and securely and in accordance with the NRC’s rules, regulations, and license requirements. The Reactor Oversight Process uses both NRC inspection findings and performance indicators from licensees to assess the safety performance of each plant within a regulatory framework of seven cornerstones of safety and security.
- Conduct license renewal reviews in accordance with published schedules, including completing the review of the initial license renewal for one unit, initiating the review of one SLR application, and continuing the review of two SLR applications.
- Support the continued implementation of the Tier 1 lessons learned from the Fukushima Dai-ichi Nuclear Power Plant accident in Japan. These resources will support the oversight associated with licensees’ implementation of the Mitigation of Beyond-Design-Basis Events rule and continued implementation of the severe accident capable hardened vents order, as well as review of licensee responses to the requests for information associated with seismic and flooding hazard reevaluations.

## **OPERATING REACTORS**

---

- Complete approximately 700 licensing actions, including license amendment requests related to risk-informed initiatives such as technical specifications, implementing Title 10 of the Code of Federal Regulations (10 CFR) 50.69, “Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors,” digital instrumentation and controls, and power uprates.
- Perform knowledge management and training activities to increase the staff’s capabilities to use risk-informed decisionmaking, including the development of competency-based development programs.
- Perform project management activities and ensure that operators are qualified and licensed to perform their duties for the 99 power reactors and 31 licensed operating research and test reactors.
- Streamline the license renewal process for certain classes of nonpower production and utilization facilities.
- Conduct reviews for two proposed medical isotope (molybdenum-99) production facilities, including two operating license application reviews (Northwest Medical Isotopes (NWMI) and SHINE) and the oversight of the construction of those two facilities. Conduct a third application review for a facility to be installed at the University of Missouri-Columbia (MURR).
- Conduct preapplication activities for two high-enriched uranium to low-enriched uranium fuel conversion reviews at research reactors.
- The Rulemaking Center of Expertise will conduct rulemaking activities in accordance with published schedules, including developing the draft final rule for the decommissioning rulemaking. Also continue the review and processing of petitions for rulemaking.
- Complete approximately 300 other licensing tasks, including licensing-basis reviews, license renewal commitment reviews, and quality assurance and emergency plan reviews. Continue developing licensing infrastructure for the future application of ATF.
- Support cybersecurity program implementation, oversight, and program and policy issues, as needed.
- Provide potassium iodide replenishment to nine States.
- Conduct research on topics such as seismic and structural integrity; fire safety; PRA, including human reliability; digital instrumentation and controls and electrical research; materials performance; probabilistic assessment of reactor component integrity; aging management of operating reactors; fuel performance; environmental transport; natural phenomena; and human factors, as well as the development and maintenance of analytical tools that support radiation protection and health studies and risk, severe accident, consequence, and thermal-hydraulic assessments.
- Participate in consensus codes and standards development, assessment of operating experience, and management of the regulatory guide and generic issues programs.
- Satisfy international treaty and convention obligations, as well as statutory mandates. This includes serving as the U.S. lead for implementing the Convention on Nuclear Safety, leading and contributing to multilateral efforts on key nuclear safety and security issues, and ensuring appropriate representation at U.S.-led interagency initiatives.
- Participate in international nuclear safety peer review missions (e.g., Integrated Regulatory Review Service); exchange information (including regulatory best practices) with established regulatory counterparts bilaterally and multilaterally; and participate in, or provide leadership of, international nuclear safety research activities.



\*As limited by the number of licensing action requests submitted or accepted the previous fiscal year.

Figure 4: Operating Reactors Licensing Actions

License Renewal and Medical Isotope Facility Review Schedules<sup>1</sup>

Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
<b>License Renewal</b>							
New Applications	•Waterford	•River Bend				•Clinton •Perry	•Comanche Peak 1&2
Ongoing Complex Reviews (due to hearings or technical issues)	•Indian Point •Diablo Canyon <sup>2</sup> •South Texas •Seabrook •Davis Besse <sup>3</sup> •Grand Gulf	•Indian Point •Diablo Canyon <sup>2</sup> •South Texas <sup>3</sup> •Seabrook •Grand Gulf <sup>3</sup>	•Indian Point <sup>4</sup> •Diablo Canyon <sup>2</sup> •Seabrook <sup>5</sup>	•Seabrook <sup>3,5</sup>			
Ongoing Non-complex Reviews (i.e., no hearings or technical issues)	•LaSalle •Fermi 2 •Byron <sup>3</sup> •Braidwood <sup>3</sup>	•LaSalle <sup>3</sup> •Waterford •Fermi 2 <sup>3</sup>	•River Bend •Waterford <sup>3</sup>	•River Bend <sup>3</sup> •Waterford <sup>3</sup>			•Perry <sup>3</sup> •Clinton
<b>Subsequent License Renewal</b>							
•New Applications			•Peach Bottom	•Surry		•North Anna	
•Ongoing Non-complex Reviews (i.e., no hearing)				•Peach Bottom •Unnamed Plant <sup>3,6</sup>	•Surry •Peach Bottom <sup>3</sup>	•Surry <sup>3</sup>	•North Anna <sup>3</sup>

## OPERATING REACTORS

Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
<b>Medical Isotopes Facilities</b>							
New Applications		<ul style="list-style-type: none"> <li>•MURR/General Atomics Amendment, Part 1</li> </ul>	<ul style="list-style-type: none"> <li>•SHINE OL</li> <li>•NWMI OL</li> <li>•MURR Amendment (associated with NWMI)</li> <li>•MURR/General Atomics Amendment, Part 2</li> </ul>	<ul style="list-style-type: none"> <li>•Oregon State Amendment (associated with NWMI)</li> </ul>	<ul style="list-style-type: none"> <li>•Unnamed Reactor Amendment (associated with NWMI)</li> </ul>		
Ongoing Reviews	<ul style="list-style-type: none"> <li>•NWMI CP</li> <li>•SHINE CP<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>•NWMI CP<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>•MURR/General Atomics Amendment, Part 1<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>•SHINE OL</li> <li>•NWMI OL</li> <li>•MURR Amendment (associated with NWMI)<sup>3</sup></li> <li>•MURR/General Atomics Amendment, Part 2<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>•SHINE OL<sup>3</sup></li> <li>•NWMI OL<sup>3</sup></li> <li>•Oregon State Amendment (associated with NWMI)<sup>3</sup></li> <li>•MURR/General Atomics Amendment, Part 2<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>•Unnamed Reactor Amendment (associated with NWMI)<sup>3</sup></li> </ul>	

<sup>1</sup>Projected years' (FY 2019–2022) license renewal and nonpower production and utilization facility applications is based on information received from applicant letters of intent or responses to NRC-issued regulatory information summaries.

<sup>2</sup>In July 2016, the NRC suspended the license renewal review for Diablo Canyon at the applicant's request. No review work is underway and no budgeted resources are estimated during these years; however, until the application is withdrawn by the applicant, it remains a docketed application.

<sup>3</sup>The review has been or is expected to be completed in the FY shown.

<sup>4</sup>On March 13, 2017, the Atomic Safety and Licensing Board dismissed all remaining Indian Point contentions and terminated the adjudicatory proceeding. The safety and environmental renewal application reviews will continue in FY 2018.

<sup>5</sup>Resolve technical issues related to alkali silica reaction.

<sup>6</sup>A proprietary letter was received on May 17, 2017. Work is expected to begin in FY 2018.

Note: This schedule is subject to change.

### Acronyms

CP—construction permit

MURR—University of Missouri-Columbia Research Reactor

NWMI—Northwest Medical Isotopes, LLC

OL—operating license

SHINE—SHINE Medical Technologies, Inc.

**Status of Transitioning Reactors from Operating to Decommissioning**

<b>Site</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
Ft. Calhoun	Shut Down in October 2016 (FY 2017) Transitioning Year	Transitioning Year	Site Transfer Is Complete	Site Is with Decommissioning Group in Decommissioning and LLW Business Line	Site Is with Decommissioning Group in Decommissioning and LLW Business Line
Pilgrim	Operating	Operating	Expected to Shut Down May 2019 (FY 2019) Transitioning Year	Transitioning Year	Site Transfer Is Complete
Oyster Creek	Operating	Operating	Operating	Expected to Shut Down December 2019 (FY 2020) Transitioning Year	Transitioning Year
Indian Point 2	Operating	Operating	Operating	Expected to Shut Down April 2020 (FY 2020) Transitioning Year	Transitioning Year
Indian Point 3	Operating	Operating	Operating	Operating	Expected to Shut Down April 2021 (FY 2021) Transitioning Year
Three Mile Island	Operating	Operating	Expected to Shut Down September 2019 (FY 2019) Transitioning Year	Transitioning Year	Site Transfer Is Complete

## **OPERATING REACTORS**

---

### **SIGNIFICANT ACCOMPLISHMENTS IN FY 2017**

The significant accomplishments within the Operating Reactors Business Line include the following:

- Completed evaluation of security baseline inspections and recommendations for enhancing efficiency of Force-on-Force exercise.
- Developed regulatory basis for, “Regulatory Improvements for Power Reactors Transitioning to Decommissioning,” rulemaking.
- Submitted to the Commission SECY-16-0142, “Draft Final Rule—Mitigation of Beyond-Design-Basis Events (MBDBEs),” dated December 15, 2016. The MBDBE rule makes generically applicable requirements previously imposed by order for the mitigation of beyond-design-basis external events and for remotely monitoring the spent fuel pool wide-range level, includes provisions to have an integrated response capability, and addresses six petitions for rulemaking. The rule represents the culmination of the staff’s post-Fukushima efforts.
- Completed NUREG-1021, Revision 11, “Operator Licensing Examination Standards for Power Reactors,” issued February 2017. This revision applies to all initial licensed operator examinations administered after August 15, 2017. The revision will significantly enhance the license operator examination process and help to ensure consistent program implementation across the agency.
- Issued a closeout letter to Exelon to acknowledge that Clinton has completed actions associated with the implementation of the Fukushima Dai-ichi accident lessons learned. The letter documents the licensee’s responses to the post-Fukushima actions and NRC assessments of those responses. This is the first closeout letter the NRC has issued.
- Processed 24 escalated enforcement actions with eight of the escalated actions supported through an investigation. Issued two separate confirmatory orders, one to Edwin I. Hatch Nuclear Plant and one to Watts Bar Nuclear Plant.
- Leveraged international cooperation through computer code development and maintenance programs, including thermal-hydraulics code applications and maintenance, cooperative severe accident research, and the radiation protection computer code and maintenance program.
- Implemented the tracking, reporting, and coordination of research projects.
- Provided and conducted oversight response activities for Hurricanes Harvey, Irma, and Maria during August and September 2017.
- Implemented the licensing module of the Replacement Reactor Programs System, which facilitates a common understanding of the schedule and resource requirements and status of the various licensing products in the Operating Reactor Business Line. The new system will also capture additional data that will allow the NRC to identify opportunities to increase efficiency and to resolve issues before they impact the reviews.
- Led and supported U.S. Government delegations in international meetings addressing the Convention on Nuclear Safety, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, and the Convention on the Physical Protection of Nuclear Material, and served on multiple International Atomic Energy Agency regulatory peer review missions and guidance committees.
- Developed the U.S. Country Report and provided significant leadership that contributed to the 7<sup>th</sup> Review Meeting for the Convention on Nuclear Safety.

OTHER INDICATORS

LICENSING

Number of License Renewal Applications (Units) on which Final Decision Has Been Made (OR-01)*			
Fiscal Year	Target	Actual	Comment
FY 2014	0	0	
FY 2015	7**	5***	**The FY 2015 Congressional Budget Justification target was shown as 9 in error. ***Byron Units 1 and 2 and Braidwood Units 1 and 2 rescheduled for FY 2016.
FY 2016	7	5	Diablo Canyon was expected to be completed in FY 2016, but was delayed, and the application has now been suspended. Other units, such as Fermi 2, Grand Gulf, and Seabrook, were expected to be completed in FY 2016 but were all delayed as a result of technical issues.
FY 2017	7	6	The target was not met as result of the licensee's decision to discontinue pursuit of the Diablo Canyon license renewal.
FY 2018	1		
FY 2019	1		

\*The targets are based on the scheduled completion of the license renewal applications under review and the schedule of future applications.

Number of Licensing Actions Completed* (OR-02)			
Fiscal Year	Target	Actual	Comment
FY 2014	900	607	737 license amendment requests were submitted in FY 2014.
FY 2015	900	792	736 license amendment requests were submitted in FY 2015.
FY 2016	900	837	754 license amendment requests were submitted in FY 2016.
FY 2017	900	967	905 license amendment requests were submitted in FY 2017.
FY 2018	700		700 licensing actions are projected for submission.
FY 2019	700		

\*As limited by the number of licensing action requests submitted or accepted the previous FY.

Percentage of Licensing Actions Completed in 1 Year or Less* (OR-03)			
Fiscal Year	Target	Actual	Comment
FY 2014	95	87	Because of the redirection of resources to process the Fukushima-related licensing actions and other licensing tasks, which have completion schedules extending into 2017, the indicator target was not met. The NRC has developed a staffing strategy to identify resources and critical skills needed to address the gap between the budgeted number of staff and those who are currently on board.
FY 2015	95	88	
FY 2016	95	95	
FY 2017	95	96	
FY 2018	95		
FY 2019	95		

\*Excludes improved Standard Technical Specification conversions, licensing actions associated with the Fukushima NTF recommendations (beginning in FY 2014), and power uprates. Also excludes license amendment requests that are unusually complex.

## OPERATING REACTORS

Percentage of Licensing Actions Completed in 2 Years or Less* (OR-04)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	99	Because of the redirection of resources to process the Fukushima-related licensing actions and other licensing tasks, which both also have completion schedules extending into 2017, the indicator target was not met. The NRC has developed a staffing strategy to identify resources and critical skills needed to address the gap between the budgeted number of staff and those who are currently on board.
FY 2015	100	99	
FY 2016	100	100	
FY 2017	100	99	This target was not met as a result of unusually complex license amendments and the need to resolve technical adequacy of applications to risk-inform technical specifications.
FY 2018	100		
FY 2019	100		
*Excludes improved Standard Technical Specification conversions, licensing actions associated with the Fukushima NTF recommendations (beginning in FY 2014), and power uprates. Also excludes license amendment requests that are unusually complex.			

Percentage Increase in the 12-Month Average Percent of Licensing Actions Less Than 1 Year Old for FY 2017 Compared with the Percent of Licensing Actions Less Than 1 Year Old on September 30, 2016* (OR-05)			
Fiscal Year	Target	Actual	Comment
FY 2014			
FY 2015	New indicator in 2016		
FY 2016	2	7	
FY 2017	2	N/A	The target does not apply because the inventory is greater than 93 percent.
FY 2018	*Discontinued		Indicator was for tracking progress in reducing licensing action backlogs in previous FYs.
FY 2019	N/A		
*This target will not apply if the inventory of licensing actions less than 1 year old on September 30 is 93 percent or greater.			

Number of Other Licensing Tasks Completed* (OR-06)			
Fiscal Year	Target	Actual	Comment
FY 2014	500	765	577 other licensing tasks were submitted in FY 2014.
FY 2015	500	461	599 other licensing tasks were submitted in FY 2015.
FY 2016	500	641	597 other licensing tasks were submitted in FY 2016.
FY 2017	500	644	655 other licensing tasks were submitted in FY 2016.
			The definition of other licensing tasks was revised during FY 2016 to more accurately reflect the Congressional Budget Justification definition and remove actions that are staff initiated and keep actions that are submitted by the licensee. This revision decreased the number of actions counted as other licensing tasks for FY 2017. The target for FY 2018 more accurately reflects expected other licensing tasks completed under this new definition.
FY 2018	300		
FY 2019	300		
*As limited by the number of other licensing task requests submitted or accepted the previous FY.			

<b>Percentage of Other Licensing Tasks Completed in 1 Year or Less* (OR-07)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	90	87	Because of the redirection of resources to process the Fukushima-related licensing actions and other licensing tasks, which both also have completion schedules extending into 2017, the indicator target was not met. The NRC has developed a staffing strategy to identify resources and critical skills needed to address the gap between the budgeted number of staff and those who are currently on board.
FY 2015	90	87	
FY 2016	90	90	
FY 2017	90	100	
FY 2018	90		
FY 2019	90		

\*Excludes multiplant actions, licensing tasks associated with the Fukushima NTTF recommendations (beginning in FY 2014), and other unusually complex licensing tasks.

<b>Percentage of Other Licensing Tasks Completed in 2 Years or Less* (OR-08)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	99	Because of the redirection of resources to process the Fukushima-related licensing actions and other licensing tasks, which both also have completion schedules extending into 2017, the indicator target was not met. The NRC has developed a staffing strategy to identify resources and critical skills needed to address the gap between the budgeted number of staff and those who are currently on board.
FY 2015	100	97	
FY 2016	100	99	
FY 2017	100	100	The comment above also applies to FY 2016
FY 2018	100		
FY 2019	100		

\*Excludes multiplant actions, licensing tasks associated with the Fukushima NTTF recommendations (beginning in FY 2014), and other unusually complex licensing tasks.

<b>Percentage Increase in the 12-Month Average Percent of Other Licensing Tasks Less Than 1 Year Old for FY 2017 Compared with the Percent of Other Licensing Tasks Less Than 1 Year Old on September 30, 2016* (OR-09)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014			
FY 2015	New indicator in 2016		
FY 2016	2	3	
FY 2017	2	N/A	The target does not apply because the inventory is greater than 93 percent.
FY 2018	Discontinued		The indicator was for FY 2016 and FY 2017 only.
FY 2019	N/A		

\*This target will not apply if the inventory of licensing actions less than 1 year old on September 30 is 93 percent or greater.

## OPERATING REACTORS

Number of Initial Operator Licensing Examination Sessions* (OR-10)			
Fiscal Year	Target	Actual	Comment
FY 2014	55	55	
FY 2015	53	42	42 requests for examination sessions were received in FY 2015.
FY 2016	46	40	40 requests for examination sessions were received in FY 2016.
FY 2017	47	41	41 requests for examination sessions were received in FY 2017.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		
*Targets are based upon the nuclear industry's projected demand for initial operator licensing examination sessions.			

Number of Generic Fundamentals Examination Sessions Administered (OR-11)			
Fiscal Year	Target	Actual	Comment
FY 2014	4	4	
FY 2015	4	4	
FY 2016	4	4	
FY 2017	2	3	3 requests for examination sessions were received in FY 2017.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

## OVERSIGHT

Number of Plants for which All Required Baseline Inspection Procedures Are Completed* (OR-12)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	99	99	A fifth operating reactor entered the decommissioning phase at the beginning of FY 2015.
FY 2016	100	100	The increase from 99 to 100 accounts for the startup operation of Watts Bar Nuclear Plant, Unit 2 in FY 2016.
FY 2017	99	99	Fort Calhoun Station shut down leaving 99 operating reactors.
FY 2018	Discontinued		Replaced by "Percentage of Plants for which All Required Baseline Inspection Procedures Are Completed (OR-12.1)"
FY 2019	N/A		
*The baseline inspection program metric includes the number of reactors in operation.			

Percentage of Plants for which All Required Baseline Inspection Procedures Are Completed (OR-12.1)			
Fiscal Year	Target	Actual	Comment
FY 2018	99		New target in FY 2018 (replacing OR-12).
FY 2019	99		

<b>Percentage of Final Significance Determinations Made within 90 Days for All Potentially Greater Than Green Findings (OR-13)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	90	86	The 90 day target was exceeded by 1 day for one action because of one particularly complicated issue
FY 2015	90	88	The target was not met because of the complexity of the flooding issues associated with Arkansas Nuclear One Units 1 and 2.
FY 2016	90	100	
FY 2017	90	100	
FY 2018	90		
FY 2019	90		

<b>Percentage of Technical Allegation Reviews Completed in 150 Days or Less (OR-14)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	90	97	
FY 2015	90	98	
FY 2016	90	97	
FY 2017	90	97	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

<b>Percentage of Technical Allegation Reviews Completed in 180 Days or Less (OR-15)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	95	99	
FY 2015	95	99	
FY 2016	95	99	
FY 2017	95	99	
FY 2018	95		
FY 2019	95		

<b>Percentage of Technical Allegation Reviews Completed in 360 Days or Less (OR-16)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

<b>Percentage of Enforcement Actions Where No Investigation Is Involved Completed in 160 Days or Less (OR-17)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	87	Three cases missed the metric because of the complexity of each case, which required the NRC to take more time to resolve the enforcement action.
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

## OPERATING REACTORS

Percentage of Enforcement Actions Where Investigation Is Involved Completed in 330 Days or Less (OR-18)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	86	One case missed the metric because the case included an investigation to determine whether willfulness was involved on the part of licensee employees, which required the NRC to take additional time to resolve the enforcement action.
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

Percentage of Investigations That Developed Sufficient Information To Reach a Conclusion Regarding Wrongdoing Completed in 12 Months or Less* (OR-19)			
Fiscal Year	Target	Actual	Comment
FY 2014	80	84	
FY 2015	80	98	
FY 2016	80	95	
FY 2017	80	97	
FY 2018	80		
FY 2019	85		
<p>*Target for FY 2013 and FY 2014 was 9 months or less. The increase of time from 9 to 12 months reflects the implementation of added quality assurance checks during an investigation and the need to ensure that due professional care is used in conducting investigations and preparing related reports, as outlined in the Council of Inspectors General on Integrity and Efficiency Quality Standards for Investigations. Additionally, the Office of Investigations has implemented a more robust mentoring program with specialized training and development strategies because of high turnover through mandatory retirements of over 50 percent of Special Agents and Special Agents in Charge during FY 2013, FY 2014, and FY 2015.</p>			

Percentage of Investigations Completed in Time To Initiate Civil and/or Criminal Enforcement Action (OR-20)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

## RULEMAKING

Percentage of Proposed Final Rules Completed in Accordance with Schedules Approved by the Commission (OR-21)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	80	100	
FY 2017	80	100	
FY 2018	80		
FY 2019	80		

RESEARCH

Percentage of Major Milestones for Critical Research Programs Completed On or Before Their Due Date* (OR-22)			
Fiscal Year	Target	Actual	Comment
FY 2014	90	100	
FY 2015	90	100	
FY 2016	90	100	
FY 2017	90	100	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	NA		

\*Critical research programs typically respond to high-priority needs from the Commission and the NRC's licensing organizations. Critical research programs will be the highest priority needs identified at the beginning of each FY.

Combined Score on a Scale of 1 to 5 for the Technical Quality of Agency Research Technical Products* (OR-23)			
Fiscal Year	Target	Actual	Comment
FY 2014	3.75	4.42	
FY 2015	3.75	4.66	
FY 2016	3.75	4.43	
FY 2017	3.75	4.50	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	4.0		Reintroduced in FY 2019, the Technical Quality Survey was initially pulled because of the low response rate. The Office of Nuclear Regulatory Research (RES) reexamined its performance indicators and believes the Technical Quality Survey indicator provides the best quality measure for the office and the agency on RES products. RES is focused on improving the response rate of the surveys by user offices and potentially revising the survey questions to enhance the value of this tool.

\*The NRC has developed a process to measure the quality of research products on a five-point scale using surveys of end-users to determine the usability and value-added of the products. As appropriate, the NRC will develop and add other mechanisms of this process to measure the quality of research products.

EVENT RESPONSE

Percentage Assessment of the Agency's Readiness To Respond to a Nuclear or Terrorist Emergency Situation or Other Events of National Interest* (OR-24)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

\*This performance index provides a single overall performance indicator of the agency's readiness to respond to a nuclear or terrorist emergency situation or other events of national interest. The index measures several activities within the Incident Response Program that are critical to support the agency's preparedness and response ability.

## OPERATING REACTORS

---

### GENERIC HOMELAND SECURITY

Percentage of Information Assessment Team Advisories Issued within 24 hours of Notification (OR-25)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	90	100	No threat met the threshold for the issuance of an Information Assessment Team for FY 2016.
FY 2017	90	100	No threat met the threshold for the issuance of an Information Assessment Team for FY 2017.
FY 2018	90		
FY 2019	90		

## NEW REACTORS

New Reactors by Product Line (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
International Activities	1.1	5.8	1.1	6.0	1.0	5.0	(0.1)	(1.0)
Licensing	45.3	205.4	43.9	216.0	44.2	175.0	0.3	(41.0)
Oversight	18.3	95.9	18.1	101.0	14.9	75.0	(3.2)	(26.0)
Research	8.8	17.4	8.9	17.0	15.1	35.0	6.2	18.0
Rulemaking	1.4	5.8	1.0	6.0	1.9	10.0	0.9	4.0
Mission Support and Supervisors	16.6	91.4	16.7	96.0	16.6	85.0	(0.1)	(11.0)
Training	2.9	11.7	2.9	13.0	2.8	9.0	(0.1)	(4.0)
Travel	1.8	0.0	2.6	0.0	2.6	0.0	0.0	0.0
<b>Total</b>	<b>\$96.1</b>	<b>433.3</b>	<b>\$95.2</b>	<b>455.0</b>	<b>\$99.1</b>	<b>394.0</b>	<b>\$3.9</b>	<b>(61.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The New Reactors Business Line is responsible for licensing and overseeing, design, siting, and construction of new nuclear power reactors, including small modular reactors (SMRs) and advanced reactors. The new reactors activities ensure that new civilian nuclear power reactor facilities are developed in a manner that protects the health, safety, and security of the public in an efficient manner.

The NRC reviews new nuclear power reactor design certification (DC), combined license (COL), and early site permit (ESP) applications, consistent with Title 10 of the *Code of Federal Regulation* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." By issuing a COL, the NRC authorizes the licensee to construct and, with specified conditions, operate a nuclear power plant at a specific site.

The NRC also reviews new nuclear power reactor construction permit and operating license applications, consistent with 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The application process regulated under 10 CFR Part 50—which was implemented for all currently operating reactors—involves separate applications for the issuance of construction permits and operating licenses.

The NRC continues to perform technical reviews of large, light-water reactors (LLWRs) and SMR applications. The NRC continues to conduct regulatory oversight of construction activities. These activities include conducting inspections of plants under construction and of component suppliers. The NRC continues to interact with vendors about prospective SMR and advanced reactor applications and to refine regulatory processes to prepare for reviewing these potential applications.

## **NEW REACTORS**

---

### **CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION**

Resources increase to support the NuScale and 10 CFR Part 50 and 10 CFR Part 52 rulemaking, "Incorporation of Lessons Learned from New Reactor Licensing Process (Parts 50 and 52 Licensing Process Alignment)." Additionally resources increase to support the following activities: (1) application review and construction oversight for Bellefonte Nuclear Station (Bellefonte), Units 1 and 2 (10 CFR Part 50); (2) acceptance reviews for the COL applications for the Blue Castle (LLWR) and the Utah Associated Municipal Power System (UAMPS) SMR; and (3) the maintenance, security, and enhancement of the Construction Inspection Program Information Management System, Verification of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Closure Evaluation and Status (VOICES) system, and Electronic Request for Additional Information system. Resources in the Research Product Line increase to support activities related to the development of the regulatory infrastructure for advanced nuclear reactor technologies, as documented in the NRC non-light-water-reactor (non-LWR) near-term, midterm, and long-term implementation action plans, including identification and resolution of policy issues related to advanced reactors, development of guidance for flexible and staged review processes, and development of guidance for risk-informed, performance-based licensing-basis events selection.

These increases are partially offset by decreases as a result of the anticipated completion of the reconciliation of Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)," with NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition"; the decision made by South Carolina Electric and Gas Company and Santee Cooper to cease construction of the two new nuclear units (2 and 3) at Virgil C. Summer; the completion of the technical review and rulemaking for the Advanced Power Reactor-1400 (APR1400) DC; Duke Energy's recent decisions regarding COLs for the Lee and Levy sites; the anticipated resolution of the majority of policy and key technical issues related to SMRs and integral pressurized-water reactors; and standardization and centralization of mission support functions within the programmatic offices.

Generally, resources budgeted in the Licensing and Oversight Product Lines impact fees for service. All other resources impact annual fees.

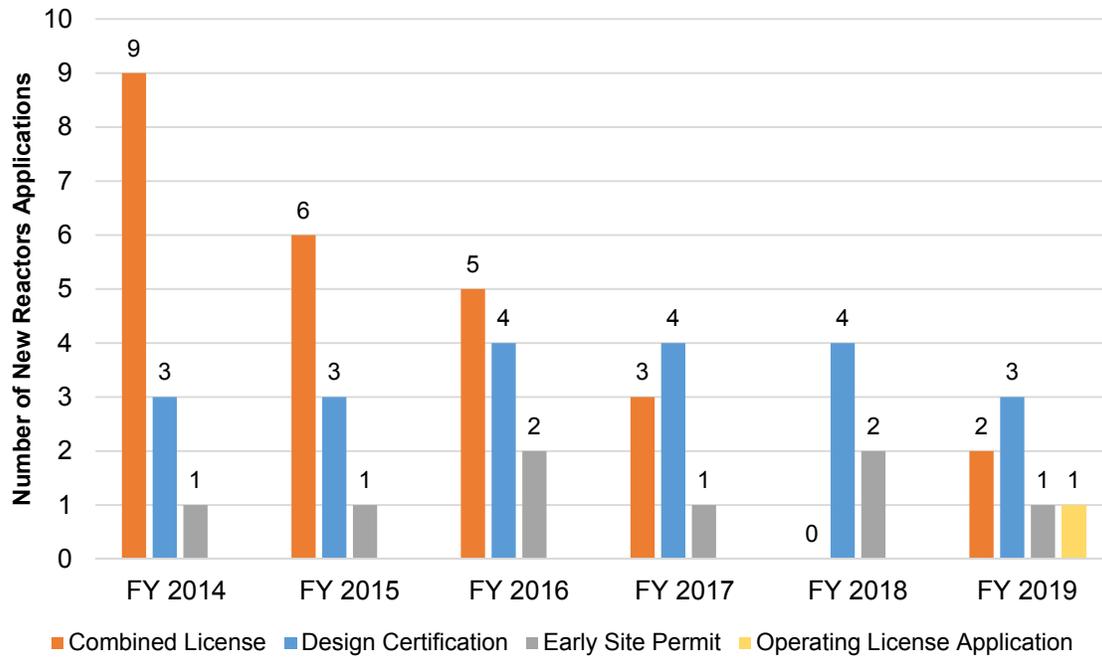
### **MAJOR ACTIVITIES**

The major activities within the New Reactors Business Line include the following:

- Support the licensing reviews for two COL applications (Blue Castle and UAMPS).
- Continue the review of two DC applications for NuScale (SMR) and U.S. Advanced Pressurized-Water Reactor (US-APWR) (LLWR).
- Continue the review of one DC renewal application for the General Electric-Hitachi Advanced Boiling-Water Reactor (ABWR) design (LLWR).
- Continue the review of one SMR ESP application (Tennessee Valley Authority's (TVA's) Clinch River Nuclear Site).
- 10 CFR Part 50 review activities for Bellefonte Units 1 and 2, including license transfer and operating license applications.
- Review license amendments for post-COL activities. The NRC anticipates that a significant percentage of amendments will be for important or significant design changes associated with resolving first-of-a-kind construction issues.

- Infrastructure development for advanced reactors at a rate consistent with NRC projections for interest in new technologies while maintaining cognizance of the industry's plans.
- Perform activities related to advanced reactor preapplication and review for one DC application (Oklo).
- Perform construction inspection activities at the two reactors under construction (Vogtle Electric Generating Plant, Units 3 and 4) and support initial oversight activities at Bellefonte Units 1 and 2.
- Conduct inspections of vendors supplying products and services for new reactors and support the continued implementation of a formal agencywide program to monitor and evaluate counterfeit, fraudulent, and suspect items.
- The Rulemaking Center of Expertise will coordinate rulemaking activities, including amending financial qualification requirements for reactor licensing to reduce the regulatory burdens for merchant plant applicants, emergency preparedness for SMRs and other new technologies, APR1400 DC, US ABWR (General Electric-Hitachi) DC renewal, NuScale SMR DC, and the 10 CFR Part 50 and 10 CFR Part 52 rule, "Incorporation of Lessons Learned from New Reactor Licensing Process (Parts 50 and 52 Licensing Process Alignment)."
- Provide research support for LLWR and SMR DC reviews and analysis, including the development of new reactor plant risk models; seismic, geotechnical, and structural engineering studies; probabilistic seismic hazard assessments support; tsunami studies; probabilistic flood hazard assessment framework; independent assessment of thermal-hydraulics system responses and severe accidents; and pipe-rupture acceptance criteria. Resources also support the development of guidance for human factors reviews and efforts to maintain and develop codes and models.
- Provide international support for the continued participation in the Multinational Design Evaluation Program that will potentially enhance safety at U.S. sites through international exchanges of licensing, construction inspection, and commissioning activities.
- Continue to implement strategic bilateral and multilateral cooperation with countries on the regulatory oversight of construction of AP1000 reactors. The program also supports International Atomic Energy Agency activities, such as those related to generic SMR issues, standards development, and consultancy meetings. In addition, the program supports Nuclear Energy Agency activities, such as those related to new reactor design and commissioning.
- Complete the plan for the transition of regulatory oversight as the new AP1000 units move from construction to operation.

## NEW REACTORS



**Figure 5: New Reactor Applications under Review**

**New Reactor Applications under Review**

New Reactor Reviews	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
COL	<ul style="list-style-type: none"> <li>• Bell Bend</li> <li>• Calvert Cliffs</li> <li>• Comanche Peak</li> <li>• Fermi</li> <li>• Levy County</li> <li>• North Anna</li> <li>• South Texas Project</li> <li>• Turkey Point</li> <li>• Lee Station</li> </ul>	<ul style="list-style-type: none"> <li>• Bell Bend</li> <li>• Lee Station</li> <li>• Levy County</li> <li>• North Anna</li> <li>• South Texas Project</li> <li>• Turkey Point</li> </ul>	<ul style="list-style-type: none"> <li>• Lee Station</li> <li>• Levy County</li> <li>• North Anna</li> <li>• South Texas Project</li> <li>• Turkey Point</li> </ul>	<ul style="list-style-type: none"> <li>• Lee Station</li> <li>• North Anna</li> <li>• Turkey Point</li> </ul>		<ul style="list-style-type: none"> <li>• Blue Castle</li> <li>• UAMPS</li> </ul>
DC	<ul style="list-style-type: none"> <li>• ESBWR,</li> <li>• U.S. EPR</li> <li>• US-APWR</li> </ul>	<ul style="list-style-type: none"> <li>• U.S. EPR</li> <li>• US-APWR</li> <li>• KHNP (APR-1400)</li> </ul>	<ul style="list-style-type: none"> <li>• US-APWR</li> <li>• ABWR</li> <li>• KHNP (APR-1400)</li> <li>• NuScale*</li> </ul>	<ul style="list-style-type: none"> <li>• US-APWR</li> <li>• ABWR</li> <li>• KHNP (APR-1400)</li> <li>• NuScale</li> </ul>	<ul style="list-style-type: none"> <li>• US-APWR</li> <li>• ABWR</li> <li>• KHNP (APR-1400)</li> <li>• NuScale</li> </ul>	<ul style="list-style-type: none"> <li>• US-APWR</li> <li>• ABWR</li> <li>• NuScale</li> </ul>
ESP	<ul style="list-style-type: none"> <li>• PSEG</li> </ul>	<ul style="list-style-type: none"> <li>• PSEG</li> </ul>	<ul style="list-style-type: none"> <li>• PSEG</li> <li>• TVA Clinch River*</li> </ul>	<ul style="list-style-type: none"> <li>• TVA Clinch River</li> </ul>	<ul style="list-style-type: none"> <li>• Blue Castle</li> <li>• TVA Clinch River</li> </ul>	<ul style="list-style-type: none"> <li>• TVA Clinch River</li> </ul>
Operating License Application						<ul style="list-style-type: none"> <li>• Bellefonte</li> </ul>

\*Preapplication review

## NEW REACTORS

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2017

The significant accomplishments within the New Reactors Business Line include the following:

- Completed 273 ITAAC closure notifications, 97 percent of these within 60-day timeliness goal, and took actions to proactively anticipate and manage a surge in ITAAC closure notification.
- Completed three COL applications, which resulted in the issuance of COLs for North Anna Unit 3, Levy Units 1 and 2, and Lee Units 1 and 2.
- Published the final safety evaluation report, final environmental impact statement, and environmental impact statement supplement for the Turkey Point COL application.
- Completed the acceptance review of the NuScale SMR DC and associated topical reports. This acceptance review confirmed that the DC application is sufficiently complete to allow the NRC to begin its review.
- Completed two major milestones for the APR1400 DC review (issuance of safety evaluations with open items and briefings to the Advisory Committee on Reactors Safeguards subcommittee).
- Issued the final version of the non-LWR near-term, midterm, and long-term implementation action plans that support the vision and strategy for advanced reactor readiness. These plans will guide the NRC's actions to enhance the effectiveness and efficiency of non-LWR design reviews.
- Completed a major milestone, "Preliminary Safety Evaluation Report and Requests for Additional Information Issued," associated with the safety review of the ESP application for the Clinch River Nuclear Site.
- Completed the final regulatory basis for the Emergency Preparedness for Small Modular Reactors and Other New Technologies proposed rulemaking, which focuses on establishing a scalable, consequence-oriented approach to determining the size of an emergency planning zone for SMRs and non-LWRs.
- Completed 35 inspections of vendors supplying components for operating reactors and reactors under construction. These inspections ensure the quality of the supply chain for nuclear plants by confirming that components are manufactured in accordance with NRC regulations.

### OTHER INDICATORS

#### LICENSING

Percentage of Early Site Permit Review Interim Milestones Completed on Time (NR-02)			
Fiscal Year	Target	Actual	Comment
FY 2014			
FY 2015	New indicator in FY 2016		
FY 2016	85	100	
FY 2017	85	100	
FY 2018	85		
FY 2019	85		

<b>Percentage of Design Certification Review Interim Milestones Completed on Time (NR-04)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	85	100	
FY 2017	85	100	
FY 2018	85		
FY 2019	85		

<b>Percentage of Milestones for COL Application Reviews Completed in Accordance with the Schedules Agreed Upon with the Applicants (NR-06)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	85	100	
FY 2017	85	100	
FY 2018	85		
FY 2019	85		

<b>Percentage of Interim Milestones for SMR DC Reviews That Are Completed in Accordance with the Schedules Agreed Upon with the Applicants (NR-08)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	85	NA	No reactor design submitted for review.
FY 2017	85	100	
FY 2018	Discontinued		Indicator to be merged with the indicator, "Percentage of Design Certification Review Interim Milestones Completed on Time." (NR-04)
FY 2019	N/A		

## NEW REACTORS

Identify and Resolve Policy and Key Technical Issues Facing the Review of SMR Applications and Implement Resolutions through Rule Changes or Guidance Development (NR-09)			
Fiscal Year	Target	Actual	Comment
FY 2014	Complete 100% of milestones necessary to support the resolution of policy and key technical issues. In addition, complete milestones necessary to support implementation of resolutions.	All milestones completed as appropriate.	
FY 2015		All milestones completed as appropriate.	
FY 2016		100	
FY 2017		100	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

Percentage of SMR Preapplication Review Interim Milestones Completed in Accordance with the Schedule Agreed Upon with the Applicants for Two DC Applications (NR-11)			
Fiscal Year	Target	Actual	Comment
FY 2014			
FY 2015	New indicator in FY 2016		
FY 2016	85	N/A	No milestones associated with preapplication reviews.
FY 2017	85	N/A	No SMR preapplication activities during FY 2017
FY 2018	Discontinued		SMR preapplication review timeliness will be tracked internally.
FY 2019	N/A		

Percentage of Interim Milestones for SMR COL and Construction Permit Application Reviews Completed in Accordance with the Schedule Agreed Upon with the Applicants (NR-13)			
Fiscal Year	Target	Actual	Comment
FY 2014			
FY 2015	New indicator in FY 2016		
FY 2016	85	N/A	The NRC had no SMR COL or SMR construction permit application for review during this FY.
FY 2017	85	N/A	There is currently no SMR COL or SMR construction permit application for FY 2017.
FY 2018	Discontinued		Indicator to be merged with the indicator, "Percentage of Milestones for COL Application Reviews Completed in Accordance with the Schedules Agreed Upon with the Applicants." (NR-06)
FY 2019	N/A		

Percentage of License Amendment Reviews Completed on the Schedules Agreed Upon with the Licensee (Within the NRC's Control) (NR-14)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	85	100	
FY 2017	85	100	
FY 2018	85		
FY 2019	85		

## OVERSIGHT

Number of Domestic and International Vendor Inspections Completed (NR-15)			
Fiscal Year	Target	Actual	Comment
FY 2014	30	36	
FY 2015	30	39	
FY 2016	30	34	
FY 2017	35	37	The target was increased based on increased workload.
FY 2018	30		The target was decreased based on decreased workload.
FY 2019	20		The target was decreased based on decreased workload.

## RULEMAKING

Percent of Proposed Final Rules Completed in Accordance with the Schedule Approved by the Commission (NR-16)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	80	N/A	There were no final rulemakings in FY 2016.
FY 2017	80	N/A	There were no final rulemakings scheduled in FY 2017
FY 2018	80		
FY 2019	80		

## NEW REACTORS

### RESEARCH

Timeliness of Completing Actions on Critical Research Program* (NR-17)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	90% of major milestones met on or before their due date	No critical research program actions completed in FY 2015.	
FY 2016	90% of major milestones met on or before their due date	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2016; thus, there are no performance data to report.
FY 2017	90% of major milestones met on or before their due date	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2017; thus, there are no performance data to report.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

\*Critical research programs typically respond to high-priority needs from the Commission and the NRC's licensing organizations. Critical research programs will be the highest priority needs identified at the beginning of each FY.

Acceptable Technical Quality of Agency Research Technical Products* (NR-18)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	3.75	N/A	No technical quality surveys requested in FY 2015.
FY 2016	3.75	4.31	
FY 2017	3.75	4.42	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	4.0		Reintroduced for FY 2019, the Technical Quality Survey was initially pulled because of the low response rate. The Office of Nuclear Regulatory Research (RES) reexamined its performance indicators and believes the Technical Quality Survey indicator provides the best quality measure for the office and the agency on RES products. RES is focused on improving the response rate of the surveys by user offices and potentially revising the survey questions to enhance the value of this tool.

\*The NRC has developed a process to measure the quality of research products on a 5-point scale using surveys of end-users to determine the usability and value-added of the products. As appropriate, the NRC will develop and add other mechanisms to this process to measure the quality of research products.

Percentage of Non-LWR Construction Permit Review Interim Milestone Completed on Time (NR-19)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2019		
FY 2015			
FY 2016			
FY 2017			
FY 2018			
FY 2019	85		

**NUCLEAR MATERIALS AND WASTE SAFETY**

<b>Nuclear Materials and Waste Safety</b> (Dollars in Millions)								
<b>Business Line</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Fuel Facilities	24.5	109.2	24.7	113.0	25.2	107.0	0.5	(6.0)
Nuclear Materials Users	64.4	228.5	63.5	238.0	60.6	215.0	(2.9)	(23.0)
Spent Fuel Storage and Transportation	24.8	99.6	22.3	102.0	24.8	100.0	2.5	(2.0)
Decommissioning and Low-Level Waste	26.8	111.8	26.4	115.0	25.4	104.0	(1.0)	(11.0)
High-Level Waste	0.9	1.3	0.0	0.0	47.7	124.0	47.7	124.0
<b>Total</b>	<b>\$141.3</b>	<b>550.6</b>	<b>\$136.9</b>	<b>568.0</b>	<b>\$183.7</b>	<b>650.0</b>	<b>\$46.8</b>	<b>82.0</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The Nuclear Materials and Waste Safety Program reflects the NRC’s effort to license and oversee nuclear materials in a manner that adequately protects public health and safety and the environment. This program provides assurance of the physical security of the materials and waste and protection against radiological sabotage, theft, or diversion of nuclear materials. Through this program, the NRC regulates uranium processing and fuel facilities, research and pilot facilities, nuclear materials users (medical, industrial, research, and academic), spent fuel storage, spent fuel and material transportation and packaging, decontamination and decommissioning of facilities, and low-level and high-level radioactive waste. The program contributes to the NRC’s Safety and Security strategic goals through the activities of the Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, Decommissioning and LLW, and High-Level Waste Business Lines.

Overall resources requested in the fiscal year (FY) 2019 budget for the Nuclear Materials and Waste Safety Program are \$183.7 million, including 650 full-time equivalents (FTE). This funding level represents an overall funding increase of \$46.8 million, including 82 FTE, when compared with the FY 2018 Annualized Continuing Resolution. This budget includes \$47.7 million, including 124 FTE for the proposed Yucca Mountain deep geologic repository for spent nuclear fuel and other high-level radioactive waste, which is not fee-billable and requires resources from the Nuclear Waste Fund.



FUEL FACILITIES

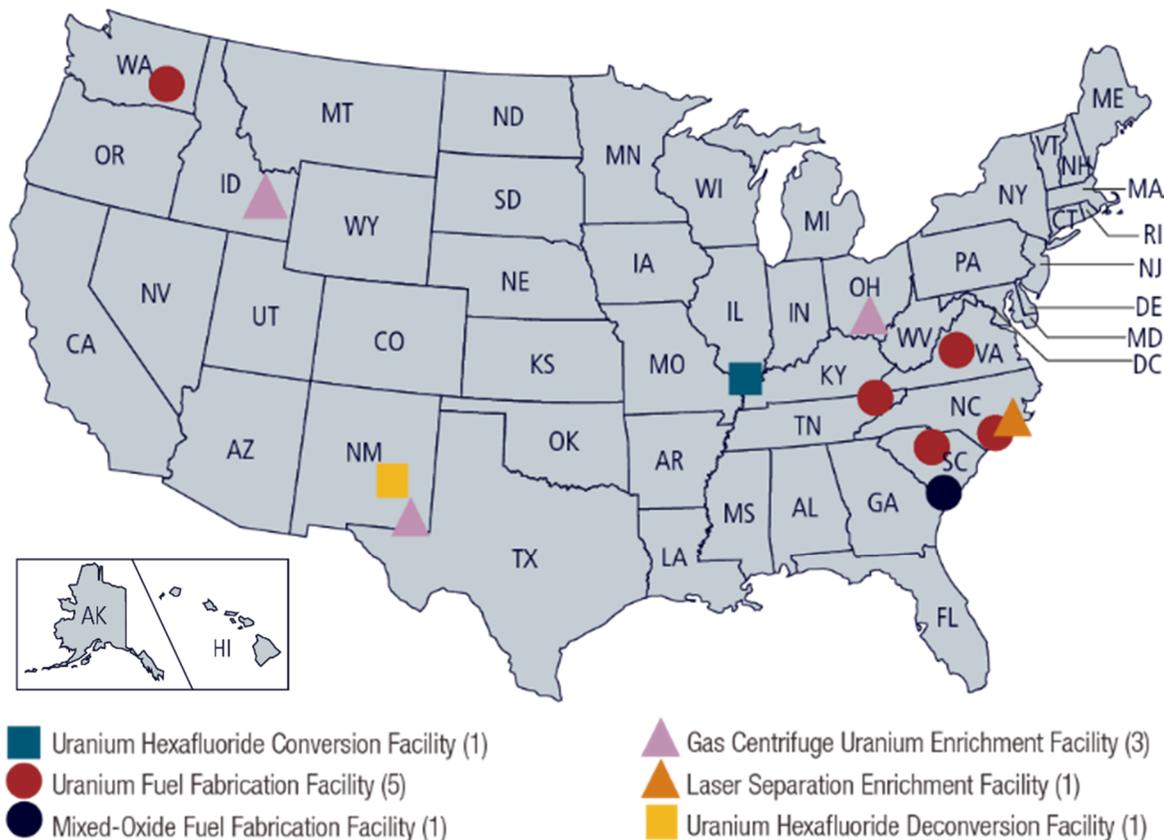
Fuel Facilities by Product Line (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Event Response	0.3	1.9	0.4	2.0	0.4	2.0	0.0	0.0
Generic Homeland Security	2.4	2.9	2.5	3.0	2.3	3.0	(0.2)	0.0
International Activities	1.2	6.8	1.2	7.0	1.3	7.0	0.1	0.0
Licensing	5.9	30.3	6.0	31.0	6.5	30.0	0.5	(1.0)
Oversight	7.6	38.2	7.6	40.0	7.9	39.0	0.3	(1.0)
Research	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Rulemaking	1.5	6.8	1.2	7.0	0.7	4.0	(0.5)	(3.0)
Mission Support and Supervisors	4.2	22.2	4.3	23.0	4.4	22.0	0.1	(1.0)
Training	0.4	0.0	0.4	0.0	0.6	0.0	0.2	0.0
Travel	1.0	0.0	1.1	0.0	1.1	0.0	0.0	0.0
<b>Total</b>	<b>\$24.5</b>	<b>109.2</b>	<b>\$24.7</b>	<b>113.0</b>	<b>\$25.2</b>	<b>107.0</b>	<b>\$0.5</b>	<b>(6.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The Fuel Facilities Business Line encompasses the licensing and oversight of fuel cycle facilities in a manner that adequately protects public health and safety and promotes the common defense and security. The uranium fuel cycle begins with uranium ore that is mined and then milled to extract uranium from the ore (these activities are funded in the Decommissioning and Low-Level Waste Business Line). The uranium continues through processes for conversion, enrichment, and fuel fabrication. Conversion of the uranium changes it into a form suitable for enrichment. The enrichment process makes uranium suitable for use as nuclear fuel.

The Fuel Facilities Business Line also provides licensing and oversight support for a number of additional licensees that possess greater than critical mass quantities of special nuclear material (SNM), such as universities and research and test facilities.

## FUEL FACILITIES



**Figure 6: Locations of Licensed Fuel Cycle Facilities**

Some licensed fuel facilities possess SNM, such as plutonium and enriched uranium. Those licensees verify and document their inventories and material transfers in the Nuclear Material Management and Safeguards System database. Fuel Facilities Business Line activities also include the Nuclear Materials Information Program (NMIP) and the interagency agreement with the U.S. Department of Energy (DOE) for certification and accreditation of classified computer systems at enrichment facilities.

The NMIP is an interagency effort managed by DOE's Office of Intelligence and Counterintelligence, in close coordination with the U.S. Departments of State, Defense, Homeland Security, and Justice, as well as the NRC and agencies under the Director of National Intelligence. The goal of the NMIP is to consolidate information from all sources pertaining to worldwide nuclear materials holdings and their security status into an integrated and continuously updated information management system.

Other activities the Fuel Facilities Business Line supports include licensing action reviews, inspections, allegation and enforcement, rulemaking, development and implementation of security requirements, emergency preparedness, international cooperation and assistance, International Atomic Energy Agency (IAEA) missions, and export and import licensing.

## **CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION**

Resources increase slightly to support enforcement activities, policy outreach activities, and mission training. Increases are partially offset by decreases in expected new fuel facility license applications, declines in expected work associated with license renewal applications, and the expected completion of the Cyber Security Rulemaking.

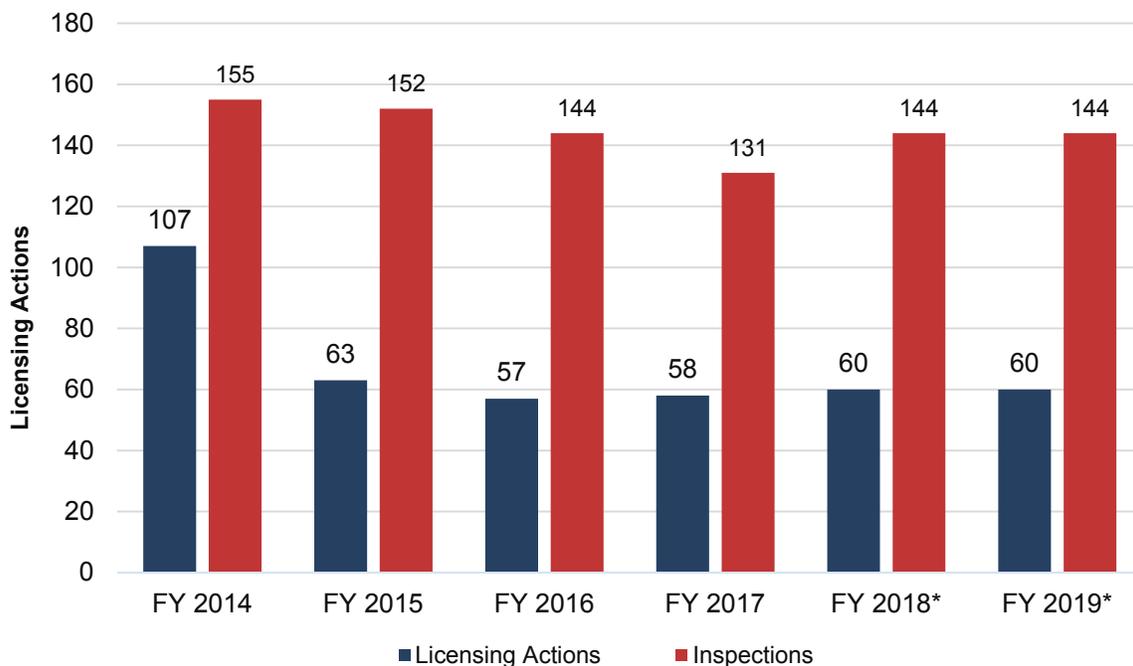
Generally, resources budgeted in the Licensing and Oversight Product Lines impact fees for service. All other resources impact annual fees.

## **MAJOR ACTIVITIES**

The major activities within the Fuel Facilities Business Line include the following:

- Ensure that licensed fuel facilities operate safely and securely and in accordance with the NRC rules, regulations, and license requirements.
- Perform licensing and oversight activities for 12 fuel facilities, including conversion, enrichment, fuel fabrication, and uranium deconversion facilities. Licensing actions include reviews of license amendments, decommissioning funding plans, emergency plans, and security plans. There are currently seven facilities operating, one under construction, and four licensed facilities that have not started construction.
- Support the regulation of 10 university and test research facilities licensees under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 70, “Domestic Licensing of Special Nuclear Material.”
- Conclude the license renewal review for one facility under 10 CFR Part 40, “Domestic Licensing of Source Material.”
- Conduct inspections, force-on-force exercises, and readiness reviews.
- Conduct rulemaking for fuel cycle facilities in security-related areas.
- Support U.S. nonproliferation activities by implementing international safeguards and licensing of the import and export of nuclear materials and equipment.
- Perform activities that support the NRC’s work with international counterparts, including obligation tracking, approvals, and treaty compliance; support under DOE 10 CFR Part 810, “Assistance to Foreign Atomic Energy Activities”; and review of the import and export of nuclear materials, technology, and equipment. Support bilateral visits with other countries possessing or obtaining U.S.-origin SNM with regard to physical protection and material control and accounting. Provide technical assistance to IAEA and support U.S. initiatives to enhance international safeguards and verification programs.
- Support the tracking of source material and SNM inventories, material balances, and transactions for more than 400 commercial manufacturers and users in the United States, in cooperation with DOE, through the Nuclear Material Management and Safeguards System database.

## FUEL FACILITIES



\* Values provided for FY 2018–FY 2019 are projections.

**Figure 7: Fuel Facilities Workload**

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2017

The significant accomplishments within the Fuel Facilities Business Line include the following:

- Completed an Augmented Inspection Team (AIT) for the Westinghouse scrubber condition reported to the NRC on July 14, 2016, issued an inspection report, and examined lessons learned for generic applicability. The NRC also issued a confirmatory order in FY 2017, documenting the results of the alternative dispute resolution process.
- Delivered to the Commission the rulemaking package for revising 10 CFR Part 75, “Safeguards on Nuclear Material—Implementation of U.S./IAEA Agreement,” in March 2017. The revision provides reporting requirements for licensees in the U.S. Caribbean Territories, in accordance with the modified Small Quantities Protocol that is part of the U.S. agreements with IAEA. The Commission approved the revision in October 2017, and the NRC is implementing the new requirements.
- Delivered to the Commission SECY-17-0099, “Proposed Rule—Cyber Security at Fuel Cycle Facilities,” and its associated draft regulatory guide.
- Completed the review of the license renewal application for the Vallecitos Nuclear Center by General Electric-Hitachi Nuclear Energy America, LLC, for NRC SNM License 960 to receive, possess, and store SNM and its associated activation and fission products. The license was renewed for a term of 10 years, with an expiration date of August 9, 2027.
- Continued efforts to close Generic Letter 2015-01, “Treatment of Natural Phenomena Hazards in Fuel Cycle Facilities,” dated June 22, 2015. All but one licensee has received closure letters related to Generic Letter 2015-01.

**OTHER INDICATORS**

**LICENSING**

Percentage of Fuel Cycle Licensing Reviews Completed in 150 Days or Less (FF-04)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	80	77	Eleven licensing actions exceeded the 150-day performance metric because of complex licensing issues. Improvement plans include sharing lessons learned, evaluating the licensing tracking process, and increasing management oversight.
FY 2016	80	91	
FY 2017	80	90	
FY 2018	80		
FY 2019	80		

Percentage of Fuel Cycle Licensing Reviews Completed in 1.5 Years or Less (FF-05)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	100	98	One licensing action exceeded the 1.5-year metric because of a significantly expanded scope from the initial review of the action. Improvement plans include reviewing licensing guidance to see if updates are needed, sharing lessons learned, and communicating with licensees about potential impacts to schedules as issues arise or changes are requested.
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

**OVERSIGHT**

Percentage of Technical Allegation Reviews Completed in 150 Days or Less (FF-06)			
Fiscal Year	Target	Actual	Comment
FY 2014	90	95	
FY 2015	90	100	
FY 2016	90	100	
FY 2017	90	100	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	NA		

Percentage of Technical Allegation Reviews Completed in 180 Days or Less (FF-07)			
Fiscal Year	Target	Actual	Comment
FY 2014	95	97	
FY 2015	95	100	
FY 2016	95	100	
FY 2017	95	100	
FY 2018	95		
FY 2019	95		

## FUEL FACILITIES

Percentage of Technical Allegation Reviews Completed in 360 Days or Less (FF-08)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	97	One allegation was open for 395 days; therefore, the business line did not meet the allegation timeliness metric of closing 100 percent of all allegations in 360 days.
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

Percentage of Operating Fuel Facilities for which the Core Inspection Program Was Completed as Planned During the Most Recently Ended Inspection Cycle (FF-09)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

## EVENT RESPONSE

Percentage Assessment of the Agency's Readiness to Respond to a Nuclear or Terrorist Emergency Situation or Other Events of National Interest* (FF-10)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

\*This performance index provides a single overall performance indicator of the agency's readiness to respond to a nuclear or terrorist emergency situation or other event of national interest. The index measures several activities in the Incident Response Program that are critical for supporting the agency's preparedness and response ability.

## GENERIC HOMELAND SECURITY

Percentage of Information Assessment Team Advisories Issued within 24 Hours of Notification (FF-11)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	90	100	
FY 2017	90	100	
FY 2018	90		
FY 2019	90		

**NUCLEAR MATERIALS USERS**

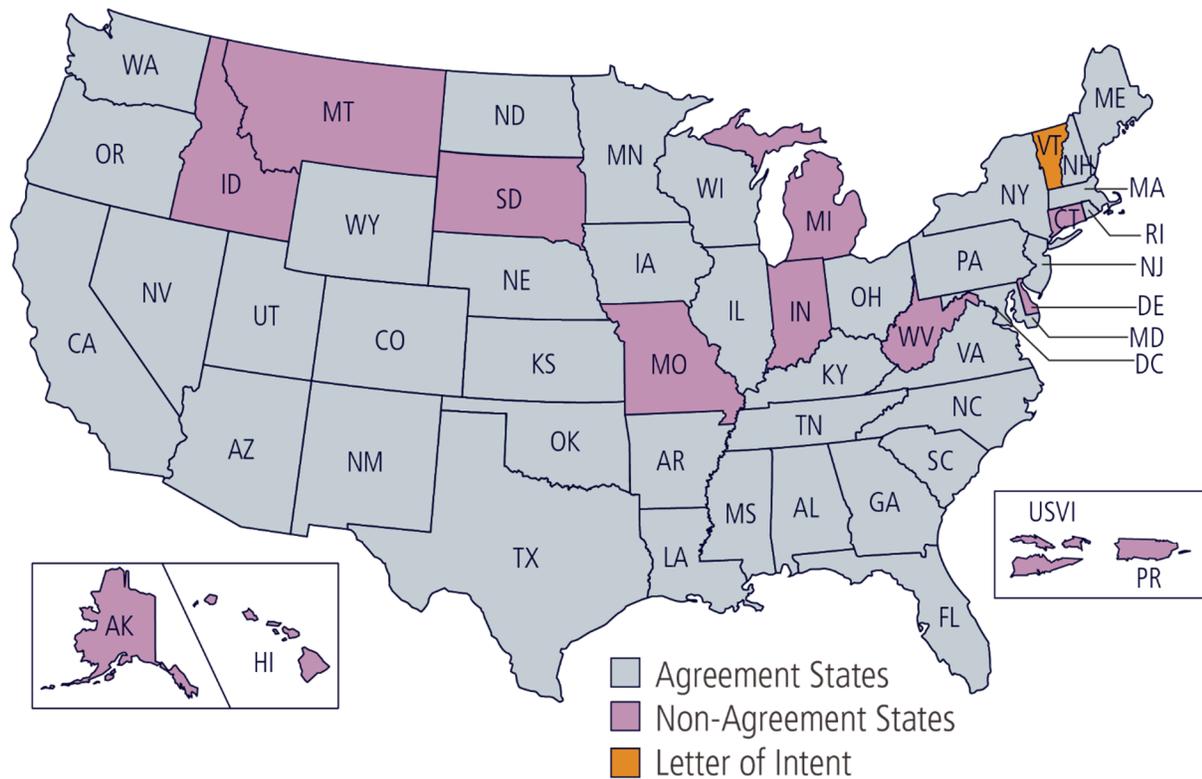
<b>Nuclear Materials Users by Product Line</b> (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Event Response	0.7	3.8	0.7	4.0	0.6	3.0	(0.1)	(1.0)
Generic Homeland Security	11.5	14.6	10.9	15.0	10.6	15.0	(0.3)	0.0
International Activities	9.1	15.8	9.1	16.0	8.5	14.0	(0.6)	(2.0)
Licensing	9.2	47.0	9.4	49.0	9.6	48.0	0.2	(1.0)
Oversight	13.1	56.7	12.5	60.0	11.2	51.0	(1.3)	(9.0)
Research	0.2	1.0	0.2	1.0	0.2	1.0	0.0	0.0
Rulemaking	1.5	7.8	1.4	8.0	2.0	11.0	0.6	3.0
State, Tribal, and Federal Programs	5.6	30.1	5.6	31.0	5.0	26.0	(0.6)	(5.0)
Mission Support & Supervisors	8.8	48.0	8.7	50.0	8.4	43.0	(0.3)	(7.0)
Training	2.6	3.6	2.5	4.0	1.6	3.0	(0.9)	(1.0)
Travel	2.2	0.0	2.6	0.0	2.9	0.0	0.3	0.0
<b>Total</b>	<b>\$64.4</b>	<b>228.5</b>	<b>\$63.5</b>	<b>238.0</b>	<b>\$60.6</b>	<b>215.0</b>	<b>\$(2.9)</b>	<b>(23.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

Nuclear Materials Users Business Line activities support the licensing, inspection, event evaluation, research, incident response, allegations review, enforcement, import and export authorizations, rulemaking, programmatic oversight of Agreement States, and major information technology systems to maintain the regulatory safety and security infrastructure needed to process and handle nuclear materials.

Agreement States are those States that have signed an agreement with the NRC in accordance with Section 274.b of the Atomic Energy Act of 1954, as amended, which authorizes the NRC to discontinue, and the State to assume, regulatory authority over certain materials cited in the Act. With respect to Agreement States, the NRC has programmatic oversight responsibility to periodically review the State programs to ensure adequacy and compatibility. By fiscal year (FY) 2019, Wyoming is expected to become an Agreement State, increasing the total number of Agreements States to 38.

## NUCLEAR MATERIALS USERS



**Figure 8: Agreement States**

Nuclear Materials Users Business Line security activities include the implementation and operation of a national registry to improve control of radioactive sources of concern<sup>2</sup> and to prevent their malevolent use. The Integrated Source Management Portfolio has integrated three core systems, consisting of the National Source Tracking System, Web-Based Licensing (WBL), and the License Verification System. The systems provide one management mechanism to license and track sources and other radioactive materials. Security activities also include conducting inspections at materials facilities with radioactive materials in quantities of concern and pre-licensing reviews of new materials license applicants.

### CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION

Resources decrease within the International Activities and State, Tribal, and Federal Programs Product Lines to align with historical resource utilization. Resources within the Rulemaking Product Line increased as a result of agency reallocations made to support the Rulemaking Center of Expertise. Resources decrease within the Oversight and Mission Support Product Lines largely as a result of the rebaselining of agency resources.

Generally, for the Nuclear Materials Users Business Line, budgeted resources impact annual fees charged to licensees in accordance with 10 CFR Part 171, "Annual Fees for Reactor

<sup>2</sup> "Radioactive sources of concern" refers to sources with quantities of radioactive material meeting or exceeding the Category 1 and Category 2 activity levels contained in 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Materials."

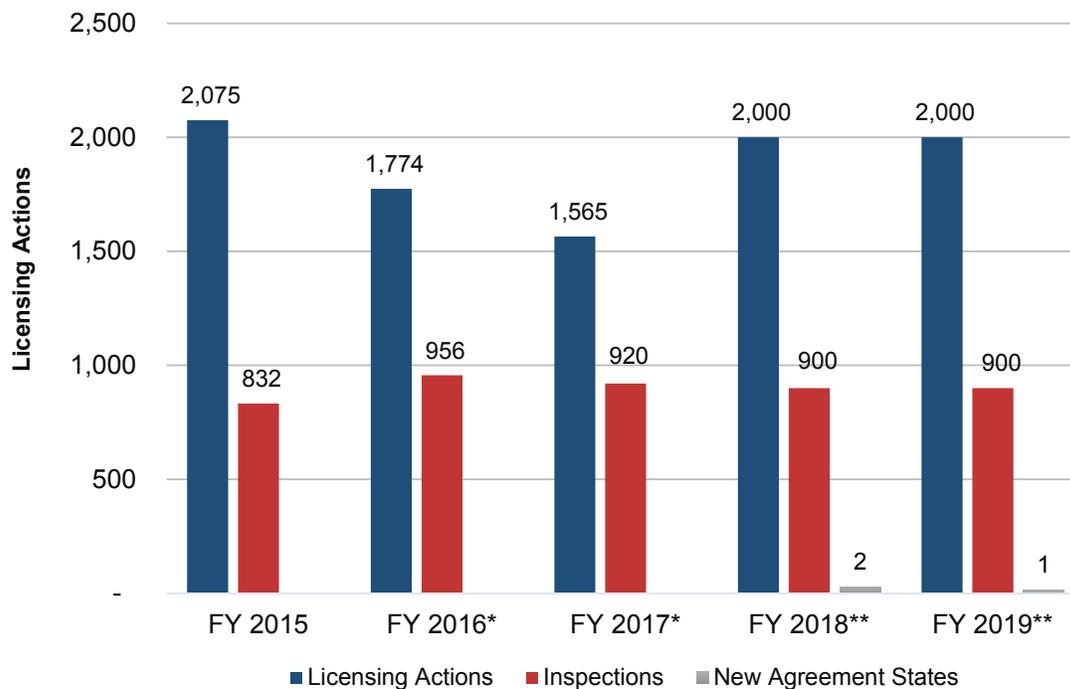
Licenses and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC.”

## **MAJOR ACTIVITIES**

The major activities within the Nuclear Materials Users Business Line include the following:

- Support the completion of approximately 2,000 materials licensing actions (new applications, amendments, renewals, and terminations).
- Complete approximately 900 routine health, safety, and security inspections, as well as reciprocity and reactive inspections, and inspections for certain general licensees.
- Support review of one Agreement State application. Vermont has submitted a draft application to become an Agreement State.
- The Rulemaking Center of Expertise will coordinate rulemaking activities, implement the strategy to develop procedures to discontinue certain rulemaking activities; continue the review and processing of petitions for rulemaking in accordance with internal procedures and guidance, and engage internal and external stakeholders in a retrospective review of NRC regulations to identify administrative regulations that may be outdated or duplicative and that can be eliminated.
- Oversee and support the Agreement States’ regulation of approximately 17,000 specific and 150,000 general licenses, conduct nine Integrated Materials Performance Evaluation Program (IMPEP) reviews, and review Agreement State incidents and events as reported.
- Implement the agency’s Tribal Policy Statement, including outreach, guidance development, and staff training on Tribal issues; coordinating with other Federal agencies on Tribal matters and NRC projects involving Tribal consideration; and updating contact databases and mapping tools.
- Support coordination and liaison for homeland security regulatory initiatives, control and track imports and exports of sources, and develop and implement the Integrated Source Management Portfolio.
- Satisfy international treaty and convention obligations, as well as statutory mandates. This includes implementing the Code of Conduct on the Safety and Security of Radioactive Sources.
- Support a wide range of cooperative programs to exchange information with regulatory counterparts bilaterally and multilaterally to mutually enhance the agencies’ respective programs.
- Support assistance programs and activities to help foreign regulatory counterparts develop or enhance their national regulatory infrastructures and programs, as well as strengthen controls over radioactive sources, consistent with the Code of Conduct on the Safety and Security of Radioactive Sources.

## NUCLEAR MATERIALS USERS



\*The decline in completed licensing actions in FY 2016 and FY 2017 was caused by a fluctuation in the number of licensing action requests the NRC received during the FYs.

\*\* Values provided for FY 2018–FY 2019 are projections.

**Figure 9: Nuclear Materials Users Workload**

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2017

The significant accomplishments within the Nuclear Material Business Line include the following:

- Completed 1,565 materials licensing actions and 920 routine health and safety inspections. The NRC completed 93 percent of new application and license amendment reviews within 90 days of receipt, and 96 percent of license renewal and sealed-source and device design reviews within 180 days of receipt.
- Amended regulations governing the licensing and distribution for the medical use of byproduct materials to make the regulations clearer, more risk-informed, and up-to-date.
- Provided significant support to Wyoming’s efforts to become an Agreement State.
- Participated in numerous meetings of technical and legal experts on the International Atomic Energy Agency’s Code of Conduct for the Safety and Security of Radioactive Sources, to ensure that its implementing guidance is clear and accurate. Worked with other U.S. Government agencies, such as the U.S. Department of State, DOE, U.S. Department of Commerce, the National Security Council, and the International Atomic Energy Agency to develop international security guidance documents for radioactive sources.
- Issued a report to Congress on the results of the NRC’s program review of its effectiveness in implementing 10 CFR Part 37, “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material.” The NRC conducted the program review under Section 403 of Public Law 113-235, “Consolidated and Further Continuing

Appropriations Act, 2015” (Appropriations Act). This act required that the NRC assess the effectiveness of 10 CFR Part 37, two years following its implementation by its licensees. Based on the results of its review, the NRC concluded that 10 CFR Part 37 requirements are effective in ensuring the security of Category 1 and Category 2 materials.

- Made significant progress on enhancing the NRC’s Tribal outreach program, including issuance of a Tribal Policy Statement establishing general policy principles to promote effective government-to-government interactions with Indian Tribes and to encourage Tribal involvement in the areas for which the Commission has jurisdiction.
- Continued effective oversight and support of Agreement State programs by conducting nine IMPEP reviews. Additionally, conducted 21 Agreement State regulation compatibility reviews associated with various NRC regulations.
- Provided technical support to U.S. Executive Branch agencies and participated in negotiations to enter into new, and implement existing, bilateral agreements between the U.S. Government and the governments of several countries establishing the framework for cooperation in the peaceful uses of nuclear energy. Such agreements must be in place for the NRC to approve exports of reactor related technology, major reactor equipment, and reactor fuel. The NRC supported new agreements with Mexico and the United Kingdom.

**OTHER INDICATORS**

**LICENSING**

Percentage of Licensing Application Reviews for New Materials Licenses and License Amendments Completed in 90 Days or Less (excluding Change of Control Amendments*(NM-01)			
Fiscal Year	Target	Actual	Comment
FY 2014	92	94	
FY 2015	92	95	
FY 2016	92	95	
FY 2017	92	93	
FY 2018	92		
FY 2019*	92		

\*The exclusion of change control amendments in this indicator description was made for FY 2019. The process for reviewing change of control amendments involves public notification, and legal steps that are more complex and require more time than for other typical amendment reviews. Hence, change of control amendments are now being captured under NM-03.

## NUCLEAR MATERIALS USERS

Percentage of Licensing Application Reviews for New Materials Licenses and License Amendments (excluding Change of Control Amendments)* Completed in 2 Years or Less (NM-02)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019*	100		

\*The exclusion of change of control amendments in this indicator description was made for FY 2019. The process for reviewing change of control amendments involves public notification, and legal steps that are more complex and require more time than for other typical amendment reviews. Hence, change of control amendments are now being captured under NM-04.

Percentage of Licensing Application Reviews for Materials License Renewals and Sealed Source and Devices Reviews and Associated Licensing Actions, and Change of Control Amendments* Completed in 180 Days or Less (NM-03)			
Fiscal Year	Target	Actual	Comment
FY 2014	92	93	
FY 2015	92	94	
FY 2016	92	94	
FY 2017	92	96	
FY 2018	92		
FY 2019*	92		

\*As previously noted, change of control amendments was added to this indicator description for FY 2019. Hence, change of control amendments that were being captured in NM-01 in FY 2018 and prior years will be captured under NM-03 starting in FY 2018.

Percentage of Licensing Application Reviews for Materials License Renewals and Sealed Source and Devices Reviews and Associated Licensing Actions, and Change of Control Amendments* Completed in 2 Years or Less (NM-04)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019*	100		

\*As previously noted, the inclusion of change of control amendments was added to this indicator description for FY 2019. Hence, change of control amendments that were being captured in NM-02 will be captured under NM-04.

**OVERSIGHT**

<b>Percentage of Safety Inspections of Materials Licensees Completed on Time (NM-05)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	98	100	
FY 2015	98	99	
FY 2016	98	100	
FY 2017	98	100	
FY 2018	98		
FY 2019	98		

<b>Percentage of Technical Allegation Reviews Completed in 150 Days or Less (NM-06)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	90	97	
FY 2015	90	96	
FY 2016	90	94	
FY 2017	90	100	
FY 2018	Discontinued		Indicator will be tracked internally.
FY 2019	NA		

<b>Percentage of Technical Allegation Reviews Completed in 180 Days or Less (NM-07)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	95	97	
FY 2015	95	100	
FY 2016	95	95	
FY 2017	95	100	
FY 2018	95		
FY 2019	95		

<b>Percentage of Technical Allegation Reviews Completed in 360 Days or Less* (NM-08)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015*	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

\*The FY 2015 Congressional Budget Justification erroneously listed FY 2013 through FY 2015 targets as 330 days.

<b>Percentage of Enforcement Actions Where No Investigation Is Involved Completed in 160 Days or Less (NM-09)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	96	The staff will focus on early identification of enforcement cases that are likely to involve complex technical or policy issues that need to be resolved across multiple program offices to ensure timely resolution.
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

## NUCLEAR MATERIALS USERS

Percentage of Enforcement Actions in which Investigation Is Involved Completed in 330 Days or Less (NM-10)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	86	One action was completed beyond the target date due to the challenging nature of the issued involved.
FY 2018	100		
FY 2019	100		

Percentage of Investigations That Developed Sufficient Information To Reach a Conclusion Regarding Wrongdoing Completed within 12 Months or Less (NM-11)			
Fiscal Year	Target	Actual	Comment
FY 2014	85	90	
FY 2015	85	95	
FY 2016	85	88	
FY 2017	85	89	
FY 2018	85		
FY 2019	85		

Percentage of Investigations Completed in Time To Initiate Civil Enforcement and/or Criminal Prosecution Action (NM-12)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

## RESEARCH

Percentage of Major Milestones for Critical Research Programs Completed On or Before Their Due Date* (NM-15)			
Fiscal Year	Target	Actual	Comment
FY 2014	90	100	
FY 2015	90	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2015.
FY 2016	90	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2016.
FY 2017	90	N/A	There were no critical milestones associated with the research activities.
FY 2018	Discontinued		The projected level of research for this business line is not expected to meet the criteria of this indicator.
FY 2019	NA		

\*Critical research programs typically respond to high-priority needs from the Commission and the NRC's licensing organizations. Critical research programs on the highest priority needs are identified at the beginning of the FY.

<b>Combined Score on a Scale of 1 to 5 for the Technical Quality of Agency Research Technical Products* (NM-16)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	3.75	5.0	
FY 2015	3.75	N/A	No research products produced for this business line during FY 2015.
FY 2016	3.75	N/A	No research products produced for this business line during FY 2016.
FY 2017	3.75	4.0	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	NA		

\*The NRC has developed a process to measure the quality of research products on a 5-point scale using surveys of end-users to determine the usability and value-added of the products. As appropriate, other mechanisms will be developed and added to this process to measure the quality of research products.

**EVENT RESPONSE**

<b>Percentage Assessment of the Agency's Readiness To Respond to a Nuclear or Terrorist Emergency Situation or other Event of National Interest (NM-17)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

**GENERIC HOMELAND SECURITY**

<b>Percentage of Information Assessment Team Advisories Issued within 24 Hours of Notification (NM-18)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	90	100	
FY 2017	90	100	
FY 2018	90		
FY 2019	90		

**STATE, TRIBAL AND FEDERAL PROGRAMS**

<b>Percentage of Integrated Materials Performance Evaluation Program Review Reports Completed within 30 Days of the Management Review Board Meeting (NM-20)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY		
FY 2015	2016		
FY 2016	85	75	The NRC increased management oversight to ensure the timeliness of reports. The NRC will continue to monitor reports for timeliness.
FY 2017	85	100	
FY 2018	Discontinued		Replaced by the number of IMPEP review reports that were not completed within 30 days of the Management Review Board meeting (NM-21).
FY 2019	NA		

**NUCLEAR MATERIALS USERS**

Number of Integrated Materials Performance Evaluation Program Review Reports Completed within 30 Days of the Management Review Board Meeting (NM-21)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2018		
FY 2015			
FY 2016			
FY 2017			
FY 2018	≤2		
FY 2019	≤2		

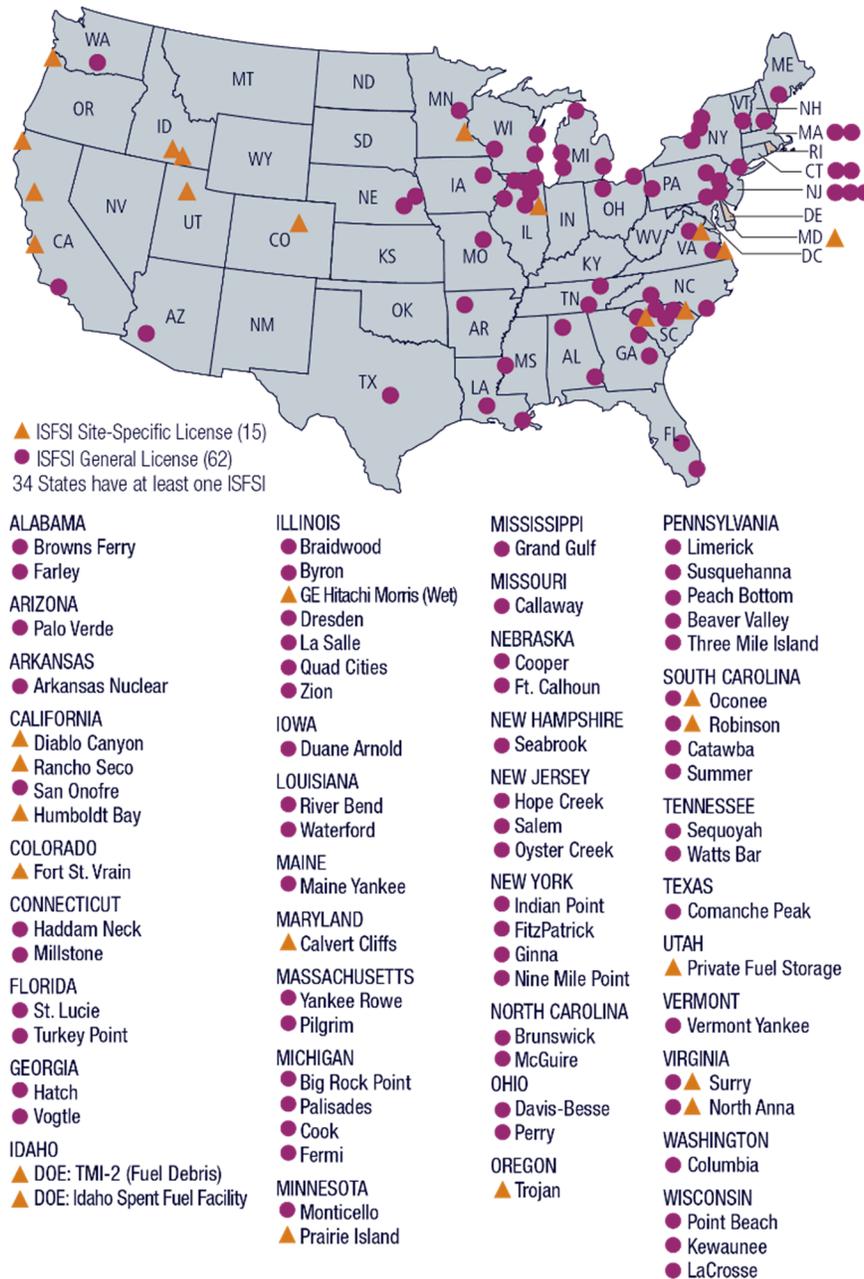
**SPENT FUEL STORAGE AND TRANSPORTATION**

<b>Spent Fuel Storage and Transportation by Product Line</b>								
<b>(Dollars in Millions)</b>								
<b>Product Line</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
International Activities	0.7	3.9	0.9	4.0	0.6	2.0	(0.3)	(2.0)
Licensing	13.4	51.8	11.2	53.0	16.1	62.0	4.9	9.0
Oversight	2.0	11.5	2.0	12.0	2.5	13.0	0.5	1.0
Research	2.7	6.0	3.0	6.0	1.0	2.0	(2.0)	(4.0)
Rulemaking	2.7	10.8	1.9	11.0	1.1	6.0	(0.8)	(5.0)
Mission Support and Supervisors	2.9	15.6	2.7	16.0	2.9	15.0	0.2	(1.0)
Training	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Travel	0.4	0.0	0.5	0.0	0.6	0.0	0.1	0.0
<b>Total</b>	<b>\$24.8</b>	<b>99.6</b>	<b>\$22.3</b>	<b>102.0</b>	<b>\$24.8</b>	<b>100.0</b>	<b>\$2.5</b>	<b>(2.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The NRC conducts the activities under the Spent Fuel Storage and Transportation Business Line to ensure the safe and secure storage of spent nuclear fuel (SNF) and the safe transport of radioactive materials. These activities include conducting safety, security, and environmental reviews of SNF storage casks and independent spent fuel storage installation (ISFSI) license applications, as well as performing safety and security reviews of radioactive material transportation packages. This work includes reviewing storage system and ISFSI renewal applications. It also includes developing and updating related regulations and guidance, conducting safety inspections of transportation package and storage cask vendors and fabricators, observing ISFSI operations, and performing security inspections of ISFSIs.

# SPENT FUEL STORAGE AND TRANSPORTATION



**Figure 10: Licensed and Operating Independent Spent Fuel Storage Installations by State**

### CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION

Resources increase primarily under the Licensing Product Line to support safety, security, emergency preparedness, and environmental reviews for two concurrent applications for a consolidated interim storage facility; the effort to update/consolidate the standard review plan; anticipated legal activities; and to support ISFSI license renewals. All increases are offset by decreases in rulemaking for ultimate disposal activities, research activities, and the alignment of international activity resources with projected workload.

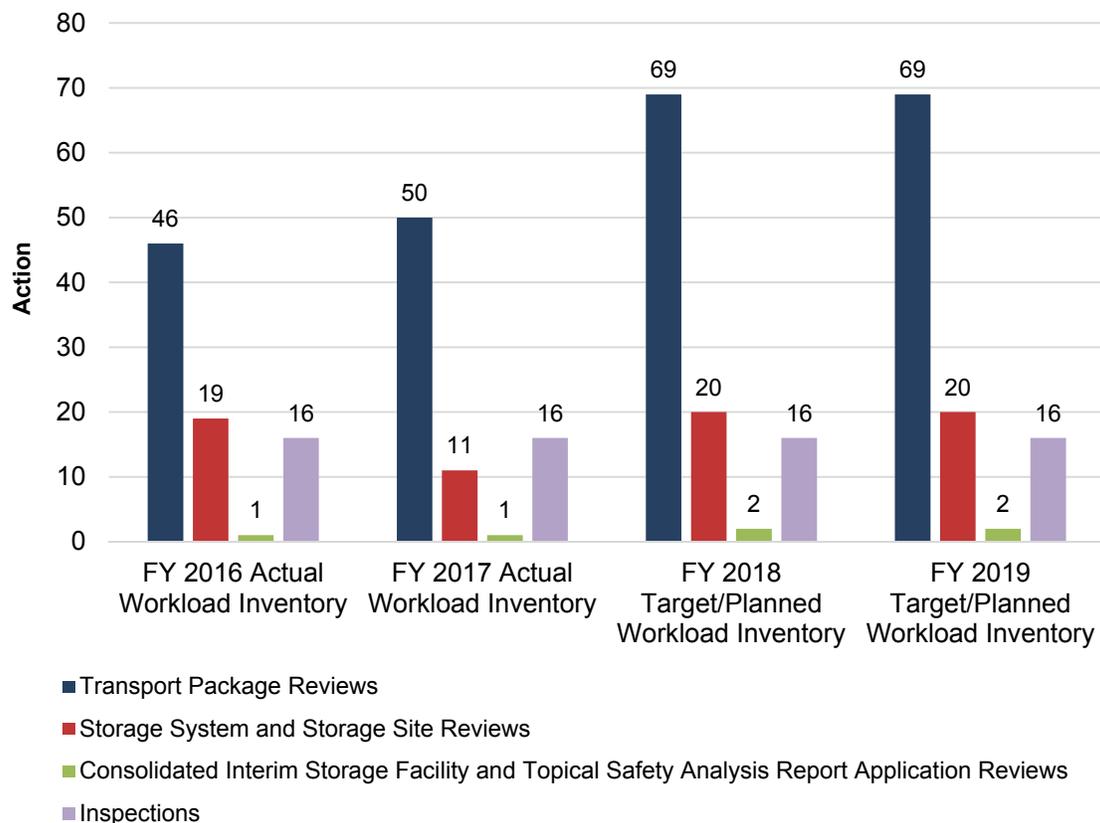
Generally, resources budgeted in the Licensing and Oversight Product Lines impact fees for service. All other resources impact annual fees.

### MAJOR ACTIVITIES

The major activities within the Spent Fuel Storage and Transportation Business Line include the following:

- Review new applications, amendment requests, and license renewal applications for transportation packages and SNF storage applications to ensure the safe and secure storage of SNF and safe transport of other radioactive materials.
- Conduct safety inspections of storage and transportation cask vendors, fabricators, and designers, as well as ISFSI pad construction, dry-run operations, initial loading campaigns, and routine operations.
- Conduct the technical, legal, and environmental review for consolidated interim storage facility applications.
- Review security activities associated with radioactive materials in quantities of concern and with transportation security route approvals.
- Initiate and process spent fuel storage and transportation rulemakings and associated regulatory guidance documents.
- Coordinate with the International Atomic Energy Agency to compare regulatory frameworks, share research on storage and transportation matters, and harmonize the certification of transport packages and licensing of storage cask designs with international standards.
- Satisfy international treaty and convention obligations, as well as statutory mandates. This includes the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
- Provide oversight of the NRC's safeguards and ISFSI security inspection program.

## SPENT FUEL STORAGE AND TRANSPORTATION



**Figure 11: Spent Fuel Storage and Transportation Workload**

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2017

The significant accomplishments within the Spent Fuel and Transportation Business Line include the following:

- Approved North Anna Nuclear Generating Station ISFSI amendment to allow storage of high burnup spent fuel in a modified cask as part of U.S. Department of Energy/Electric Power Research Institute-sponsored research and development project.
- Completed the review of Waste Control Specialists' responses to requests for supplemental information pertaining to its proposed consolidated interim storage facility and completed the acceptance review process. The application was accepted for NRC review and docketed.
- Completed 50 transport package design and 11 storage cask and facility license reviews. The agency also conducted 16 inspections of activities related to radioactive material package certificate holders and spent fuel storage cask certificate holders, as well as inspections at ISFSIs to ensure that casks are being designed, fabricated, and used according to approved safety requirements.
- Completed eight knowledge management reports for high-level waste disposal, covering topics in the areas of (1) climate and infiltration, (2) regional ground water flow models, (3) a computational tool for performance confirmation, (4) sensor and monitoring techniques for performance confirmation, (5) seismic fragility curves of surface facilities, (6) seismic hazard analysis, (7) soil stability and site response to seismicity, and (8) long-term alloy 22 passivity and actinide sequestration.

**SPENT FUEL STORAGE AND TRANSPORTATION**

**OTHER INDICATORS**

**LICENSING**

<b>Percentage of Storage Container and Installation Design Reviews Completed in 13 Months or Less* (SF-01)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	80	94	
FY 2015	80	84	
FY 2016	80	89	
FY 2017	80	63	The target was not met as a result of insufficient staffing to support design reviews. Management has developed staffing strategies to address timeliness.
FY 2018	80		
FY 2019	80		

\*Modified from 12.6 months to 13 months in FY 2018 to simplify the measurement period.

<b>Percentage of Storage Container and Installation Design Reviews Completed in 2 Years or Less (SF-02)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	95	The NRC developed a revised work prioritization strategy to improve this metric.
FY 2017	100	100	
FY 2018	90		The target was reduced to allow for a few complex cases that are expected to take significantly longer than 2 years to complete.
FY 2019	90		

<b>Percentage of Transportation Container Design Reviews Completed in 8 Months or Less* (SF-03)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	80	96	
FY 2015	80	90	
FY 2016	80	93	
FY 2017	80	96	
FY 2018	80		
FY 2019	80		

\*Modified from 7.4 months to 8 months in FY 2018 to simplify the measurement period.

<b>Percentage of Transportation Container Design Reviews Completed in 2 Years or Less (SF-04)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	90		The target was reduced to allow for a few complex cases that are expected to take significantly longer than 2 years to complete.
FY 2019	90		

## SPENT FUEL STORAGE AND TRANSPORTATION

### OVERSIGHT

Number of Spent Fuel Storage and Transportation Inspections Completed (SF-06)			
Fiscal Year	Target	Actual	Comment
FY 2014	16	18	
FY 2015	16	19	
FY 2016	16	16	
FY 2017	16	16	
FY 2018	16		
FY 2019	16		

### RESEARCH

Percentage of Major Milestones for Critical Research Programs Completed On or Before Their Due Date* (SF-08)			
Fiscal Year	Target	Actual	Comment
FY 2014	90	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2014, FY 2015, and FY 2016.
FY 2015	90	N/A	
FY 2016	90	N/A	
FY 2017	90	N/A	There were no critical milestones associated with the research activities.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

\*Critical research programs typically respond to high-priority needs from the Commission and the NRC's licensing organizations. Critical research programs for the highest priority needs are identified at the beginning of the FY.

Combined Score on a Scale of 1 to 5 for the Technical Quality of Agency Research Technical Products* (SF-09)			
Fiscal Year	Target	Actual	Comment
FY 2014	3.75	5.0	
FY 2015	3.75	5.0	
FY 2016	3.75	4.68	
FY 2017	3.75	5.0	
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	N/A		

\*The NRC has developed a process to measure the quality of research products on a 5-point scale using surveys of end-users to determine the usability and value-added of the products. As appropriate, other mechanisms will be developed and added to this process to measure the quality of research products.

**DECOMMISSIONING AND LOW-LEVEL WASTE**

<b>Decommissioning and Low-Level Waste by Product Line</b> (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
International Activities	0.8	3.9	0.8	4.0	1.2	6.0	0.4	2.0
Licensing	16.2	64.4	15.6	66.0	12.2	49.0	(3.4)	(17.0)
Oversight	4.8	24.0	4.8	25.0	5.4	25.0	0.6	0.0
Research	0.3	0.0	0.0	0.0	0.5	1.0	0.5	1.0
Rulemaking	0.8	4.9	1.3	5.0	1.8	9.0	0.5	4.0
Mission Support and Supervisors	2.6	14.6	2.6	15.0	2.6	14.0	0.0	(1.0)
Training	0.7	0.0	0.7	0.0	0.8	0.0	0.1	0.0
Travel	0.6	0.0	0.7	0.0	0.9	0.0	0.2	0.0
<b>Total</b>	<b>\$26.8</b>	<b>111.8</b>	<b>\$26.4</b>	<b>115.0</b>	<b>\$25.4</b>	<b>104.0</b>	<b>\$(1.0)</b>	<b>(11.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

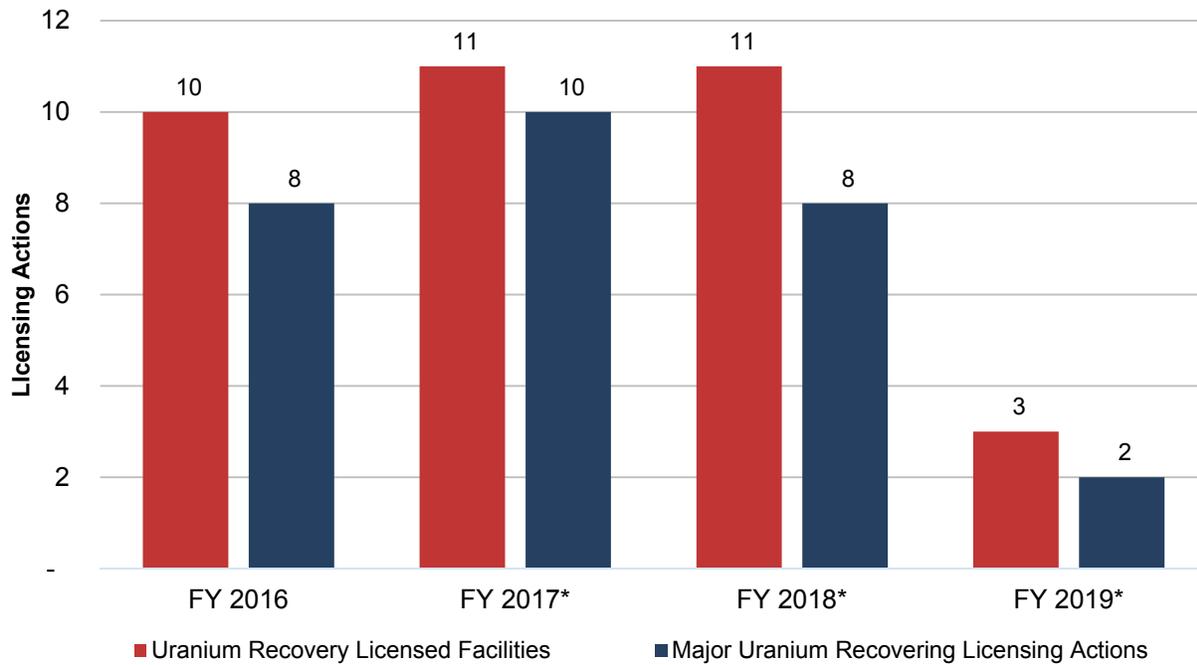
The activities under the Decommissioning and Low Level-Waste (LLW) Business Line include the licensing and oversight of sites undergoing decommissioning and uranium recovery facilities. They also include the oversight of the national LLW management program, and the U.S. Department of Energy (DOE) waste management activities at the Savannah River Site and the Idaho National Laboratory Waste Incidental to Reprocessing (WIR) facilities consistent with the NRC’s responsibilities under the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005. Other activities include interfacing with licensees, applicants, Federal and State agencies, the public, and Native American Tribal governments.

Decommissioning is the safe removal of a nuclear facility from service and the reduction of residual radioactivity to a level that permits the termination of the NRC license. The NRC rules for decommissioning establish site release criteria and provide for unrestricted, and under certain conditions, restricted release of a site. The NRC regulates the decommissioning of complex materials and fuel cycle facilities, power reactors, research and test reactors, and uranium recovery facilities, with the ultimate goal of license termination.



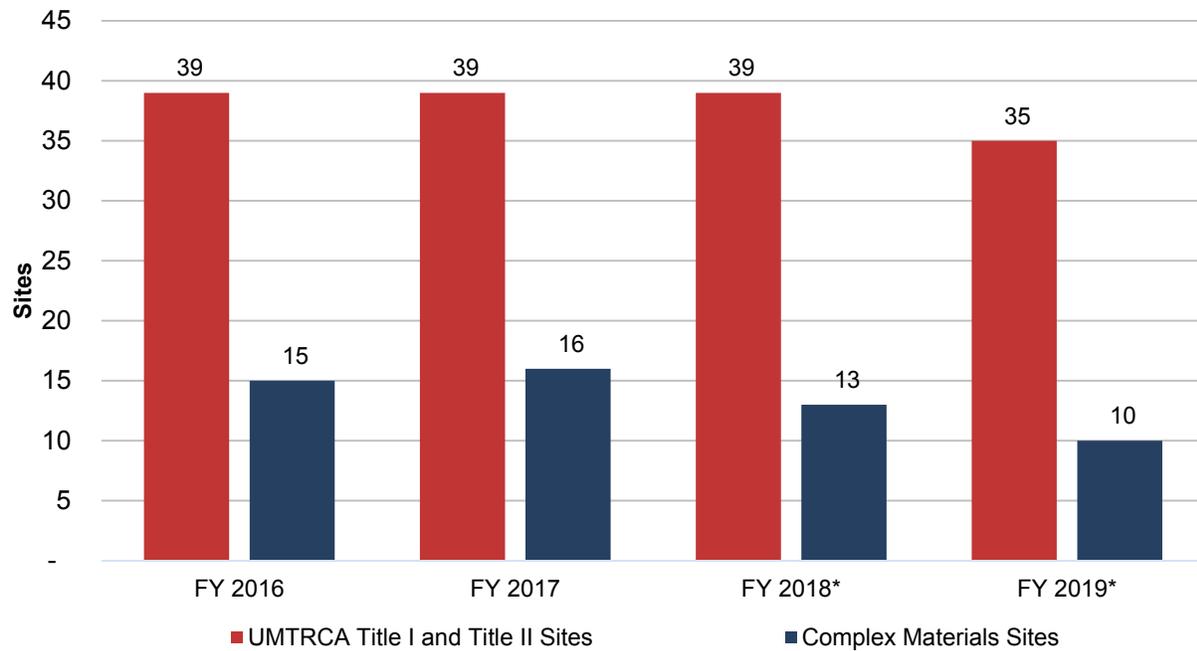
- Support oversight of the non-military radium program.
- Continue to support the licensing and oversight of nine complex materials sites undergoing decommissioning and depleted uranium sites, and the execution of the memorandum of understanding with the U.S. Department of Defense for military, naturally occurring and accelerator-produced radioactive material sites.
- Support the licensing and oversight of five private uranium mill sites undergoing decommissioning and 30 decommissioned uranium mill disposal facilities that are under long-term care, surveillance, and maintenance by DOE.
- Conduct two major uranium recovery licensing activities in non-Agreement States, two hearings, and oversight and licensing activities for the three remaining licensed facilities (assuming Wyoming becomes an Agreement State).
- Support one Agreement State uranium recovery Integrated Materials Performance Evaluation Program (IMPEP) evaluation.
- Support the National LLW Program, including developing guidance, providing support for IMPEP evaluations in the LLW area, and responding to inquiries from Agreement States.
- Provide oversight of the activities related to WIR, including monitoring activities at the DOE Savannah River Site and the Idaho National Laboratory.
- The Rulemaking Center of Expertise will conduct rulemaking activities related to the Decommissioning and LLW Business Line, including rule development, associated guidance development, and environmental reviews.
- Conduct research activities to support the application of new technologies at complex sites and analytical tools used in decommissioning reviews.
- Support cooperative programs to exchange information with regulatory counterparts bilaterally and multilaterally on decommissioning issues, licensing uranium recovery facilities, and developing regulations for the handling and disposal of LLW and decommissioning of power reactors and other nuclear facilities.
- Satisfy international treaty and convention obligations, as well as statutory mandates. This includes the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

**DECOMMISSIONING AND LOW-LEVEL WASTE**



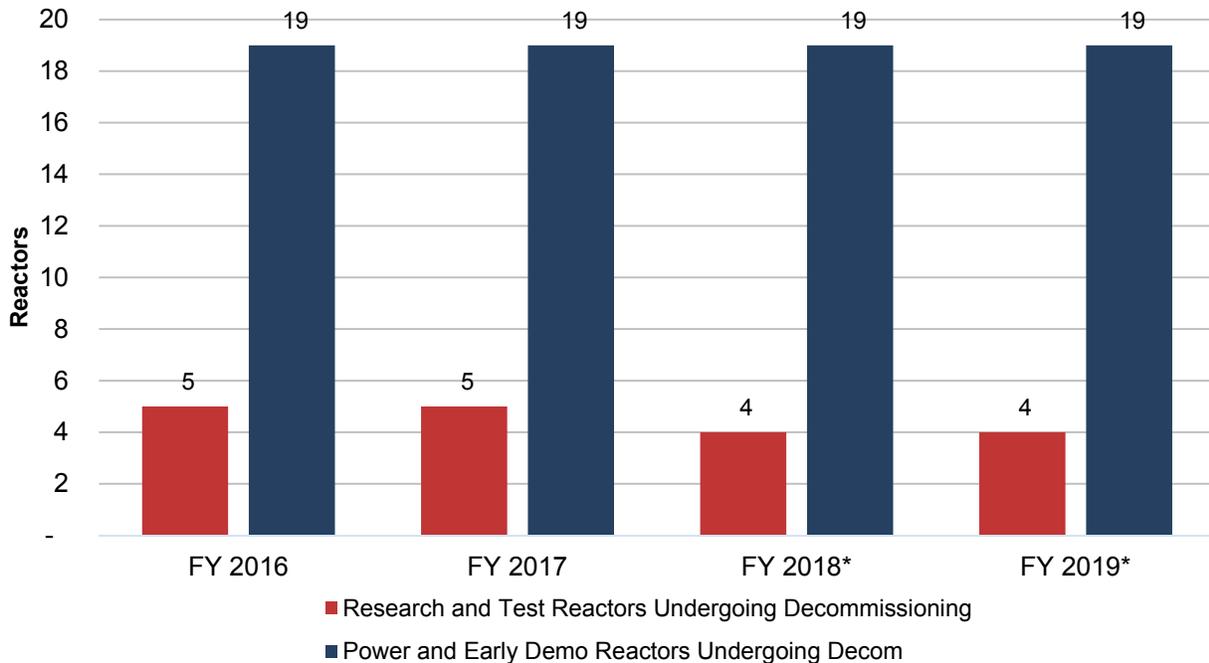
\* Values provided for FY 2018-FY 2019 are projections.

**Figure 13: Uranium Recovery Licensed Facilities and Major Licensing Actions**



\* Values provided for FY 2018-FY 2019 are projections.

**Figure 14: Uranium Mill Tailings Radiation Control Act of 1978 and Complex Materials Sites**



**Figure 15: Research and Test Reactors and Power/Early Demonstration Reactors Undergoing Decommissioning**

**SIGNIFICANT ACCOMPLISHMENTS IN FY 2017**

The significant accomplishments within the Decommissioning and LLW Business Line include the following:

- Engaged with the State of Wyoming as it prepared its application to become an Agreement State.
- Completed the licensing review for AUC LLC’ Reno Creek uranium in situ recovery (ISR) project in Campbell County, WY, which resulted in the issuance of a license.
- Completed the licensing review of a major license amendment for the Uranerz Energy Corporation Nichols Ranch ISR project located in the Powder River Basin of Wyoming. The issued amendment authorized an expansion of licensed activities into 3,680 acres of adjacent wellfields called the Jane Dough.
- Issued an Immediately Effective Order on July 14, 2017, to make Fansteel a co-licensee and to require immediate actions necessary to maintain public health and safety.
- Supported the transfer of funds from the letter of credit to the standby trust for the Hematite and Columbia fuel facilities when Westinghouse was unable to renew the letter of credit during its bankruptcy proceeding. This action ensures that sufficient decommissioning funding will be available.
- Evaluated radiological conditions at non-military sites potentially contaminated with radium. The staff completed 33 out of a planned 39 site visits to assess radiological conditions at the sites.
- Issued a confirmatory order to the Homestake Mining Company (HMC) as a result of alternative dispute resolution related to HMC’s compliance with regulatory and license requirements for activities at Grants, New Mexico site.

## DECOMMISSIONING AND LOW-LEVEL WASTE

- Issued escalated enforcement action to Cameco Power Resources, Inc., for a Severity Level III problem related to a transportation incident involving radioactive sludge that leaked from a package onto a public highway.

## OTHER INDICATORS

### LICENSING

Percentage of Environmental Reviews and Environmental Review Documents Completed as Scheduled (DL-01)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	100		
FY 2019	100		

Percentage of Time Saved in Completing Safety Evaluation Reports through Use of Presubmission Audits (DL-03)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2015		
FY 2015	10*	No data**	*Preliminary target; will undergo further development. **Not enough licensing actions for which conducting a presubmission audit was feasible.
FY 2016	10	25	
FY 2017	10	22	
FY 2018	10		
FY 2019	Discontinued		In the fourth quarter of FY 2016, the NRC was able to report a 25-percent savings for this metric. Given market conditions and the cost of uranium, the NRC does not have any applications to leverage presubmission audits and therefore believes this indicator has served its purpose in showing the value of using presubmission audits.

Percentage of Licensing Actions Completed as Scheduled (DL-05)			
Fiscal Year	Target	Actual	Comment
FY 2014	Yes	Yes	
FY 2015	Yes	NA	In FY 2015, there was an insufficient number of licensing applications using pre-submission audits to report on this metric.
FY 2016	90	100	The target was changed to a percentage beginning in FY 2016 to provide a more informative indicator.
FY 2017	90	98	
FY 2018	90		
FY 2019	90		

**OVERSIGHT**

<b>Percentage of Review or Monitoring Plan Activities for WIR That Are Completed as Scheduled (DL-07)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in		
FY 2015	FY 2016		
FY 2016	80	100	
FY 2017	80	100	
FY 2018	80		
FY 2019	Discontinued		

**RESEARCH**

<b>Percentage of Major Milestones for Critical Research Programs Completed On or Before Their Due Date* (DL-08)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	90	N/A	There were no critical milestones associated with the research activities conducted in this business line in FY 2013, FY 2014, FY 2015, and FY 2016.
FY 2015	90	N/A	
FY 2016	90	N/A	
FY 2017	90	N/A	There were no critical milestones associated with the research activities.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	NA		

\*Critical research programs typically respond to high-priority needs from the Commission and the NRC's licensing organizations. Critical research programs for the highest priority needs are identified at the beginning of the FY.

<b>Combined Score on a Scale of 1 to 5 for the Technical Quality of Agency Research Technical Products* (DL-09)</b>			
Fiscal Year	Target	Actual	Comment
FY 2014	3.75	N/A	No research products produced for this business line during FY 2014.
FY 2015	3.75	5.0	
FY 2016	3.75	4.75	
FY 2017	3.75	N/A	There were no critical milestones associated with the research activities.
FY 2018	Discontinued		Indicator to be tracked internally.
FY 2019	NA		

\*The NRC has developed a process to measure the quality of research products on a five-point scale using surveys of end-users to determine the usability and value-added of the products. As appropriate, other mechanisms will be developed and added to this process to measure the quality of research products.



## HIGH-LEVEL WASTE

High-Level Waste by Product Line (Dollars in Millions)								
Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Licensing	0.9	1.3	0.0	0.0	37.0	85.0	37.0	85.0
Oversight	0.0	0.0	0.0	0.0	0.2	1.0	0.2	1.0
Rulemaking	0.0	0.0	0.0	0.0	1.3	7.0	1.3	7.0
Mission Support and Supervisors	0.0	0.0	0.0	0.0	7.9	29.0	7.9	29.0
Training	0.0	0.0	0.0	0.0	0.4	2.0	0.4	2.0
Travel	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.0
<b>Total</b>	<b>\$0.9</b>	<b>1.3</b>	<b>\$0.0</b>	<b>0.0</b>	<b>\$47.7</b>	<b>124.0</b>	<b>\$47.7</b>	<b>124.0</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The High-Level Waste Business Line supports the NRC's activities involving the proposed Yucca Mountain deep geologic repository for the disposal of spent nuclear fuel and other high-level radioactive waste using appropriations from the Nuclear Waste Fund.

Fiscal year (FY) 2019 resources will support the continuation of the licensing proceeding for the potential authorization to construct a repository. Principal activities would include support to, and restart of, the adjudicatory proceeding, infrastructure activities for facilities and information technology capabilities, rulemakings associated with the geologic repository operations area, and related support activities such as acquisitions, recruitment, and staffing.

### CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION

In FY 2019, resources support continuation of licensing activities for the potential authorization to construct a repository, which includes starting the acquisition process for hearing facility space, as well as the information technology and audiovisual buildout process to support the adjudication; and activities to support prehearing conferences, such as transcripts, physical security, and procurement. Limited appellate and judicial litigation activities are expected. Resources also support necessary non-adjudicatory activities, particularly allegation and investigation activities, as well as the resumption of rulemakings associated with the geologic repository operations area. Resources also support subject matter experts to support these efforts.

## **HIGH-LEVEL WASTE**

---

### **MAJOR ACTIVITIES**

The major activities within the High-Level Waste Business Line include the following:

- Reinstatement and maintenance of the Licensing Support Network, an electronic database of documents related to the Yucca Mountain licensing proceeding, or a functionally equivalent system.
- Prepare for the resumption of the administrative adjudication.
- Prepare for and participate in ongoing federal litigation.
- Support allegation and investigation activities, as well as continue rulemakings associated with a geologic repository operations area.

## CORPORATE SUPPORT

The NRC's corporate support involves centrally managed activities that are necessary for agency programs to accomplish the agency's mission and achieve goals. These activities include acquisitions, administrative services, financial management, human resource management, information technology (IT) and information management (IM), outreach, policy support, and training.

### Corporate Support Budget Authority and Full-Time Equivalents (Dollars in Millions)

Product Line	FY 2017 Actuals		FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Acquisitions	15.6	55.7	14.5	64.0	16.0	56.0	1.5	(8.0)
Administrative Services	98.1	95.0	102.6	109.0	89.0	74.0	(13.6)	(35.0)
Financial Management	26.4	102.0	30.7	109.0	32.4	100.0	1.7	(9.0)
Human Resource Management	19.6	51.6	18.2	57.0	17.8	44.0	(0.4)	(13.0)
IT/IM Resources	116.9	189.6	101.5	202.0	107.4	173.0	5.9	(29.0)
Outreach	3.8	18.1	3.9	18.0	3.3	13.0	(0.6)	(5.0)
Policy Support	21.1	112.3	21.3	139.0	29.3	136.0	8.0	(3.0)
Training	5.2	17.1	5.3	19.0	4.3	13.0	(1.0)	(6.0)
<b>Total</b>	<b>\$306.7</b>	<b>641.3</b>	<b>\$298.1</b>	<b>717.0</b>	<b>\$299.6</b>	<b>609.0</b>	<b>\$1.5</b>	<b>(108.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The fiscal year (FY) 2019 resources requested for corporate support constitute 31 percent of the agency's total budget and reflect an overall increase of \$1.5 million, yet include a decrease of 108 full-time equivalents (FTE), when compared with the FY 2018 Annualized Continuing Resolution (CR). The FY 2019 budget request supports the NRC's commitment to improve effectiveness, efficiency, and accountability, including continuing efforts to modernize IT to increase productivity and security, improve the efficiency and effectiveness of administrative services, develop a workforce for the 21<sup>st</sup> century, focus on the highest-value work, and improve customer service.

Appendix E, "Federal Information Technology Acquisition Reform Act Requirements," contains a complete list of the NRC's major IT investments, including those budgeted in corporate support as well as those budgeted in the other business lines.

### CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION

Resources increase in FY 2019 primarily as a result of investments in IT and an increase in salaries and benefits in FY 2018. IT resource increases include support for IT asset management services, as required by Office of Management and Budget (OMB) Memorandum

## **CORPORATE SUPPORT**

---

M-16-12, “Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing,” dated June 2, 2016; the transition to Internet Protocol Version 6 as required by OMB to increase mobility and security while reducing network administration and security costs downstream; and the enterprisewide acquisition system. In addition, the corporate support budget also includes resources for planned renovations to support regional space reductions and to support fees transformation initiatives.

These increases are offset by rent and utility reductions due to a one-time 7-month rent abatement on the Two White Flint North building, which was part of the negotiation for renewal of the building lease; a reduction in rent as a result of a reappraisal of the One White Flint North building; and the release of one additional floor in the Three White Flint North building. The budget request also reflects reduced costs with the transition to a new contract vehicle through which the NRC obtains IT support for its end-user computing, data center and cloud services, and network operation and maintenance; and savings resulting from implementation of more cost-effective shared Federal services. In addition, the budget includes FTE reductions that were identified through a review of corporate offices’ full-time staff utilization and workload performed as part of the rebaselining of agency resources<sup>3</sup>, and the standardization and centralization of mission support functions. The FTE reductions are based on efficiencies and current and projected declines in agency workload.

### **MAJOR ACTIVITIES**

The major activities within the Corporate Support Business Line include the following:

- Contract operations and oversight necessary to ensure that the agency obtains goods and services in an effective and efficient manner consistent with mission needs, sound business practices, agency guidance, and Federal regulations. This includes the enterprisewide acquisition system and procurement and commodity management activities, including strategic sourcing activities.
- Rent and utilities for NRC Headquarters, regions, and the Technical Training Center, offsite and public meeting space requests, building operation and maintenance services, interior upkeep and building alterations, custodial services, labor services, office furniture, property asset inventory management, vehicle fleet management, transit subsidies, print and publication services, supplies, editorial services, graphic design services, postage and mail equipment, mail and courier services, multimedia services, security services, drug testing, security background investigations, security equipment, and insider threat analyses.
- Maintenance and operation of the agency’s financial systems, budget development and execution, agency financial services, accounting and reporting activities, development of the annual fee rule, and administration of the internal control program.
- Human resource management activities, work-life services, employee and labor relations, enhanced strategic workforce planning, and permanent change-of-station, including resident inspector moves.
- Management of the IT/IM portfolio including:
  - (1) maintaining cost-effective enterprise solutions and secure infrastructure technologies and services to enable the agency’s mission and corporate functions,
  - (2) promoting mobility to respond to mission needs,

---

<sup>3</sup> The review of corporate offices’ FTE utilization and workload was proposed in SECY-16-0035, “Additional Re-Baselining Products,” (Agencywide Documents and Access Management Systems Accession No. ML16077A184), Enclosure 1, “Longer-Term Efficiencies.”

(3) ensuring effective management and appropriate dissemination of physical and electronic information and records,  
(4) ensuring transparency and promote public involvement in the agency's regulatory activities,  
(5) providing public meeting support and support for the Public Document Room and Technical Library,  
(6) supporting essential information collections and implementation of the Freedom of Information Act and Privacy Act,  
(7) developing and implementing cybersecurity policies/standards to mitigate cybersecurity vulnerabilities, threats, and incidents,  
(8) preventing unauthorized disclosure of NRC information and protect classified and controlled unclassified information,  
(9) supporting Enterprise Architecture, capital planning, IT governance, and other functions of the Chief Information Officer, and  
(10) making targeted investments in transformational activities to yield future cost savings or avoidance, such as consolidating nontiered data centers, increasing data center facility utilization, and implementing a data center infrastructure management solution that provides temperature and power monitoring as mandated by Executive Order 13693, "Planning for Federal Sustainability in the Next Decade," dated March 19, 2015.

- Maintaining the civil rights complaints process; promoting affirmative employment, diversity, and inclusion; ensuring compliance with small business laws; conducting business development assistance and providing the maximum practicable prime and subcontract opportunities for small businesses; and continuing efforts to implement the NRC's Outreach and Compliance Coordination Program, in accordance with applicable Federal civil rights statutes and NRC regulations.
- Agencywide policy formulation and guidance, strategic planning, performance management, legal advice and appellate adjudicatory support to the Commission, independent evaluations of agency programs and implementation of Commission policy directives, advice and assistance to the Commission on Congressional and protocol issues and public affairs activities, management and oversight of agency programs, interactions on matters of international nuclear safety and security issues and developments, and operation of the Commissioners' offices.
- The agency's training infrastructure, including operation of the Professional Development Center, agency leadership programs such as the Senior Executive Service Career Development Program, organizational development, training systems, and corporate-related external training. Resources for technical-role competency modeling, mission-related qualification and non-qualification training, simulator training and maintenance, and mission-related external training are budgeted in the programmatic business lines that they directly support.

## **CORPORATE INDIRECT**

Indirect support for corporate activities is included within the budgets for individual corporate support product lines. Corporate indirect includes supervisory support, administrative and other nonsupervisory support staff, and travel.

## CORPORATE SUPPORT

Corporate Indirect and Travel by Product Line (Dollars in Millions)						
Product Line	FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE
Acquisitions	13.5	57.0	14.9	50.0	1.4	(7.0)
Corporate Indirect	1.1	7.0	1.1	6.0	0.0	(1.0)
Travel	0.0	0.0	0.0	0.0	0.0	0.0
<b>Acquisitions Total</b>	<b>14.5</b>	<b>64.0</b>	<b>16.0</b>	<b>56.0</b>	<b>1.5</b>	<b>(8.0)</b>
Administrative Services	98.1	82.0	85.6	57.0	(12.5)	(25.0)
Corporate Indirect	4.5	27.0	3.4	17.0	(1.1)	(10.0)
Travel	0.0	0.0	0.0	0.0	0.0	0.0
<b>Administrative Services Total</b>	<b>102.6</b>	<b>109.0</b>	<b>89.0</b>	<b>74.0</b>	<b>(13.6)</b>	<b>(35.0)</b>
Financial Management	27.2	88.0	28.5	80.0	1.3	(8.0)
Corporate Indirect	3.4	21.0	3.8	20.0	0.4	(1.0)
Travel	0.1	0.0	0.0	0.0	(0.1)	0.0
<b>Financial Management Total</b>	<b>30.7</b>	<b>109.0</b>	<b>32.4</b>	<b>100.0</b>	<b>1.7</b>	<b>(9.0)</b>
Human Resource Management	16.2	46.0	16.2	36.0	0.0	(10.0)
Corporate Indirect	1.8	11.0	1.6	8.0	(0.2)	(3.0)
Travel	0.1	0.0	0.1	0.0	0.0	0.0
<b>Human Resource Management Total</b>	<b>18.2</b>	<b>57.0</b>	<b>17.8</b>	<b>44.0</b>	<b>(0.4)</b>	<b>(13.0)</b>
IT/IM Resources	96.3	171.0	103.3	153.0	7.0	(18.0)
Corporate Indirect	5.2	31.0	3.9	20.0	(1.3)	(11.0)
Travel	0.1	0.0	0.1	0.0	0.0	0.0
<b>IT/IM Resources Total</b>	<b>101.5</b>	<b>202.0</b>	<b>107.4</b>	<b>173.0</b>	<b>5.9</b>	<b>(29.0)</b>
Outreach	3.2	14.0	2.5	9.0	(0.7)	(5.0)
Corporate Indirect	0.7	4.0	0.8	4.0	0.1	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0
<b>Outreach Total</b>	<b>3.9</b>	<b>18.0</b>	<b>3.3</b>	<b>13.0</b>	<b>(0.6)</b>	<b>(5.0)</b>
Policy Support	14.9	92.0	22.4	106.0	7.5	14.0
Corporate Indirect	5.5	47.0	5.8	30.0	0.3	(17.0)

**Corporate Indirect and Travel by Product Line**  
(Dollars in Millions)

Product Line	FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE
Travel	0.9	0.0	1.1	0.0	0.2	0.0
<b>Policy Support Total</b>	<b>21.3</b>	<b>139.0</b>	<b>29.3</b>	<b>136.0</b>	<b>8.0</b>	<b>(3.0)</b>
Training	3.9	12.0	3.1	8.0	(0.8)	(4.0)
Corporate Indirect	1.1	7.0	0.9	5.0	(0.2)	(2.0)
Travel	0.3	0.0	0.3	0.0	0.0	0.0
<b>Training Total</b>	<b>5.3</b>	<b>19.0</b>	<b>4.3</b>	<b>13.0</b>	<b>(1.0)</b>	<b>(6.0)</b>
<b>Total</b>	<b>\$298.1</b>	<b>717.0</b>	<b>\$299.6</b>	<b>609.0</b>	<b>\$1.5</b>	<b>(108.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2017

The significant accomplishments within the Corporate Support Business Line include the following:

- Awarded the NRC Global Infrastructure and Development Acquisition contract, an innovative approach to NRC's enterprisewide strategic IT planning and management program.
- Received an "A+" Small Business grade. This marked the fifth consecutive year that the NRC has been recognized by the Small Business Administration for meeting its goal, but the first "A+" for the agency.
- Began the development of, and preparation to implement, an enhanced approach to strategic workforce planning to better position the agency for the future.
- Deployed a centralized rulemaking tracking and reporting tool in March 2017. The Web-based system provides stakeholders with consistent, accurate, and up-to-date information on planned NRC rules and petitions for rulemaking.
- Completed 14 of 14 fees transformation improvement tasks for FY 2017. In addition, three tasks for FY 2018 were accelerated and completed.
- Implemented the requirements of the Cost Accountability and Management Project, resulting in improvements to the agency's time and labor reporting data structure, systems architecture, and internal control governance in support of license fee billing.
- Implemented all the requirements of the Digital Accountability and Transparency Act of 2014 (DATA Act). Received an award from the U.S. Department of the Treasury for effectively and efficiently planning and implementing the reporting requirements laid out by the DATA Act Information Model Schema and for demonstrating technical expertise and a commonsense approach in the agency's implementation.
- As part of the Data Center Optimization Initiative, migrated seven nontiered data centers into the tiered data center.

## CORPORATE SUPPORT

- Deployed the Master Data Management program on October 1, 2017. This highly integrated program provides an efficient and effective way to share key business data which will lead to better reporting and decisionmaking and more transparent licensee invoices.
- Improved the NRC's cybersecurity posture through enhanced monitoring capabilities, improved software patching, and a reduction in system vulnerabilities.

## OTHER INDICATORS

### ACQUISITION

Percentage of Eligible Service Contracting Dollars (Contracts Over \$25,000) That Use Performance-Based Contracting Techniques during the Fiscal Year (CS-01)			
Fiscal Year	Target	Actual	Comment
FY 2014	65	64	
FY 2015	65	68	
FY 2016	65	63.2	The annual metric for performance-based contracting ran 1.8 percent less than the annual target, which is within the margin of error.
FY 2017	65	61.78	Many contracts awarded by NRC were not suitable to be performance-based contracts.
FY 2018	Discontinued		Not all services must be awarded as performance-based contracts. Therefore, this indicator does not provide useful information on the effectiveness of the NRC's acquisition organization and it is being discontinued.
FY 2019	NA		

Percentage of Required Synopses for Acquisitions That Are Posted on the Governmentwide Point-of-Entry Web Site ( <a href="http://www.FedBizOpps.gov">www.FedBizOpps.gov</a> ) during the Fiscal Year (CS-02)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	100	
FY 2015	100	100	
FY 2016	100	100	
FY 2017	100	100	
FY 2018	Discontinued		The Federal Acquisition Regulation requires the posting of synopses on FedBizOpps for procurements over a certain dollar value. Posting required synopses has never been a challenge at the NRC, and the goal of 100 percent has been met every year. Because this indicator does not provide useful information on the effectiveness of the NRC's acquisition organization, it is being discontinued.
FY 2019	NA		

Percentage of Spend Under Management* (CS-03)			
Fiscal Year	Target	Actual	Comment
FY 2016			
FY 2017			
FY 2018			
FY 2019	38		New measure for FY 2019.

\*Spend under management is a key measure of an agency's use of smart buying practices, such as strong strategic leadership and oversight, and the collection and sharing of critical data, including terms and conditions, performance, and prices paid.

## ADMINISTRATIVE SERVICES

Percentage of Time Physical Security Responds to Incidents That Result in Harm to Occupants, Damage to NRC Property, or Loss of Protected Information within 15 Minutes of Notification (CS-04)			
Fiscal Year	Target	Actual	Comment
FY 2014	New indicator in FY 2016		
FY 2015			
FY 2016	90	100	
FY 2017	90	100	
FY 2018	90		
FY 2019	Discontinued		This indicator is tracked by alarm response logs that the security guards maintain to ensure that the requirement to respond to an alarm in specific agency rooms, such as secure or other limited access areas, within 15 minutes of an alarm is met. Given this level of operational detail, this will now be maintained as an internal agency indicator.

Percentage of NRC-Leased Space Compared to the Agency's FY 2012 Freeze the Footprint Baseline (1,170,242 Usable Square Feet) (CS-05)			
Fiscal Year	Target	Actual	Comment
FY 2014	N/A		
FY 2015	N/A		
FY 2016	N/A		
FY 2017	N/A		
FY 2018	N/A		
FY 2019	96		New indicator for FY 2019.

## FINANCIAL MANAGEMENT

Percentage of Collections Achieved When Compared with Projected Collections (CS-06)			
Fiscal Year	Target	Actual	Comment
FY 2014	100	93.6	Contributing factors to missing the target include a fee policy written to collect 98 percent of the 90-percent target and a final fee rule that did not become effective until the end of August, leaving no time to recover from licensee delays in the payment of fees.
FY 2015	100	99.6	
FY 2016	100	98.4	
FY 2017	100	98.14	
FY 2018	>98		The target was reduced to 98 percent to comply with the regulatory requirement to collect "approximately" 90 percent of the agency's appropriation.
FY 2019	>98		

Percentage of Annual Billings That Are Past Due Accounts Receivable (CS-07)			
Fiscal Year	Target	Actual	Comment
FY 2014	1	1	
FY 2015	1	1	
FY 2016	1	0.7	
FY 2017	1	1.63	The target was not met due to \$3,720,089 in invoices that were only two days overdue, and \$966,210 in invoices protected by the Westinghouse bankruptcy filing.
FY 2018	≤1		
FY 2019	≤1		

## CORPORATE SUPPORT

Percentage of Nonsalary Payments Made Electronically and Accurately within Established Schedule (CS-08)			
Fiscal Year	Target	Actual	Comment
FY 2014	98	98	
FY 2015	98	98	
FY 2016	98	98	
FY 2017	98	99.6	
FY 2018	98		
FY 2019	98		

## INFORMATION TECHNOLOGY/INFORMATION MANAGEMENT

Number of Targets Met Out of Four for Key Information Dissemination Channels (Freedom of Information Act, Public Meetings Notices, and Public Document Release Timeframe)* (CS-09)			
Fiscal Year	Target	Actual	Comment
FY 2014	3	4	
FY 2015	3	3	
FY 2016	3	4	
FY 2017	4	5	
FY 2018	4		
FY 2019	Discontinued		Discontinued in FY 2019 as most of the targets associated with this indicator are either tracked at the agency level or subject to other external reporting, or both. As such, this indicator will continue to be tracked internally to assure that the multiple dissemination targets are being met.

\*Targets: (1) Percentage of time the NRC responds to Freedom of Information Act requests within 20 working days (75 percent), (2) percentage of Category 1, 2, and 3 meetings on regulatory issues for which the NRC posted a meeting notice on the public meeting notice Web site at least 10 days in advance of the meeting (90 percent), (3) percentage of nonsensitive, unclassified regulatory documents generated by the NRC and sent to the agency's Document Processing Center that are released to the public by the sixth working day after the date of the document (90 percent), and (4) percentage of nonsensitive, unclassified regulatory documents received by the NRC that are released to the public by the sixth working day after the document is added to the Agencywide Documents Access and Management System main library (90 percent).

The NRC's Score on the Annual American Customer Satisfaction Index for Federal Web Sites (CS-10)			
Fiscal Year	Target	Actual	Comment
FY 2014	73	76	
FY 2015	73	79	
FY 2016	73	81	
FY 2017	73	78	
FY 2018	73		
FY 2019	73		

Percentage of Agency Investments That Are Green per OMB's IT Dashboard (CS-11)			
Fiscal Year	Target	Actual	Comment
FY 2014	7.5	Target met	The OMB Exhibit 300 score indicator "IT Investment Management—Average Score on a Scale of 1–10 for All NRC IT Investments on the OMB IT Dashboard," was replaced with "Percentage of Agency Investments That Are Green per OMB's IT Dashboard," beginning in FY 2015.
FY 2015	80	Target met	
FY 2016	80	90	
FY 2017	80	84	
FY 2018	80		
FY 2019	Discontinued		Replaced for FY 2019 by indicator CS-13, which provides more quantitative information.

Satisfactory Rating Achieved for the NRC's Cybersecurity Program Effectiveness Based upon the Annual Inspector General Federal Information Security Management Act (FISMA) Audit (CS-12)			
Fiscal Year	Target	Actual	Comment
FY 2014	Yes	Yes	OIG did not report any material weaknesses in its evaluation report (OIG-15-A-02).
FY 2015	Yes	Yes	OIG did not report any material weaknesses in its evaluation report (OIG-16-A-01)
FY 2016	Yes	Yes	OIG did not report any material weaknesses in its evaluation report (OIG-17-A-01)
FY 2017	Yes	Yes	
FY 2018	Discontinued		This indicator does not measure the impact or effectiveness of the cybersecurity program. The Cybersecurity Performance Index will be substituted, which will demonstrate the change in cybersecurity posture year over year, with results reported at the agency's Quarterly Performance Reviews.
FY 2019	NA		

Percentage of Projects within Schedule and within Budget Based on Information Collected for Major IT Investments Reported to the OMB IT Dashboard (CS-13)			
Fiscal Year	Target	Actual	Comment
FY 2019	>= 80% projects on schedule and on budget		This is a new indicator for FY 2019 and replaces CS-11.

## CORPORATE SUPPORT

### HUMAN RESOURCE MANAGEMENT

The NRC's Annual Average Rank among Top Agencies across the U.S. Office of Personnel Management (OPM) Human Capital Indices on the Federal Employee Viewpoint Survey (FEVS) (CS-14)			
Fiscal Year	Target	Actual	Comment
FY 2015	≤5	4	
FY 2016	≤5	7	Based on the 2016 FEVS results from OPM, the NRC was ranked seventh overall. To ensure an engaged workforce, the NRC is implementing an agencywide action plan aimed at cultivating an NRC culture that fosters a greater climate of trust, as well as office-specific plans. Action leads have been encouraged to revise plans, as needed, in accordance with current FEVS results.
FY 2017	≤5	9	Discontinued and replaced with indicator CS-15.
FY 2018	N/A		
FY 2019	N/A		

The NRC's Averaged Index Scores for Employee Engagement, Global Satisfaction, and New IQ (Diversity and Inclusion) Remain at Least 7.5% Above the Federal Employee Viewpoint Survey (FEVS) Governmentwide Average Score (CS-15)			
Fiscal Year	Target	Actual	Comment
FY 2015	N/A		
FY 2016	N/A		
FY 2017	N/A		
FY 2018	≥7.5		New indicator for FY 2018.
FY 2019	≥7.5		

Percentage of Key Human Capital Indicators Met* (CS-16)			
Fiscal Year	Target	Actual	Comment
FY 2015	≥75	75	
FY 2016	≥75	75	
FY 2017	≥75	75	
FY 2018	≥75		
FY 2019	≥75		

\* The specific subindicators that will be included under this indicator will be evaluated and updated on an annual basis to meet agency needs. Examples may include retention of professional hires within 3 years, FEVS participation, percentage of veterans and employees with targeted disabilities hired, percentage of attrition, iLearn Training Support user satisfaction, and percentage of participants completing development programs.

**INTEGRATED UNIVERSITY PROGRAM**

<b>Integrated University Program</b> (Dollars in Millions)								
<b>Business Line</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Integrated University Program	\$15.0	0.0	\$14.9	0.0	\$0.0	0.0	\$(14.9)	0.0
<b>Total</b>	<b>\$15.0</b>	<b>0.0</b>	<b>\$14.9</b>	<b>0.0</b>	<b>\$0.0</b>	<b>0.0</b>	<b>\$(14.9)</b>	<b>0.0</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

The Integrated University Program provides grants to academic institutions to support education in nuclear science and engineering and related fields. The NRC has provided funding for university research and development as well as for scholarships, fellowships, and faculty development. In addition, the agency strives to include minority-serving institutions as part of the program through the competitive grant selection process.

**CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION**

Integrated University Program resources were not requested in the FY 2018 President’s Budget.

**SIGNIFICANT ACCOMPLISHMENTS IN FY 2017**

The NRC awarded 46 grants totaling \$15 million in grants to 35 academic institutions for scholarships, fellowships, and faculty development in 22 states and Puerto Rico, including minority serving institutions.



## **ANNUAL PERFORMANCE PLAN**

The NRC will publish its [strategic plan](#) for fiscal years (FYs) 2018–2022 in February 2018. The plan will list the agency’s strategic goals and their associated objectives. This chapter of the NRC’s Performance Budget provides the performance goals and performance indicators and criteria associated with the upcoming strategic plan.

The Government Performance and Results Act (GPRA) Modernization Act of 2010 requires a more integrated framework for planning and performance management that demonstrates a governance structure showing better connection of plans, programs, and performance information in the Congressional Budget Justification. More specifically, the law requires an agency to describe how the performance goals contained in its performance plan contribute to the goals and objectives established in the agency’s strategic plan. These goals and objectives are reflected in the performance indicators in this section.<sup>4</sup>

The NRC’s mission is to license and regulate 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. Therefore, the trends for progress on the agency’s strategic goals and objectives are to be at either zero or very low levels. The agency works to prevent or minimize the outcomes tracked by the safety and security performance indicators.

### **FY 2019 Strategic Goals**

**Goal 1:** *Safety: Ensure the safe use of radioactive materials.*

*Safety Objective 1: Prevent, mitigate, and respond to accidents and ensure radiation safety.*

**Goal 2:** *Security: Ensure the secure use of radioactive materials.*

*Security Objective 1: Ensure protection of nuclear facilities and radioactive materials.*

*Security Objective 2: Ensure protection of classified and Controlled Unclassified Information.*

---

<sup>4</sup> On July 20, 2011, the Office of Management and Budget exempted the NRC from the GPRA Modernization Act of 2010 requirement for establishing agency or cross-agency priority goals because of the NRC’s statutory mission to be an independent regulator of the civilian use of radioactive materials. Thus, no such goals are included in this narrative.

## ANNUAL PERFORMANCE PLAN

### RELATING RESOURCES TO GOALS

The following table shows the alignment of the NRC's fully costed Nuclear Reactor Safety Program and Nuclear Materials and Waste Safety Program with the safety and security goals. The full cost includes an allocation of the agency's infrastructure and support costs to specific programs.

<b>Alignment of Resources to NRC Goals</b> (Dollars in Millions) (Excludes Office of the Inspector General)						
<b>Major Programs</b>	<b>FY 2018 Annualized CR</b>			<b>FY 2019 Request</b>		
	<b>Safety</b>	<b>Security</b>	<b>Total</b>	<b>Safety</b>	<b>Security</b>	<b>Total</b>
Nuclear Reactor Safety	662.2	47.5	709.8	680.4	29.7	710.1
Nuclear Materials and Waste Safety	183.2	6.0	189.2	225.8	22.2	248.0
<b>Total</b>	<b>\$845.5</b>	<b>\$53.5</b>	<b>\$898.9</b>	<b>\$906.2</b>	<b>\$51.9</b>	<b>\$958.1</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

### PERFORMANCE INDICATORS: FY 2018–FY 2022

The following performance indicators were developed in conjunction with the development of the agency's FY 2018–2022 Strategic Plan.

**Safety Objective 1:** *Prevent, mitigate, and respond to accidents and ensure radiation safety.*

**Performance Goal 1:** Prevent radiation exposures that significantly exceed regulatory limits.

**Performance Indicator:** Number of radiation exposures that meet or exceed Abnormal Occurrences (AO) Criteria I.A.1 (unintended radiation exposure to an adult), I.A.2 (unintended radiation exposure to a minor), or I.A.3 (radiation exposure that has resulted in unintended permanent functional damage to an organ or physiological system)<sup>5</sup>

**Timeframe:** Annual

<b>Business Line</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
Operating Reactors	Target	0	0	0	0	0
Operating Reactors	Actual	0	0	0		
New Reactors	Target	0	0	0	0	0
New Reactors	Actual	0	0	0		
Fuel Facilities	Target	0	0	0	0	0
Fuel Facilities	Actual	0	0	0		
Decommissioning and Low-Level Waste	Target	0	0	0	0	0

<sup>5</sup> All references to the AO criteria in this section refer to the criteria approved by the Commission in the Staff Requirements Memorandum to SECY-17-0019, "Final Revision to Policy Statement on Abnormal Occurrence Reporting Criteria."

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Decommissioning and Low-Level Waste	Actual	0	0	0		
Spent Fuel Storage and Transportation	Target	0	0	0	0	0
Spent Fuel Storage and Transportation	Actual	0	0	0		
Nuclear Materials Users	Target	< 3	< 3	< 3	< 3	< 3
Nuclear Materials Users	Actual	1*	2	0**		

\* Reported in the FY 2017 Congressional Budget Justification as 2 due to one event previously labeled as an AO reclassified as not meeting the AO threshold upon further investigation.

\*\* Two events are pending inspections and evaluation of results.

**Performance Goal 2:** Prevent releases of radioactive materials that significantly exceed regulatory limits.

**Performance Indicator:** Number of releases of radioactive materials that meet or exceed AO Criterion I.B (discharge or dispersal of radioactive material from its intended place of confinement)

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Operating Reactors	Target	0	0	0	0	0
Operating Reactors	Actual	0	0	0		
New Reactors	Target	0	0	0	0	0
New Reactors	Actual	0	0	0		
Fuel Facilities	Target	0	0	0	0	0
Fuel Facilities	Actual	0	0	0		
Decommissioning and Low-Level Waste	Target	0	0	0	0	0
Decommissioning and Low-Level Waste	Actual	0	0	0		
Spent Fuel Storage and Transportation	Target	0	0	0	0	0
Spent Fuel Storage and Transportation	Actual	0	0	0		
Nuclear Materials Users	Target	0	0	0	0	0
Nuclear Materials Users	Actual	0	0	0		

**Performance Goal 3:** Prevent the occurrence of any inadvertent criticality events.

**Performance Indicator:** Number of instances of unintended nuclear chain reactions involving NRC-licensed radioactive materials

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Operating Reactors	Target	0	0	0	0	0
Operating Reactors	Actual	0	0	0		
Fuel Facilities	Target	0	0	0	0	0
Fuel Facilities	Actual	0	0	0		
Decommissioning and Low-Level Waste	Target	0	0	0	0	0
Decommissioning and Low-Level Waste	Actual	0	0	0		

**Performance Goal 4:** Prevent accident precursors and reductions of safety margins at commercial nuclear power plants (operating or under construction) that are of high safety significance.

## ANNUAL PERFORMANCE PLAN

**Performance Indicator:** Number of malfunctions, deficiencies, events, or conditions at commercial nuclear power plants (operating or under construction) that meet or exceed AO Criteria II.A–II.E (commercial nuclear power plant licensees)

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Operating Reactors	Target	0	0	0	0	0
Operating Reactors	Actual	0	0	0		
New Reactors	Target	0	0	0	0	0
New Reactors	Actual	0	0	0		

**Performance Goal 5:** Prevent accident precursors and reductions of safety margins at nonreactor facilities or during transportation of nuclear materials that are of high safety significance.

**Performance Indicator:** Number of malfunctions, deficiencies, events, or conditions at nonreactor facilities or during transportation of nuclear materials that meet or exceed AO Criteria III.A or III.B (events at facilities other than nuclear power plants and all transportation events)

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Fuel Facilities	Target	0	0	0	0	0
Fuel Facilities	Actual	0	1*	0		
Decommissioning and Low-Level Waste	Target	0	0	0	0	0
Decommissioning and Low-Level Waste	Actual	0	0	0		
Spent Fuel Storage and Transportation	Target	0	0	0	0	0
Spent Fuel Storage and Transportation	Actual	0	0	0		

\* Reported in the FY 2018 Congressional Budget Justification. As referenced in NUREG-0090 Volume 39, Report to Congress on Abnormal Occurrences FY 2016 (ADAMS Accession No. ML17103A289), there was an event at the Westinghouse Columbia Fuel Fabrication Facility, Columbia, SC (NRC16-03).

**Security Objective 1:** *Ensure protection of nuclear facilities and radioactive materials*

**Performance Goal 1:** Prevent sabotage, theft, diversion, or loss of risk-significant quantities of radioactive material.

**Performance Indicator:** Number of instances of sabotage, theft, diversion, or loss of risk-significant quantities of radioactive material that meet or exceed AO Criteria I.C.1 (stolen, abandoned, or unrecovered lost), I.C.2 (radiological sabotage), and Criterion I.C.3 (substantiated case of actual theft, diversion, or loss of a formula quantity of special nuclear material (SNM) or inventory discrepancy)

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
All Business Lines	Target	0	0	0	0	0,
All Business Lines	Actual	0	0	0		

**Performance Goal 2:** Prevent substantial breakdowns of physical security, cyber security, or material control and accountability.

**Performance Indicator:** Number of substantial breakdowns of physical security, cyber security, or material control and accountability that meet or exceed AO Criterion I.C.4 (substantial breakdown of physical security, cyber security, or material control and accountability) and AO Criterion I.C.3 (substantiated case of actual theft, diversion, or loss of a formula quantity of SNM or an inventory discrepancy)

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
All Business Lines	Target	≤1	≤1	≤1	≤1	≤1
All Business Lines	Actual	0	0	0		

**Security Objective 2:** *Ensure protection of classified and Controlled Unclassified Information*

**Performance Goal 3:** Prevent significant unauthorized disclosures of classified or Safeguards Information.

**Performance Indicator:** Number of significant unauthorized disclosures of classified or Safeguards Information by licensees as defined by AO Criterion I.C.5 (significant unauthorized disclosures of classified information or Safeguards Information) and by NRC employees or contractors, as defined by NRC internal criteria

**Timeframe:** Annual

Business Line		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
All Business Lines	Target	0	0	0	0	0
All Business Lines	Actual	0	0	0		

**VERIFICATION AND VALIDATION OF PERFORMANCE INDICATORS**

**Goal 1: Safety:** *Ensure the safe use of radioactive materials.*

**Nuclear Reactor Safety**

**Safety Objective 1:** *Prevent, mitigate, and respond to accidents and ensure radiation safety.*

**Performance Indicators:**

<b>FY 2015-2019:</b>	Performance Goal 1: Number of radiation exposures that meet or exceed AO Criteria I.A.1 (unintended radiation exposure to an adult), I.A.2 (unintended radiation exposure to a minor), or I.A.3 (radiation exposure that has resulted in unintended permanent functional damage to an organ or physiological system)
<b>Reactor Safety Target:</b>	Zero
<b>Verification:</b>	Licensees report overexposures through the Licensee Event Report (LER) process, which are then entered into a searchable

## ANNUAL PERFORMANCE PLAN

	<p>database. The database is used to identify those LERs that report overexposures. NRC resident inspectors stationed at each nuclear power plant provide a high degree of assurance that all events meeting reporting criteria are reported to the NRC. In addition, the NRC conducts inspections if there is any indication that an exposure exceeded, or could have exceeded, a regulatory limit. Finally, areas of the facility that may be subject to radiation contamination have monitors that record radiation levels. These monitors would immediately reveal any instances in which high levels of radiation exposure occurred.</p>
<b>Validation:</b>	<p>Given the nature of the process of using radioactive materials to generate power, overexposure to radiation is a potential danger from the operation of nuclear power plants. Such exposure to radiation in excess of the applicable regulatory limits may potentially occur through either a nuclear accident or other malfunctions at the plant. Consequently, tracking the number of overexposures that occur at nuclear reactors is an important indicator of the degree to which safety is being maintained.</p>

<b>FY 2015-2019:</b>	<p>Performance Goal 2: Number of releases of radioactive materials that meet or exceed AO Criterion I.B (discharge or dispersal of radioactive material from its intended place of confinement)</p>
<b>Reactor Safety Target:</b>	<p>Zero</p>
<b>Verification:</b>	<p>Licensees report environmental releases of radioactive materials that are in excess of regulations or license conditions through the LER process, which are entered into a searchable database. The database is used to identify those LERs reporting releases, and the number of reported releases is then applied to this indicator. The NRC also conducts periodic inspections of licensees to ensure that they properly monitor and control releases to the environment through effluent pathways. In addition, onsite monitors would record any instances in which a plant releases radiation into the environment. If the inspections or the monitors reveal any indication that an accident or inadvertent release has occurred, the NRC conducts follow-up inspections.</p>
<b>Validation:</b>	<p>The generation of nuclear power creates radioactive materials that are released into the environment in a controlled manner. These radioactive discharges are subject to regulatory controls that limit the amount discharged and the resultant dose to members of the public. Consequently, the NRC tracks all releases of radioactive materials in excess of regulatory limits as a performance indicator because large releases in excess of regulatory limits have the potential to endanger public safety or harm the environment. The NRC inspects every nuclear power plant for compliance with regulatory requirements and specific license conditions related to radiological effluent releases. The inspection program includes enforcement actions for violations of the regulations or license conditions, based on the severity of the</p>

	event. This performance indicator includes the public dose limits in 10 CFR Part 20, “Standards for Protection against Radiation.”
--	--

<b>FY 2015-2019:</b>	Performance Goal 3: Number of instances of unintended nuclear chain reactions involving NRC-licensed radioactive materials
<b>Reactor Safety Target:</b>	Zero
<b>Verification:</b>	<p>An accidental criticality is defined in 10 CFR 70.52(a). Each NRC office reviews event documents for its specific program area to identify events as potential AOs.</p> <p>The program office or regional AO coordinators will assess an event to determine if it meets the AO criteria. If an event meets the AO criteria, the program office or regional AO coordinator will develop a potential AO event description. The potential AO event description will include the applicable AO criteria and contain the information specified in Section 208 of the Energy Reorganization Act of 1974, such as the nature and probable consequences of the event. The AO coordinator in the NRC’s Office of Nuclear Regulatory Research coordinates with the program office and regional AO coordinators regarding incidents and events, identified as potential AOs that are receiving interest from the Executive Director for Operations (EDO).</p>
<b>Validation:</b>	<p>The agency is required to submit a “Report to Congress on Abnormal Occurrences” each FY for those events that, by Commission determination, meet the AO criteria. These AO criteria have been developed and revised over several decades, with extensive review by both the Commission and the public. In SECY-95-083, “Revised Abnormal Occurrence Criteria,” the staff described the basis of the AO criteria as follows:</p> <p><i>The AO reporting policy has been developed to comply with the legislative intent of Section 208 of the Energy Reorganization Act of 1974, as amended, to keep Congress and the public informed of unscheduled incidents or events which the Commission considers significant from the standpoint of public health and safety....The thresholds are generally above the normal level of reporting events by licensees to NRC to exclude those events which involve some variance from regulatory limits, but are not significant enough from the standpoint of public health and safety to be reported to Congress.</i></p> <p>For each event that meets the AO criteria, the NRC includes in the report a description of the incident or event, as well as any action taken to prevent recurrence. Such actions include those taken by licensees, as well as more programmatic actions deemed necessary by the Commission to prevent recurrence across a class(es) of licensees. Establishing performance indicators at the threshold levels described by the AO criteria is appropriate and consistent with the principle that the NRC’s regulatory processes (e.g., licensing, oversight, enforcement) are</p>

## ANNUAL PERFORMANCE PLAN

	adequate to address a wide scope of infractions against regulatory requirements and do not generally warrant a focused reevaluation of the programs associated with those processes for every infraction. Therefore, only significant deviations from the regulatory requirements or unacceptable frequencies of occurrence of such deviations should be indicators of the need to reevaluate regulatory strategies and programs. This principle has been central to the staff's selection of performance goals and performance indicator thresholds for determining whether the NRC's performance in reasonably ensuring the safe and secure use of radioactive material has been adequate.
--	--

<b>FY 2015-2019:</b>	Performance Goal 4: Number of malfunctions, deficiencies, events, or conditions at commercial nuclear power plants (operating or under construction) that meet or exceed AO Criteria II.A–II.E (commercial nuclear power plant licensees)
<b>Reactor Safety Target:</b>	Less than or equal to three
<b>Verification:</b>	<p>The data for this performance indicator are collected in two ways as part of the NRC's reactor oversight process (ROP). NRC inspectors report inspection findings at a minimum on a quarterly basis. Inspectors use formal detailed inspection procedures to review plant operations and maintenance. NRC managers review inspection findings to assess their significance as part of the ROP's significance determination process. Licensees collect the data for performance indicators and submit them to the NRC quarterly. The significance of the data is determined by thresholds for each indicator. The NRC conducts inspections of licensee processes for collecting and submitting the data to ensure completeness, accuracy, consistency, timeliness, and validity.</p> <p>The NRC enhances the quality of its inspections through inspector feedback and periodic reviews of inspections results. The NRC inspectors are trained through a rigorous qualification program. The quality of performance indicators is improved through continuous feedback from licensees and inspectors that is incorporated into guidance documents. The NRC publishes the inspection findings and performance indicators on the agency's Web site (<a href="http://nrr10.nrc.gov/ope-info-gateway/insp-findings-index.html">http://nrr10.nrc.gov/ope-info-gateway/insp-findings-index.html</a>) and incorporates feedback received from all stakeholders, as appropriate.</p>
<b>Validation:</b>	The inspection findings and performance indicators that the ROP uses cover a broad range of plant operations and maintenance. NRC managers review significant issues that are identified, and inspectors conduct supplemental inspections of selected aspects of plant operations, as appropriate. Plants that are identified as having performance issues, as well as a self-assessment of the ROP, are reviewed by senior agency managers on an annual basis, and the results are reported to the Commission.

**Nuclear Materials and Waste Safety**

**Safety Objective 1:**      *Prevent, mitigate, and respond to accidents and ensure radiation safety.*

**Performance Indicators:**

<b>FY 2015-2019:</b>	Performance Goal 1: Number of radiation exposures that meet or exceed AO Criteria I.A.1 (unintended radiation exposure to an adult), I.A.2 (unintended radiation exposure to a minor), or I.A.3 (radiation exposure that has resulted in unintended permanent functional damage to an organ or physiological system)
<b>Materials Safety Target:</b>	Less than or equal to three
<b>Waste Safety Target:</b>	Zero
<b>Verification:</b>	<p>This performance indicator includes any event involving licensed radioactive materials that results in significant radiation exposures to members of the public or occupational workers that exceed the dose limits in the AO reporting criteria. Because of the extremely high doses used during medical applications of radioactive materials, it is also appropriate to use a radiation exposure that results in unintended permanent functional damage to an organ or a physiological system to a radiation therapy patient, as determined by a physician, as a criterion for this indicator. AO Criterion I.A.3 is used as the basis for this indicator.</p> <p>Should an event meeting this threshold occur, it would be reported to the NRC or Agreement States, or both, through a number of sources but primarily through required licensee notifications. These events are summarized in event notifications and preliminary notifications, which are used to widely disseminate the information to internal and external stakeholders.</p> <p>The processes used in the Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, and Decommissioning and Low-Level Waste (LLW) business lines contain elements to verify the completeness and accuracy of licensee reports. The Integrated Materials Performance Evaluation Program (IMPEP) also provides a mechanism to verify that Agreement States and NRC regions are consistently collecting and reporting such events as received from the licensees and entering them into the Nuclear Material Events Database (NMED).</p> <p>The NRC has taken a number of steps to improve the timeliness and completeness of materials event data. These steps include assessment of the NMED data during monthly staff reviews; emphasis and analysis during the IMPEP reviews; NMED</p>

**ANNUAL PERFORMANCE PLAN**

	training in headquarters (HQ), the regions, and Agreement States; and discussions at all Agreement State and Conference of Radiation Control Program Directors (CRCPD) meetings.
<b>Validation:</b>	<p>The NRC provides regulatory controls that limit or prevent radiation exposures to the public and occupational workers from radioactive material that exceed AO Criterion I.A. An incident or event is considered an AO if it involves a major reduction in the degree of protecting of public health or safety.</p> <p>Events of this magnitude are rare. In the unlikely event that an AO should occur, the NRC or Agreement State technical specialists will confirm whether the criteria were met, with input provided by expert consultants, as necessary.</p> <p>The NRC does not use statistical sampling of data to determine results. Rather, all event data are reviewed to determine whether the performance indicator has been met. There are two important data limitations in determining this performance indicator. These include delay time for receiving information and failure to inform the NRC of an event that causes significant radiation exposures to the public or occupational workers. The NRC regulations associated with event reporting include specific requirements for timely notifications; there is a lag time separating the occurrence of an event and its known consequences.</p> <p>The NRC believes the probability of not being aware of an event that causes significant radiation exposures to the public or occupational workers is very small. Periodic licensee inspections and regulatory reporting requirements are sufficient to ensure that an event of this magnitude would become known. If such an event occurred, it would result in a prompt and thorough investigation of the event, its consequences, its root causes, and the necessary actions by the licensee and the NRC to mitigate the situation and prevent recurrence. In addition to these immediate actions, the NRC holds periodic meetings, in which staff and management validate the occurrence of these events.</p>

<b>FY 2015-2019:</b>	Performance Goal 2: Number of releases of radioactive materials that meet or exceed AO Criterion I.B (discharge or dispersal of radioactive material from its intended place of confinement)
<b>Materials and Waste Safety Target:</b>	Zero
<b>Verification:</b>	This performance indicator is defined as any release to the environment from the following business line activities: Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, and Decommissioning and LLW that exceed applicable regulations, as defined in 10 CFR 20.2203(a)(3). Per Federal requirements, a 30-day written report is required on such releases.

	<p>Should an event meeting this threshold occur, it would be reported to the NRC or Agreement States, or both, through a number of sources but primarily through required licensee notifications. These events are summarized in event notifications and preliminary notifications, which are used to widely disseminate the information to internal and external stakeholders.</p> <p>The fuel facilities, nuclear materials users, spent fuel storage and transportation, and decommissioning and LLW programs contain elements that verify the completeness and accuracy of licensee reports. The IMPEP also provides a mechanism to verify that Agreement States and NRC regions are consistently collecting and reporting such events, as received from the licensees, and entering them into NMED.</p> <p>The NRC has taken a number of steps to improve the timeliness and completeness of materials event data. These steps include assessment of the NMED data during monthly staff reviews; emphasis and analysis during the IMPEP review; NMED training in HQ, the regions, and Agreement States; and discussions at Agreement State and CRCPD meetings.</p>
<p><b>Validation:</b></p>	<p>The NRC provides regulatory controls to limit radiation releases to ensure protection of the environment. The regulations in 10 CFR Part 20 provide standards for protection against radiation. Releases subject to a 30-day reporting requirement in 10 CFR 20.2203(a)(3)(ii) serve as a performance indicator for ensuring the protection of the environment. The NRC's regulatory process, including licensing, inspection, guidance, regulations, and enforcement activities, is sufficient to ensure that releases of radioactive materials that exceed regulatory limits are infrequent.</p> <p>In the unlikely event that a release to the environment exceeds regulatory limits, the NRC, Agreement State technical specialists, or agency consultants will confirm whether the criteria were met, with input provided by expert consultants, as necessary.</p> <p>The NRC does not look at statistical sampling of data to determine results; instead, all event data are reviewed to determine whether the performance indicator has been met. There are two important data limitations in determining this performance indicator. These include delay time for receiving information or the failure to inform the NRC of an event that causes environmental impacts. The NRC regulations associated with event reporting include specific requirements for timely notifications. There is a lag time separating the occurrence of an event and its known consequences.</p>

**ANNUAL PERFORMANCE PLAN**

	<p>The NRC believes the probability of not being aware of an event that causes a radiological release to the environment that exceeds applicable regulations is very small. Periodic licensee inspections and regulatory reporting requirements are sufficient to ensure that an event of this magnitude would become known.</p> <p>If such an event occurred, it would result in a prompt and thorough investigation of the event, its consequences, its root causes, and the necessary actions by the licensee and the NRC to mitigate the situation and prevent recurrence. In addition to these immediate actions, the NRC holds periodic meetings, in which staff and management validate the occurrence of these events.</p>
--	--

<b>FY 2015-2019:</b>	Performance Goal 3: Number of instances of unintended nuclear chain reactions involving NRC-licensed radioactive materials
<b>Materials and Waste Safety Target:</b>	Zero
<b>Verification:</b>	<p>An accidental criticality is defined in 10 CFR 70.52(a). Each NRC office reviews event documents for its specific program area to identify events that meet or exceed AO Criteria III.A.1 (accidental criticality).</p> <p>The program office or regional AO coordinators will assess an event to determine if it meets the AO criteria. If an event meets the AO criteria, the program office or regional AO coordinator will develop a potential AO event description. The potential AO event description will include the applicable AO criteria and contain the information specified in Section 208 of the Energy Reorganization Act of 1974, such as the nature and probable consequences of the event.</p> <p>The AO coordinator in the NRC’s Office of Nuclear Regulatory Research coordinates with the program office and regional AO coordinators regarding incidents and events, identified as potential AOs.</p>
<b>Validation:</b>	<p>The agency is required to submit a “Report to Congress on Abnormal Occurrences” each FY for those events that, by Commission determination, meet the AO criteria. These AO criteria have been developed and revised over several decades with extensive review by both the Commission and the public. In SECY-95-083, “Revised Abnormal Occurrence Criteria,” the staff described the basis of the AO criteria as follows:</p> <p><i>The AO reporting policy has been developed to comply with the legislative intent of Section 208 of the Energy Reorganization Act of 1974, as amended, to keep Congress and the public informed of unscheduled incidents or events which the Commission considers significant from the standpoint of public health and safety....The thresholds are generally above the normal level of</i></p>

	<p><i>reporting events by licensees to NRC to exclude those events which involve some variance from regulatory limits, but are not significant enough from the standpoint of public health and safety to be reported to Congress.</i></p> <p>For each event that meets the AO criteria, the NRC includes in the report a description of the incident or event, as well as any action taken to prevent recurrence. Such actions include those taken by licensees, as well as more programmatic actions deemed necessary by the Commission to prevent recurrence across a class or classes of licensees. Establishing performance indicators at the threshold levels described by the AO criteria is appropriate and consistent with the principle that the NRC's regulatory processes (e.g., licensing, oversight, enforcement) are adequate to address a wide scope of infractions against regulatory requirements and do not generally warrant a focused reevaluation of the programs associated with those processes for every infraction. Therefore, only significant deviations from the regulatory requirements or unacceptable frequencies of occurrence of such deviations should be indicators of the need to reevaluate regulatory strategies and programs. This principle has been central to the staff's selection of performance goals and performance indicator thresholds for determining whether the NRC's performance in ensuring the safe and secure use of radioactive material has been adequate.</p>
--	--

<p><b>FY 2015-2019:</b></p>	<p>Performance Goal 5: Number of malfunctions, deficiencies, events, or conditions at nonreactor facilities or during transportation of nuclear materials that meet or exceed AO Criteria III.A or III.B (events at facilities other than nuclear power plants and all transportation events)</p>
<p><b>Materials and Waste Safety Target:</b></p>	<p>Zero</p>
<p><b>Verification:</b></p>	<p>Each NRC office reviews event documents for its specific program area to identify events as potential AOs.</p> <p>The program office or regional AO coordinators will assess an event to determine if it meets the AO criteria. If an event meets the AO criteria, the program office or regional AO coordinator will develop a potential AO event description. The potential AO event description will include the applicable AO criteria and contain the information specified in Section 208 of the Energy Reorganization Act of 1974, such as the nature and probable consequences of the event.</p> <p>The AO coordinator of the NRC's Office of Nuclear Regulatory Research coordinates with the program office and regional AO coordinators regarding incidents and events, identified as potential AOs.</p>

## ANNUAL PERFORMANCE PLAN

---

<b>Validation:</b>	<p>The agency is required to submit a “Report to Congress on Abnormal Occurrences” each FY for those events that the Commission has determined to meet the AO criteria. These AO criteria have been developed and revised over several decades with extensive review by both the Commission and the public. In SECY-95-083, “Revised Abnormal Occurrence Criteria,” the staff described the basis of the AO criteria as follows:</p> <p><i>The AO reporting policy has been developed to comply with the legislative intent of Section 208 of the Energy Reorganization Act of 1974, as amended, to keep Congress and the public informed of unscheduled incidents or events which the Commission considers significant from the standpoint of public health and safety....The thresholds are generally above the normal level of reporting events by licensees to NRC to exclude those events which involve some variance from regulatory limits, but are not significant enough from the standpoint of public health and safety to be reported to Congress.</i></p> <p>For each event that meets the AO criteria, the NRC includes in the report a description of the incident or event, as well as any action taken to prevent recurrence. Such actions include those taken by licensees, as well as more programmatic actions deemed necessary by the Commission to prevent recurrence across a class or classes of licensees. Establishing performance indicators at the threshold levels described by the AO criteria is appropriate and consistent with the principle that the NRC’s regulatory processes (e.g., licensing, oversight, enforcement) are adequate to address a wide scope of infractions against regulatory requirements and do not generally warrant a focused reevaluation of the programs associated with those processes for every infraction. Therefore, only significant deviations from the regulatory requirements or unacceptable frequencies of occurrence of such deviations should be indicators of the need to reevaluate regulatory strategies and programs. This principle has been central to the staff’s selection of performance goals and performance indicator thresholds for determining whether the NRC’s performance in ensuring the safe and secure use of radioactive material has been adequate.</p>
--------------------	--

**Goal 2:** Security: *Ensure the secure use of radioactive materials.*

### **Nuclear Reactor and Nuclear Materials and Waste Security**

**Security Objective 1:** *Ensure protection of nuclear facilities and radioactive materials.*

**Performance Indicators:**

<p><b>FY 2015-2019:</b></p>	<p><b>Performance Goal 1:</b> Number of instances of sabotage, theft, diversion, or loss of risk-significant quantities of radioactive material that meet or exceed AO Criteria I.C.1 (stolen, diverted, abandoned, or unrecovered lost), I.C.2 (radiological sabotage), and Criterion I.C.3 (substantiated case of actual theft, diversion, or loss of a formula quantity of SNM or an inventory discrepancy).</p>
<p><b>Security Target:</b></p>	<p>Zero</p>
<p><b>Verification:</b></p>	<p>Under AO Criterion I.C.1, the agency counts any stolen, diverted, abandoned, or unrecovered lost radioactive material that meets or exceeds the thresholds listed in Appendix A, "Category 1 and Category 2 Radioactive Materials," to 10 CFR Part 37, "Physical protection of category 1 and category 2 quantities of radioactive material." Excluded from reporting under this criterion are those events involving sources that are lost or abandoned under the following conditions: sources that have been lost and for which a reasonable attempt at recovery has been made without success, or irretrievable well logging sources as defined in 10 CFR 39.2, "Definitions." These sources are only excluded if there is reasonable assurance that the doses from these sources have not exceeded, and will not exceed, the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 and the agency has determined that the risk of theft or diversion is acceptably low.</p> <p>Losses or thefts of radioactive material greater than or equal to 1,000 times the quantity specified in Appendix C, "Quantities of Licensed Material Requiring Labeling," to 10 CFR Part 20 must be reported (in accordance with 10 CFR 20.2201(a)) by telephone to the NRC HQ Operations Center or Agreement State immediately (interpreted as within 4 hours) if the licensee believes that an exposure could result to persons in unrestricted areas. If an event meeting the thresholds described above occurs, it would be reported through a number of sources but primarily through this required licensee notification. Events that are publicly available are then entered and tracked in NMED, which is used to collect and store information on such events. Separate methods are used to track events that are not publicly available. Additionally, licensees must meet the reporting and accounting requirements in 10 CFR Part 73, "Physical Protection of Plants and Materials," and 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material."</p> <p>The NRC's inspection programs are key elements in verifying the completeness and accuracy of licensee reports. The IMPEP also provides a mechanism to verify that Agreement States and the NRC regions are consistently collecting and reporting such events as received from the licensees and are entering these</p>

**ANNUAL PERFORMANCE PLAN**

	<p>events in NMED. In some cases, upon receiving a report, the NRC or Agreement State initiates an independent inspection that verifies the reliability of the reported information. When performed, these inspections enable the NRC or Agreement State to verify the accuracy of the reported data.</p> <p>The regulation at 10 CFR 20.2201(b) requires a 30-day written report for lost or stolen sources that are greater than or equal to 10 times the quantity specified in Appendix C to 10 CFR Part 20 if the source is still missing at that time. Furthermore, 10 CFR 20.2201(d) requires an additional written report within 30 days of a licensee learning any additional substantive information. The NRC interprets this requirement as including reporting recovery of sources.</p> <p>The NRC issued guidance in Regulatory Issue Summary (RIS) 2005-21, "Clarification of the Reporting Requirements in 10 CFR 20.2201," dated November 14, 2005, to clarify the current requirement in 10 CFR 20.2201(d) for reporting recovery of a risk-significant source. The NRC asked the Agreement States to send copies of RIS 2005-21 (or an equivalent document) to Agreement State licensees. The NRC issued the National Source Tracking System (NSTS) final rule in November 2006. On January 31, 2009, NRC licensees and Agreement State licensees were required to begin reporting information on source transactions to the NSTS. Implementation of this system creates an inventory of risk-significant sources. This rulemaking established reporting requirements for risk-significant sources (including reporting timeframes) by adding specific requirements to 10 CFR 20.2201, "Reports of Theft or Loss of Licensed Material," for risk-significant sources, including a requirement for licensees to report within 30 days the recovery of a risk-significant source.</p>
<p><b>Validation:</b></p>	<p>Events collected under this performance indicator are actual losses, thefts, or diversions of materials described above. Such events could compromise public health and safety, the environment, and the common defense and security. Events of this magnitude are rare. The information reported under 10 CFR Part 73 and 10 CFR Part 74 is required so that the NRC is aware of events that could endanger public health and safety or national security. Any failures at the level of the strategic plan would result in immediate investigation and follow-up.</p> <p>If an event subject to the reporting requirements described above occurs, it would result in a prompt and thorough evaluation of the event, its consequences, its root causes, and the necessary actions by the licensee, the NRC, or an Agreement State to mitigate the situation and prevent recurrence.</p>

<p><b>Verification:</b></p>	<p>In AO Criterion I.C.2, radiological sabotage as defined in 10 CFR 73.2. In AO Criterion I.C.3, “substantiated” means a situation in which there is an indication of loss, theft, or unlawful diversion, such as an allegation of diversion, report of lost or stolen material, or other indication of loss of material control or accountability that cannot be refuted following an investigation, and requires further action on the part of the agency or other proper authorities. A formula quantity of SNM is defined in 10 CFR 70.4. Licensees subject to the requirements in 10 CFR Part 73 must call the NRC within 1 hour of an occurrence to report any breaches of security or other event that may potentially lead to theft or diversion of material or to sabotage at a nuclear facility. The NRC’s safeguards requirements are described in 10 CFR 73.71, “Reporting of Safeguards Events”; Appendix G, “Reportable Safeguards Events,” to 10 CFR Part 73; and 10 CFR 74.11, “Reports of Loss or Theft or Attempted Theft or Unauthorized Production of Special Nuclear Material.”</p> <p>The information assessment team composed of NRC HQ and regional staff members would conduct an immediate assessment for any significant events to determine any further actions needed, including coordination with the intelligence community and law enforcement. In accordance with 10 CFR 73.71(d), the licensee must also file a written report within 60 days of the incident that describes the event and the steps that the licensee took to protect the nuclear facility. This information will enable the NRC to assess whether radiological sabotage has occurred.</p>
<p><b>Validation:</b></p>	<p>Events subject to reporting requirements are those that endanger public health and safety and the environment through deliberate acts of theft or diversion of material or through sabotage directed against the nuclear facilities that the agency licenses. Events of this type are extremely rare. If such an event occurs, it would result in a prompt and thorough investigation of the event, its consequences, its root causes, and the necessary actions by the licensee or the NRC to mitigate the situation and prevent recurrence. The investigation ensures the validity of the information and assesses the significance of the event.</p>

<p><b>Verification:</b></p>	<p>Licensees must record events associated with AO Criterion I.C.3 within 24 hours of the identified event in a safeguards log that the licensee maintains. The licensee must retain the log as a record for 3 years after the last entry is made or until termination of the license. The NRC relies on its safeguards inspection program to ensure the reliability of recorded data. The NRC makes a determination of whether a substantiated breakdown has resulted in a vulnerability to radiological sabotage, theft, diversion, or unauthorized enrichment of SNM. When making substantiated breakdown determinations, the NRC evaluates the</p>
-----------------------------	--

**ANNUAL PERFORMANCE PLAN**

	materials event data to ensure that licensees are reporting and collecting the proper event data.
<b>Validation:</b>	<p>“Substantiated” means a situation that requires additional action by the agency or other proper authorities because of an indication of loss, theft, or unlawful diversion—such as an allegation of diversion, report of lost or stolen material, statistical processing difference, other system breakdown closely related to the material control and accounting program (such as an item control system associated with the licensee’s facility information technology system), or other indication of loss of material control or accountability—that cannot be refuted following an investigation. A formula quantity of SNM is defined in 10 CFR 70.4.</p> <p>Events collected under this performance indicator may indicate a vulnerability to radiological sabotage, theft, diversion, or loss of SNM. Such events could compromise public health and safety, the environment, and the common defense and security. The NRC relies on its safeguards inspection program to help validate the reliability of recorded data and to determine whether a breakdown of a physical protection or material control and accounting system has actually resulted in a vulnerability.</p>

<b>FY 2015-2019:</b>	<b>Performance Goal 2:</b> Number of substantial breakdowns of physical security, cyber security, or material control and accountability that meet or exceed AO Criterion I.C.4 (substantial breakdown in physical security, cyber security, or material control and accountability) and AO Criterion I.C.3 (substantiated case of actual theft, diversion, or loss of a formula quantity of SNM or an inventory discrepancy)
<b>Security Target:</b>	Less than or equal to one
<b>Verification:</b>	In AO Criterion I.C.4, a “substantial breakdown” is defined as a red finding under the Reactor Oversight Process (ROP) in the physical security inspection program or any plant or facility determined to have overall unacceptable performance resulting in a determination of overall unacceptable performance or in a shutdown condition (inimical to the effective functioning of the Nation’s critical infrastructure). Radiological sabotage is defined in 10 CFR 73.2. Licensees are required to report to the NRC, immediately after the occurrence becomes known, any known breakdowns of physical security, based on the requirements in 10 CFR 73.71 and Appendix G to 10 CFR Part 73. If a licensee reports such an event, the HQ operations officer prepares an official record of the initial event report. The NRC begins responding to such an event immediately upon notification with the activation of its information assessment team. A licensee must follow its initial telephone notification with a written report submitted to the NRC within 30 days.

	<p>The licensee records breakdowns of physical protection resulting in a vulnerability to radiological sabotage, theft, diversion, or loss of SNM or radioactive waste within 24 hours in a safeguards log that the licensee maintains. The licensee must retain the log as a record for 3 years after the last entry is made or until termination of the license. Licensees subject to 10 CFR Part 73 must also meet the reporting requirements detailed in 10 CFR 73.71. The NRC evaluates all of the reported events, based on the criteria in 10 CFR 73.71 and Appendix G to 10 CFR Part 73. The NRC also maintains and relies on its safeguards inspection program to ensure the reliability of recorded and reported data.</p>
<b>Validation:</b>	<p>Events assessed under this performance indicator are those that threaten nuclear activities by deliberate acts, such as radiological sabotage, directed against facilities. If a licensee reports such an event, the information assessment team evaluates and validates the initial report and determines any further actions that may be necessary. Tracking breakdowns of physical security indicates whether the licensee is taking the necessary security precautions to protect the public, given the potential consequences of a nuclear accident attributable to sabotage or the inappropriate use of nuclear material either in this country or abroad.</p> <p>Events collected under this performance indicator may indicate a vulnerability to radiological sabotage, theft, diversion, or loss of SNM or radioactive waste. Such events could compromise public health and safety, the environment, and the common defense and security. The NRC relies on its safeguards inspection program to help validate the reliability of recorded data and to determine whether a breakdown of a physical protection or material control and accounting system has actually resulted in a vulnerability.</p>

**Security Objective 2:** *Ensure protection of classified and Controlled Unclassified Information*

**Performance Indicators:**

<b>FY 2015-2019:</b>	<b>Performance Goal 3:</b> Number of significant unauthorized disclosures of classified or Safeguards Information by licensees, as defined by AO Criterion I.C.5 (significant unauthorized disclosures of classified information or Safeguards Information), and by NRC employees or contactors, as defined by NRC internal criteria
<b>Security Target:</b>	Zero
<b>Verification:</b>	In regard to AO Criterion I.C.5, any alleged or suspected violations by NRC licensees of the Atomic Energy Act, Espionage Act, or other Federal statutes related to classified or Safeguards Information must be reported to the NRC under the requirements in 10 CFR 95.57(a) (for classified information),

## ANNUAL PERFORMANCE PLAN

	<p>10 CFR Part 73 (for Safeguards Information), and NRC orders (for Safeguards Information subject to modified handling requirements). However, for performance reporting, the NRC would only count those disclosures or compromises that actually cause damage to national security or that threatens public health and safety.</p> <p>Such events would be reported to the cognizant security agency (i.e., the security agency with jurisdiction) and the regional administrator of the appropriate NRC regional office, as listed in Appendix A, "U.S. Nuclear Regulatory Commission Offices and Classified Mailing Addresses," to 10 CFR Part 73. The regional administrator would then contact the Division of Security Operations at NRC HQ, which would assess the violation and notify other NRC offices and Government agencies, as appropriate. A determination would be made as to whether the compromise damaged national security or public health and safety. Any unauthorized disclosures or compromises of classified or Safeguards Information that damaged national security or public health and safety would result in immediate investigation and follow-up by the NRC. In addition, NRC inspections will verify that licensees' routine handling of classified information and Safeguards Information (including Safeguards Information subject to modified handling requirements) conforms to established security information management requirements.</p> <p>Any alleged or suspected violations of this performance indicator by NRC employees, contractors, or other personnel would be reported, in accordance with NRC procedures, to the Director of the Division of Facilities and Security at NRC HQ. The NRC maintains a strong system of controls over national security and Safeguards Information, including (1) annual required training for all employees, (2) safe and secure document storage, and (3) physical access control in the form of guards and badged access.</p>
<b>Validation:</b>	Events collected under this performance indicator are unauthorized disclosures of classified information or Safeguards Information that damage the national security or public health and safety. Events of this magnitude are not expected and would be rare. If such an event occurs, it would result in a prompt and thorough investigation, including consequences, root causes, and necessary actions by the licensees and the NRC to mitigate the consequences and prevent recurrence. NRC investigation teams also validate the materials event data to ensure that licensees are reporting and collecting the proper event data.

**MAJOR MANAGEMENT CHALLENGES**

The NRC did not identify any programs or management functions that have greater vulnerability to waste, fraud, abuse, and mismanagement, as defined by GPRA Modernization Act of 2010 to be major management challenges.

**STRATEGIC PLAN STRATEGIES AND SUPPORTING BUSINESS LINES**

The FY 2018–2022 Strategic Plan, which will be finalized in February 2018, identifies the strategies needed for the NRC to achieve its Strategic Goals and Objectives. The following table shows which agency business lines support each strategy. The Strategic Plan will be posted at this link:

<https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1614/v7/>.

**SUPPORTING BUSINESS LINES AND STRATEGIC PLAN STRATEGIES**

<b>Business Line</b>	<b>Strategy</b>
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 1:</b> Maintain and enhance the NRC’s regulatory programs, using information gained from domestic and international operating experience, lessons learned, and advances in science and technology.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 2:</b> Further risk-inform the current regulatory framework in response to advances in science and technology, policy decisions, and other factors, including prioritizing efforts to focus on the most safety-significant issues.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 3:</b> Enhance the effectiveness and efficiency of licensing and certification activities to maintain both quality and timeliness of licensing and certification reviews.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 4:</b> Maintain effective and consistent oversight of licensee performance with a focus on the most safety-significant issues.
Nuclear Materials Users, Decommissioning and LLW	<b>Safety Strategy 5:</b> Maintain material safety through the National Materials Program in partnership with Agreement States.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 6:</b> Identify, assess, and resolve safety issues.
Corporate Support; Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Safety Strategy 7:</b> Ensure the NRC maintains its readiness to respond to incidents and emergencies involving NRC licensed facilities and radioactive materials and other events of domestic and international interest.

## ANNUAL PERFORMANCE PLAN

Business Line	Strategy
Fuel Facilities; New Reactors, Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 8:</b> Verify that nuclear facilities are constructed and operated in accordance with permits and licenses and that the environmental and safety regulatory infrastructure is adequate to support the issuance of new licenses.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 1:</b> Maintain and further risk inform the current regulatory framework for security using information gained from operating experience, lessons learned, external and internal assessments, technology advances, and changes in the threat environment.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 2:</b> Maintain effective, consistent, and risk-informed oversight of licensee performance with respect to meeting NRC security requirements.
Nuclear Materials Users	<b>Security Strategy 3:</b> Maintain material security through the National Materials Program in partnership with the safety programs administered by the Agreement States.
Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 4:</b> Proactively identify, assess, and address threats, vulnerabilities, and security risks.
Corporate Support; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 5:</b> Support U.S. national security interests and nuclear nonproliferation policy objectives consistent with the NRC's statutory mandate through cooperation with domestic and international partners.
Fuel Facilities; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 6:</b> Ensure material control and accounting for special nuclear materials.
Corporate Support; Decommissioning and LLW; Fuel Facilities; New Reactors; Nuclear Materials Users; Operating Reactors; Spent Fuel Storage and Transportation	<b>Security Strategy 7:</b> Ensure that programs for the handling and control of classified and Controlled Unclassified Information are effectively implemented at the NRC and at licensed facilities.

**OFFICE OF THE INSPECTOR GENERAL**

The NRC’s Office of the Inspector General (OIG) was established as a statutory entity on April 15, 1989, in accordance with the 1988 amendments to the Inspector General Act. The OIG mission is to independently and objectively audit and investigate programs and operations to promote effectiveness and efficiency, and to prevent and detect fraud, waste, and abuse. Starting in fiscal year (FY) 2014, the NRC’s OIG has exercised the same authorities with respect to the Defense Nuclear Facilities Safety Board (DNFSB) per the Consolidated Appropriations Act, 2014.

<b>NRC OIG Budget Authority and Full-Time Equivalents (Dollars in Millions)</b>						
	<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Program Support	1.472		1.647		0.175	
Program Salaries and Benefits	10.575	63.0	10.962	63.0	0.387	0.0
<b>Total</b>	<b>\$12.047</b>	<b>63.0</b>	<b>\$12.609</b>	<b>63.0</b>	<b>0.562</b>	<b>0.0</b>

Numbers may not add due to rounding.

The FY 2019 budget request for the NRC OIG is \$12.609 million, which includes \$10.962 million in salaries and benefits to support 63 full-time equivalent (FTE), and \$1.647 million in program support. These resources will support Inspector General auditing and investigation functions for both the NRC, \$11.506 million and the DNFSB, \$1.103 million, respectively.

OIG is showing the full cost associated with its programs for the FY 2019 budget with the following caveat: as a result of an October 1989 memorandum of understanding between the NRC’s Chief Financial Officer and the Inspector General and a subsequent amendment in March 1991, OIG no longer requests that funding for some OIG management and support services be included in the OIG appropriation. It was agreed that funds for OIG infrastructure requirements and other agency support services would instead be included in the NRC’s main appropriation. For the most part, these costs are not readily severable. Thus, this funding continues to be included in NRC’s main appropriation.

**AUDITS PROGRAM**

<b>Audits Budget Authority (Dollars in Millions)</b>						
<b>Summary</b>	<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Program Support	8.048	41.0	8.495	41.0	0.447	0.0
<b>Total</b>	<b>\$8.048</b>	<b>41.0</b>	<b>\$8.495</b>	<b>41.0</b>	<b>0.447</b>	<b>0.0</b>

Numbers may not add due to rounding.

## **OFFICE OF THE INSPECTOR GENERAL**

---

The OIG Audits Program focuses on the agency's management and financial operations; economy and efficiency with which an organization, program, or function is managed; and whether the programs achieve intended results. OIG auditors assess the degree to which an organization complies with laws, regulations, and internal policies in carrying out programs, and they test program effectiveness as well as the accuracy and reliability of financial statements. The overall objective of an audit is to identify ways to enhance agency operations and promote greater economy and efficiency.

For FY 2019, OIG requests \$8.495 million and 41 FTE to carry out its Audits Program activities for NRC and DNFSB programs. With these resources, the Audits Program will conduct approximately 24 audits and evaluations for the NRC. This will enable OIG to provide coverage of the NRC's Nuclear Reactor Safety, Nuclear Materials and Waste Safety, Security, and Corporate Support programs. OIG's assessment of these mission-critical programs will support the agency in accomplishing its goals to ensure adequate protection of public health and safety and the environment, and in the secure use and management of radioactive materials.

In addition, OIG will conduct approximately six audits and evaluations that will cover various DNFSB programs and operations. These assessments will support the DNFSB's primary purpose of ensuring adequate protection of public health and safety in the U.S. Department of Energy's defense nuclear facilities and operations.

### **CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION**

OIG's FY 2019 budget request reflects the funding level needed to sustain the authorized staffing level, conduct legislatively mandated audits at NRC and DNFSB, and fund essential contract support and travel activities related to audit work at both agencies.

### **FY 2018–FY 2019 AUDITS PROGRAM PERFORMANCE MEASURES**

- Ensure that 85 percent of the NRC's completed audit products or activities will have a high impact on strengthening the NRC's safety, security, and/or corporate management programs.
- Obtain NRC agreement on at least 92 percent of OIG audit recommendations.
- Obtain final action on 70 percent of NRC and 50 percent of DNFSB OIG audit recommendations within 2 years.
- Ensure that 60 percent of DNFSB audits undertaken are issued within a year.

### **SELECTED FY 2017 AUDITS PROGRAM ACCOMPLISHMENTS**

In FY 2017, OIG issued 33 reports, with 27 pertaining to NRC programs and operations and 6 pertaining to DNFSB programs and operations. These reports either evaluate high-risk agency programs or comply with mandatory audits pursuant to financial and computer security-related legislation. Additional information related to work performed may be found on the OIG Web Site at <http://www.nrc.gov/insp-gen/pubs.html#Semi-Annual>.

## INVESTIGATIONS PROGRAM

Investigations Budget Authority (Dollars in Millions)						
	FY 2018 Annualized CR		FY 2019 Request		Changes from FY 2018	
	\$M	FTE	\$M	FTE	\$M	FTE
Program Support	3.996	22.0	4.114	22.0	0.118	0.0
<b>Total</b>	<b>\$3.996</b>	<b>22.0</b>	<b>\$4.114</b>	<b>22.0</b>	<b>\$0.118</b>	<b>0.0</b>

Numbers may not add due to rounding.

The OIG's responsibility for detecting and preventing fraud, waste, and abuse within the NRC and DNFSB includes investigating possible violations of criminal statutes relating to NRC and DNFSB programs and activities, investigating misconduct by NRC and DNFSB employees, interfacing with the U.S. Department of Justice (DOJ) on OIG-related criminal matters, and coordinating investigations and other OIG initiatives with Federal, State, and local investigative agencies and other OIGs. Investigations may be initiated as a result of allegations or referrals from private citizens; licensee employees; NRC and DNFSB employees; Congress; other Federal, State, and local law enforcement agencies; OIG audits; the OIG hotline; and Inspector General initiatives directed at bearing a high potential for fraud, waste, and abuse.

For FY 2019, OIG requests \$4.114 million and 22 FTE to carry out its Investigations Program activities for NRC and DNFSB programs. Reactive investigations into allegations of criminal and other wrongdoing will continue to be OIG's priority. The Investigations Program's main concentration of effort will involve investigations of alleged NRC or DNFSB staff misconduct that could adversely impact matters related to the health and safety mission of the NRC and the DNFSB. OIG has also implemented a series of proactive initiatives designed to identify specific high-risk areas that are most vulnerable to fraud, waste, and abuse. With these resources, OIG expects to conduct approximately 40 investigations at the NRC and at DNFSB covering a broad range of allegations concerning misconduct and mismanagement affecting various NRC and DNFSB programs.

### CHANGES FROM FY 2018 ANNUALIZED CONTINUING RESOLUTION

FY 2019 resources increase in the Investigations Program.

### FY 2018–FY 2019 INVESTIGATIONS PROGRAM PERFORMANCE MEASURES

- Ensure 85 percent of the NRC's investigations or activities completed will have a high impact on strengthening the NRC's safety, security, and/or corporate management programs.
- Obtain 90 percent agency action in response to the NRC's OIG investigative reports.
- Complete 90 percent of NRC active cases in less than 18 months on average.
- Refer at least 20 percent of the NRC's closed investigations for criminal prosecution.
- Achieve a 60 percent success rate for judicial or administrative actions in response to the NRC's OIG investigative reports.
- Complete 85 percent of DNFSB active cases in less than 18 months on average.
- Obtain 90 percent DNFSB action taken in response to investigative reports.

## **SELECTED FY 2017 INVESTIGATIONS PROGRAM ACCOMPLISHMENTS**

In FY 2017, OIG completed 40 investigations. These investigative efforts focused on violations of law or misconduct by NRC/DNFSB employees and contractors and allegations of irregularities or inadequacies in NRC/DNFSB programs and operations. Additional information related to work performed may be found on the OIG Web Site at <http://www.nrc.gov/insp-gen/pubs.html#Semi-Annual>.

## **NRC OIG'S STRATEGIC GOALS, STRATEGIES, AND ACTIONS**

The NRC OIG carries out its mission through its Audits and Investigations Programs. The NRC OIG Strategic Plan for FY 2014-2018 features three strategic goals and guides the activities of these programs. This OIG Strategic Plan (currently undergoing revision) identifies the major challenges and risk areas facing the NRC and generally aligns with the agency's mission. It also includes a number of supporting strategies and actions that describe OIG's planned accomplishments over the strategic planning period. The NRC OIG strategic plan can be found in its entirety at the following address: <http://www.nrc.gov/insp-gen/plandocs/strategic-plan.pdf>.

To ensure that each NRC OIG audit and evaluation aligns with these three goals, program areas selected for audit and evaluation are included in the OIG *Annual Plan* after being cross walked against the NRC OIG *Strategic Plan* to ensure alignment with the office's strategic goals. Furthermore, each OIG audit, evaluation, and investigation is informed by one or more of the most serious management and performance challenges facing the agency as identified by the Inspector General. The work performed by OIG auditors and investigators is mutually supportive and complementary in pursuit of these objectives. Below are the NRC OIG's current strategic goals and strategies.

### **NRC OIG STRATEGIC GOALS**

(1) **Safety:** *Strengthen the NRC's efforts to protect public health and safety and the environment.*

The NRC will continue to face safety challenges in the years ahead related to nuclear reactor oversight, the regulation of nuclear materials, and the handling of nuclear waste. A significant concern for the NRC is regulating the safe operation of the Nation's nuclear power plants through an established oversight process developed to verify that licensees identify and resolve safety issues before they adversely affect safe plant operation. The NRC is also challenged to address both domestic and international operating experience that informs regulatory activities. The NRC must address license amendment requests to increase the power generating capacity of specific commercial reactors, license renewal requests to extend reactor operations beyond set expiration dates, and the introduction of new technology such as new and advanced reactor designs.

In fulfilling its responsibilities to regulate nuclear materials, the NRC must ensure that its regulatory activities regarding nuclear materials and nuclear fuel cycle facilities adequately protect public health and safety. Moreover, the NRC's regulatory activities concerning nuclear materials must protect against radiological sabotage and theft or diversion of these materials. The licensing of facilities (e.g., fuel fabrication) with new technologies poses additional challenges. The handling of nuclear waste includes both high-level and low-level waste. High-level radioactive waste is primarily in the form of spent fuel discharged from commercial nuclear power reactors. In the high-level waste area, the NRC oversees the

potential licensing of new interim and permanent high-level waste facilities. Additional high-level waste issues include the oversight of interim storage of spent nuclear fuel both at and away from reactor sites, certification of storage and transport casks, and the oversight of the decommissioning of reactors and other nuclear sites. Low-level waste includes items that have become contaminated with radioactive materials or have become radioactive through exposure to neutron radiation. Low-level waste disposal occurs at commercially operated facilities that must be licensed by either the NRC or Agreement States. However, there are currently only four operating low-level waste disposal facilities in the United States. Below are the NRC OIG's strategies to support the NRC in facing these and other safety-related challenges.

- Strategy 1-1: Identify risk areas associated with the NRC's oversight of operating reactors, and conduct audits and investigations that lead to NRC program improvements.
- Strategy 1-2: Identify risk areas associated with the NRC's oversight of the licensing and construction of new and advanced reactors, and conduct audits and investigations that lead to NRC program improvements.
- Strategy 1-3: Identify risk areas facing the NRC's oversight of nuclear materials, and conduct audits and investigations that lead to NRC program improvements.
- Strategy 1-4: Identify risk areas associated with the NRC's oversight of high-level and low-level waste, and conduct audits and investigations that lead to NRC program improvements.

(2) **Security:** *Enhance the NRC's efforts to increase security in response to an evolving threat environment.*

The NRC must ensure that nuclear power and materials licensees take adequate measures to protect their facilities against radiological sabotage. In a threat environment where adversaries' tactics and capabilities rapidly evolve, the NRC faces the challenge of adapting to dynamic threats while also maintaining a stable security oversight regime commensurate with the agency's mission as a fair and impartial regulator. In addition, the NRC aims to balance its security oversight obligations with a duty to share information with public stakeholders about threats to the Nation's nuclear power and materials sectors. The NRC also plays a critical role in overseeing and supporting the emergency preparedness and incident response capabilities of nuclear power plant operators and the integration of their plans with government agencies in light of the prospect of natural disasters and terrorist threats. In addition, the NRC must protect its infrastructure and take the necessary steps to ensure that its staff, facilities, and information technology assets are adequately protected against projected threats and provide for the maintenance of operations.

The NRC has well-established inspection programs for evaluating the physical, information, and personnel security activities of nuclear power and materials licensees. However, the agency is currently developing regulatory guidance and an inspection program to evaluate the security of information technology used to operate nuclear power plants and fuel cycle facilities. This nascent cybersecurity program will face implementation challenges common to new inspection programs, such as communicating new requirements to licensees, conducting inspections in a consistent manner, and sustaining the inspection program beyond its initial years. Cybersecurity also entails unique oversight challenges related to the mix of digital and analog systems at different nuclear power plants, as well as the need for the NRC to understand in depth how digital equipment upgrades will impact plant operations and security. Lastly, the

complexity of digital systems and possible interfaces with licensees' administrative, security, and operations systems requires that the NRC carefully test for vulnerabilities without compromising licensees' digital networks. Below are the NRC OIG's strategies to support the NRC in facing these and other security-related challenges.

- Strategy 2-1: Identify risk areas involved in effectively securing both new and operating nuclear power plants, nuclear fuel cycle facilities, and nuclear materials, and conduct audits and investigations that lead to NRC program improvements.
- Strategy 2-2: Identify risk areas associated with maintaining a secure infrastructure (i.e., physical security, personnel security, and information security), and conduct audits and investigations that lead to NRC program improvements.
- Strategy 2-3: Identify risks associated with emergency preparedness and incident response, and conduct audits and investigations that lead to NRC program improvements.
- Strategy 2-4: Identify risks associated with international activities related to security, and conduct audits and investigations that lead to NRC program improvements.

**(3) Corporate Management:** *Increase the economy, efficiency, and effectiveness with which the NRC manages and exercises stewardship over its resources.*

The NRC faces significant challenges to efficiently, effectively, and economically manage its corporate resources. The NRC must continue to provide infrastructure and support to accomplish its regulatory mission while responding to changes in the Nation's spent fuel policy, reliance on nuclear energy, and security threat environment. Addressing the corporate resource challenges of human capital, information management, and financial management will necessitate foresight and flexibility and a strategic approach to managing change during the strategic planning period. The NRC must mitigate the loss of retiring senior experts and managers by enhancing its knowledge management, lessons-learned, and training programs, along with attracting and retaining staff with the necessary competencies. The NRC also needs to continue upgrading and modernizing its information technology resources for employees and to support public access to the regulatory process. Finally, the agency needs to continue to improve its management and control over financial resources and procurement practices.

The NRC will need to address changes caused by internal and external factors that will challenge the agency's ability to achieve its goals efficiently and effectively. The OIG will target corporate management risk areas for audits and investigations, to fulfill its statutory responsibility to evaluate the agency's financial management, and work with the NRC to identify and improve weaknesses. Below is the NRC OIG's strategy to support the agency in mitigating these challenges.

- Strategy 3-1: Identify areas of corporate management risk within the NRC and conduct audits and investigations that lead to NRC program improvements.

**FY 2019 NRC OIG BUDGET RESOURCES LINKED TO STRATEGIC GOALS**

The following table depicts the relationship of the Inspector General program and associated resource requirements to the NRC OIG strategic goals.

<b>NRC OIG Budget Resources Linked to OIG's Strategic Goals (Dollars in Millions)</b>			
<b>Program Links to Strategic Goals (\$M)</b>	<b>Strengthen NRC's Public Health &amp; Safety Efforts (\$M)</b>	<b>Enhance NRC's Security Efforts (\$M)</b>	<b>Improve NRC's Resource Stewardship Efforts (\$M)</b>
FY 2019 Programs (\$11.506) <sup>6</sup>			
Audits \$7.611	3.275	1.297	3.039
Investigations \$3.895	1.516	0.649	1.730
Numbers may not add due to rounding.			

**NRC OIG PROGRAM PERFORMANCE MEASURES**

<b>NRC OIG Strategic Goal 1: Strengthen the NRC's Efforts To Protect Public Health and Safety and the Environment</b>						
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Measure 1. Percentage of OIG products and activities that have a high impact<sup>7</sup> on improving the NRC's safety program.</b>						
<b>Target</b>	85%	85%	85%	85%	85%	85%
<b>Actual</b>	100%	100%	100%	100%	TBD	TBD
<b>Measure 2. Percentage of audit recommendations agreed to by agency.</b>						
<b>Target</b>	92%	92%	92%	92%	92%	92%
<b>Actual</b>	36% <sup>8</sup>	86% <sup>9</sup>	100%	95%	TBD	TBD
<b>Measure 3. Percentage of final agency actions taken within 2 years on audit recommendations.</b>						
<b>Target</b>	70%	70%	70%	70%	70%	70%

<sup>6</sup> The budget resources linked to the NRC OIG strategic goals does not include the \$1,103,000 for the DNFSB.

<sup>7</sup> High impact is the effect of an issued report or activity undertaken that results in: (a) confirming risk areas or management challenges that caused the agency to take corrective action, (b) real dollar savings or reduced regulatory burden, (c) identifying significant wrongdoing by individuals that results in criminal or administrative action, (d) clearing an individual wrongly accused, or (e) identifying regulatory actions or oversight that may have contributed to the occurrence of a specific event or incident or resulted in a potential adverse impact on public health or safety.

<sup>8</sup> The agency required more than 90 days to resolve all six recommendations in the Audit of the NRC's Compliance with Title 10 of the *Code of Federal Regulations* Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," related to environmental impact statements. Subsequently, all six recommendations were resolved.

<sup>9</sup> The agency required more than 90 days to resolve the two recommendations in the audit of NRC's oversight of active component aging. Subsequently both recommendations have been resolved.

## OFFICE OF THE INSPECTOR GENERAL

<b>NRC OIG Strategic Goal 1: Strengthen the NRC's Efforts To Protect Public Health and Safety and the Environment</b>						
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Actual</b>	33% <sup>10</sup>	47% <sup>11</sup>	76%	75%	TBD	TBD
<b>Measure 4. Percentage of agency actions taken in response to investigative reports.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	100%	100%	100%	0% <sup>12</sup>	TBD	TBD
<b>Measure 5. Percentage of active cases completed in less than 18 months on average.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	50% <sup>13</sup>	50% <sup>14</sup>	60% <sup>15</sup>	0% <sup>16</sup>	TBD	TBD
<b>Measure 6. Percentage of closed investigations referred to DOJ or other relevant authorities.</b>						
<b>Target</b>		20% <sup>17</sup>	20%	20%	20%	20%
<b>Actual</b>		N/A	N/A	N/A	TBD	TBD
<b>Measure 7. Percentage of closed investigations resulting in indictments, convictions, civil suits or settlements, judgments, administrative actions, monetary results, or IG clearance letters.<sup>18</sup></b>						
<b>Target</b>		60%	60%	60%	60%	60%
<b>Actual</b>		100%	100%	0% <sup>19</sup>	TBD	TBD

<sup>10</sup> The agency required more than 2 years for final action on all six recommendations in the audit of the NRC's oversight of industrial radiography. Final action was completed in October 2015.

<sup>11</sup> The agency required more than 2 years for final action on one of four recommendations on the audit of the NRC's issuance of general licenses. Final action was completed in October 2014.

<sup>12</sup> Only one case was applicable to this measure and the agency did not take action in response to the report.

<sup>13</sup> Of the four active cases measured in the safety arena for the year, two cases were closed in less than 18 months, which resulted in an achievement rate of 50 percent.

<sup>14</sup> Of two active investigative cases measured in the safety arena for the year, one case was closed in less than 18 months, which resulted in an achievement rate of 50 percent.

<sup>15</sup> The complexity of two investigations in the safety arena required additional time to close these investigations.

<sup>16</sup> There was only one case applicable to this measure; the case was not closed within 18 months, resulting in a measure of 0 percent.

<sup>17</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations referred to DOJ or relevant administrative authority.

<sup>18</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgment, administrative action, or monetary result. Starting in FY 2017, OIG added closed investigations that resulted in IG clearance letters to this measure. A clearance letter is a document provided to an employee in cases where an investigation is initiated in response to an allegation of employee misconduct, and the misconduct is not substantiated.

<sup>19</sup> Only one case was applicable to this measure and it did not result in any of the listed outcomes.

<b>NRC OIG Strategic Goal 2: Enhance the NRC's Efforts To Increase Security in Response to an Evolving Threat Environment</b>						
	2014	2015	2016	2017	2018	2019
<b>Measure 1. Percentage of OIG products and activities that have a high impact on improving the NRC's security program.</b>						
<b>Target</b>	85% <sup>20</sup>	85%	85%	85%	85%	85%
<b>Actual</b>	100%	100%	91%	100%	TBD	TBD
<b>Measure 2. Percentage of audit recommendations agreed to by the agency.</b>						
<b>Target</b>	92%	92%	92%	92%	92%	92%
<b>Actual</b>	100%	100%	100%	100%	TBD	TBD
<b>Measure 3. Percentage of final agency actions taken within 2 years on audit recommendations.</b>						
<b>Target</b>	70%	70%	70%	70%	70%	70%
<b>Actual</b>	70%	82%	64% <sup>21</sup>	55% <sup>22</sup>	TBD	TBD
<b>Measure 4. Percentage of agency actions taken in response to investigative reports.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	100%	100%	100%	N/A	TBD	TBD
<b>Measure 5. Percentage of active cases completed in less than 18 months on average.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	75% <sup>23</sup>	100%	80% <sup>24</sup>	100%	TBD	TBD
<b>Measure 6. Percentage of closed investigations referred to DOJ or other relevant authorities.</b>						
<b>Target</b>		20% <sup>25</sup>	20%	20%	20%	20%
<b>Actual</b>		N/A	N/A	50%	TBD	TBD
<b>Measure 7. Percentage of closed investigations resulting in indictments, convictions, civil suits or settlements, judgments, administrative actions, monetary results or IG clearance letters.<sup>26</sup></b>						
<b>Target</b>		60%	60%	60%	60%	60%
<b>Actual</b>		100%	100%	33% <sup>27</sup>	TBD	TBD

<sup>20</sup> Starting in FY 2014, OIG began measuring the percentage of OIG products and activities that have a high impact on improving the NRC's security program at 85 percent.

<sup>21</sup> One audit recommendation in the security arena required additional time to close. This recommendation has since been closed.

<sup>22</sup> Four of eight recommendations on the Independent Evaluation of NRC's Implementation of the Federal Information Security Management Act (FISMA) for Fiscal Year 2012 required additional time to close. These four recommendations have since been closed.

<sup>23</sup> Of the four active cases measured in the security arena for the year, three cases were closed in less than 18 months, which resulted in an achievement rate of 75 percent.

<sup>24</sup> The complexity of one investigation in the security arena required additional time to close this investigation.

<sup>25</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations referred to the DOJ, State or local law enforcement officials, or relevant administrative authority.

<sup>26</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgment, administrative action, or monetary result. Starting in FY 2017, OIG added closed investigations that resulted in IG clearance letters to this measure. A clearance letter is a document provided to an employee in cases where an investigation is initiated in response to an allegation of employee misconduct, and the misconduct is not substantiated.

<sup>27</sup> Only one of three closed investigations resulted in an indictment, conviction, civil suit or settlement, judgment, administrative action, monetary result or IG clearance letter which resulted in an achievement rate of 33 percent.

<b>NRC OIG Strategic Goal 3: Improve the Economy, Efficiency, and Effectiveness with Which the NRC Manages and Exercises Stewardship over Its Resources</b>						
	2014	2015	2016	2017	2018	2019
<b>Measure 1. Percentage of OIG completed products and activities that have a high impact on improving Corporate Management Programs.</b>						
<b>Target</b>	85%	85%	85%	85%	85%	85%
<b>Actual</b>	74% <sup>28</sup>	87%	85%	93%	TBD	TBD
<b>Measure 2. Percentage of audit recommendations agreed to by the agency.</b>						
<b>Target</b>	92%	92%	92%	92%	92%	92%
<b>Actual</b>	100%	100%	100%	100%	TBD	TBD
<b>Measure 3. Percentage of final agency actions taken within 2 years on audit recommendations.</b>						
<b>Target</b>	70%	70%	70%	70%	70%	70%
<b>Actual</b>	73%	90%	80%	81%	TBD	TBD
<b>Measure 4. Percentage of agency actions taken in response to investigative reports.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	100%	100%	100%	89% <sup>29</sup>	TBD	TBD
<b>Measure 5. Percentage of active cases completed in less than 18 months on average.</b>						
<b>Target</b>	90%	90%	90%	90%	90%	90%
<b>Actual</b>	91%	58% <sup>30</sup>	78% <sup>31</sup>	85% <sup>32</sup>	TBD	TBD
<b>Measure 6. Percentage of closed investigations referred to DOJ or other relevant authorities.</b>						
<b>Target</b>		20% <sup>33</sup>	20%	20%	20%	20%
<b>Actual</b>		28%	45%	44%	TBD	TBD
<b>Measure 7. Percentage of closed investigations resulting in indictments, convictions, civil suits or settlements, judgments, administrative actions, monetary results, or IG clearance letters.<sup>34</sup></b>						
<b>Target</b>		60%	60%	60%	60%	60%
<b>Actual</b>		73%	71%	65%	TBD	TBD

<sup>28</sup> A more rigorous standard was applied for the impact of investigations in the corporate management arena.

<sup>29</sup> One of nine investigative cases resulted in no action taken in response to an investigative report which resulted in an 89 percent achievement rate.

<sup>30</sup> In the corporate management arena, OIG needed more than 18 months to complete action on average for 18 of 31 cases.

<sup>31</sup> The complexity of several investigations in the corporate management arena required additional time to close these investigations.

<sup>32</sup> The complexity of several investigations required additional time to close these investigations.

<sup>33</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations referred to the DOJ, State or local law enforcement officials, or relevant administrative authority.

<sup>34</sup> Starting in FY 2014, OIG began measuring the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgment, administrative action, or monetary result. Starting in FY 2017, OIG added closed investigations that resulted in IG clearance letters to this measure. A clearance letter is a document provided to an employee in cases where an investigation is initiated in response to an allegation of employee misconduct, and the misconduct is not substantiated.

**VERIFICATION AND VALIDATION OF MEASURED VALUES AND PERFORMANCE**

The OIG uses an automated management information system to capture program performance data for the Audits and Investigations Programs. The integrity of the system was thoroughly tested and validated before implementation. Reports generated by the system provide both detailed information and summary data. All system data are deemed reliable.

**PROGRAM EVALUATIONS (PEER REVIEWS)**

An independent audit peer review performed in FY 2015 by the U.S. Federal Communications Commission OIG gave NRC OIG a peer review rating of “Pass.” This is the highest rating possible based on the available options of “Pass,” “Pass with deficiencies,” and “Fail.”

In addition, in October 2016, the Tennessee Valley Authority OIG issued a report documenting the results of its independent investigative peer review of OIG’s Investigations Program. The program was found to be in compliance with quality standards established by the Council of the Inspectors General on Integrity and Efficiency and the Attorney General Guidelines for Offices of Inspectors General with Statutory Law Enforcement Authority.

**DNFSB OIG PROGRAM PERFORMANCE MEASURES**

Performance Measures for the DNFSB OIG Program					
	2015	2016	2017	2018	2019
<b>Measure 1. Percentage of OIG audits undertaken and issued within a year.<sup>35</sup></b>					
<b>Target</b>	60%	60%	60%	60%	60%
<b>Actual</b>	83%	100%	100%	TBD	TBD
<b>Measure 2. Percentage of final Board actions taken within 2 years on audit recommendations.<sup>36</sup></b>					
<b>Target</b>	50%	50%	50%	50%	50%
<b>Actual</b>	100%	100%	100%	TBD	TBD
<b>Measure 3. Percentage of Board actions taken in response to investigative reports.<sup>37</sup></b>					
<b>Target</b>	90%	90%	90%	90%	90%
<b>Actual</b>	100%	100%	N/A	TBD	TBD
<b>Measure 4. Percentage of active cases completed in less than 18 months.<sup>38</sup></b>					
<b>Target</b>	85%	85%	85%	85%	85%
<b>Actual</b>	100%	100%	100%	TBD	TBD

<sup>35</sup> OIG anticipates issuing six audit reports per year. This measure was been tracked since FY 2015.

<sup>36</sup> This measure has been tracked since FY 2015.

<sup>37</sup> This measure has been tracked since FY 2015.

<sup>38</sup> This measure has been tracked since FY 2015.

**INSPECTOR GENERAL REFORM ACT CERTIFICATION FOR FY 2019**

In accordance with the Inspector General Reform Act (Public Law 110-409), the OIG NRC budget request was submitted to the NRC Chairman for FY 2019 and was subsequently approved. In addition, the OIG DNFSB budget request was submitted to the DNFSB Chairman for FY 2019 who provided no comments.

Furthermore, OIG's total budget request includes \$140,000 for OIG training. The amount requested provides for all OIG specific training requirements for which there is a fee charged to OIG for attendance. In addition, funds are available for the OIG share of the resources needed to support the Council of the Inspectors General on Integrity and Efficiency.

**APPENDIX A: FULL COST OF U.S. NUCLEAR  
REGULATORY COMMISSION PROGRAMS**

This appendix provides the full cost of NRC programs. The table below includes the allocated corporate support costs for business lines, excluding the High-Level Waste Business Line, Integrated University Program, and the Office of the Inspector General, in addition to the business line costs presented in each chapter of this report.

<b>Full Cost Budget Authority and Full-Time Equivalents</b>									
<b>(Dollars in Millions)</b>									
<b>Business Line/ Major Program</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>		
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	
Operating Reactors	551.7	1,939.5	535.3	2,029.6	562.8	1,911.4	27.4	(118.2)	
New Reactors	148.6	544.9	147.1	579.7	147.3	491.9	0.2	(87.8)	
<b>Nuclear Reactor Safety</b>	<b>\$700.3</b>	<b>2484.4</b>	<b>\$682.4</b>	<b>2,609.3</b>	<b>\$710.1</b>	<b>2,403.3</b>	<b>\$27.7</b>	<b>(206.0)</b>	
Fuel Facilities	37.7	136.9	37.6	144.0	38.3	133.6	0.7	(10.4)	
Nuclear Materials Users	92.3	286.9	90.6	303.2	86.8	268.4	(3.7)	(34.8)	
Spent Fuel Storage and Transportation	36.7	124.6	33.9	130.0	37.0	124.8	3.2	(5.1)	
Decommissioning and Low-Level Waste	40.3	140.0	39.5	146.5	38.1	129.8	(1.4)	(16.7)	
High-Level Waste	0.9	1.3	0.0	0.0	47.7	124.0	47.7	124.0	
<b>Nuclear Materials and Waste Safety</b>	<b>\$207.8</b>	<b>689.8</b>	<b>\$201.6</b>	<b>723.7</b>	<b>\$248.0</b>	<b>780.7</b>	<b>\$46.4</b>	<b>57.0</b>	
<b>Major Program Subtotal</b>	<b>\$908.1</b>	<b>3174.2</b>	<b>\$884.0</b>	<b>3,333.0</b>	<b>\$958.1</b>	<b>3,184.0</b>	<b>\$74.1</b>	<b>(149.0)</b>	
Integrated University Program	15.0	0.0	14.9	0.0	0.0	0.0	(14.9)	0.0	
<b>Subtotal</b>	<b>\$923.1</b>	<b>3174.2</b>	<b>\$898.9</b>	<b>3,333.0</b>	<b>\$958.1</b>	<b>3,184.0</b>	<b>\$59.2</b>	<b>(149.0)</b>	
Inspector General	12.2	61.1	12.0	63.0	12.6	63.0	0.6	0.0	
<b>Total</b>	<b>\$935.3</b>	<b>3235.2</b>	<b>\$910.9</b>	<b>3,396.0</b>	<b>\$970.7</b>	<b>3,247.0</b>	<b>\$59.8</b>	<b>(149.0)</b>	

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

## APPENDIX A: FULL COST OF U.S. NRC PROGRAMS

The fiscal year (FY) 2019 Congressional Budget Justification identifies the infrastructure and support costs for the NRC. The allocation methodology is consistent with the methodology used for preparing the agency's financial statements. The table below presents the associated infrastructure and support funding allocated to the programmatic funding to provide the full cost of each business line.

<b>Corporate Support by Business Line</b> (Dollars in Millions)								
<b>Major Program</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
Operating Reactors	187.6	390.5	181.5	436.6	187.1	380.4	5.6	(56.2)
New Reactors	52.5	111.5	51.8	124.7	48.2	97.9	(3.7)	(26.8)
<b>Nuclear Reactor Safety</b>	<b>\$240.1</b>	<b>502.1</b>	<b>\$233.4</b>	<b>561.3</b>	<b>\$235.3</b>	<b>478.3</b>	<b>\$1.9</b>	<b>(83.0)</b>
Fuel Facilities	13.2	27.7	12.9	31.0	13.1	26.6	0.2	(4.4)
Nuclear Materials Users	27.9	58.3	27.1	65.2	26.3	53.4	(0.8)	(11.8)
Spent Fuel Storage and Transportation	12.0	25.0	11.6	28.0	12.2	24.8	(0.6)	(3.1)
Decommissioning and Low-Level Waste	13.5	28.2	13.1	31.5	12.7	25.8	(0.4)	(5.7)
High-Level Waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Nuclear Materials and Waste Safety</b>	<b>\$66.6</b>	<b>139.2</b>	<b>\$64.7</b>	<b>155.7</b>	<b>\$64.3</b>	<b>130.7</b>	<b>\$(0.4)</b>	<b>(25.0)</b>
Integrated University Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>\$306.7</b>	<b>641.3</b>	<b>\$298.1</b>	<b>717.0</b>	<b>\$299.6</b>	<b>609.0</b>	<b>\$1.5</b>	<b>(108.0)</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

**APPENDIX B: BUDGET AUTHORITY BY FUNCTION**

The NRC’s budget authority is aggregated into the major categories of salaries and benefits, contract support, and travel. Salaries and benefits are estimated based on full-time equivalents (FTE), pay rates, pay raise assumptions, and effective pay periods for pay raises. Benefits costs include the Federal Government’s contributions for retirement, health benefits, life insurance, Medicare, Social Security, and the Thrift Savings Plan. Contract support comprises obligations for commercial contracts; interagency agreements; grants; and other nontravel services, such as rent and utility payments. Travel costs primarily comprise expenses for site inspections at regulated facilities, meetings with stakeholders, and international travel.

<b>Budget Authority by Function</b> (Dollars in Millions)			
	<b>FY 2018</b> <b>Annualized CR</b>	<b>FY 2019</b> <b>Request</b>	<b>Changes from</b> <b>FY 2018</b>
<b>Salaries &amp; Expenses (S&amp;E)</b>	<b>\$M</b>	<b>\$M</b>	<b>\$M</b>
Salaries and Benefits	551.1	585.8	34.7
Contract Support	325.1	347.5	22.4
Travel	22.6	24.8	2.2
<b>Total (S&amp;E)</b>	<b>\$898.9</b>	<b>\$958.1</b>	<b>\$59.2</b>
<b>Office of the Inspector General (OIG)</b>			
Salaries and Benefits	10.6	10.9	0.3
Contract Support	1.2	1.4	0.2
Travel	0.2	0.3	0.1
<b>Total (OIG)</b>	<b>\$12.0</b>	<b>\$12.6</b>	<b>\$0.6</b>
<b>Total NRC Appropriations</b>			
Salaries and Benefits	561.7	596.7	35.0
Contract Support	326.3	348.9	22.6
Travel	22.8	25.1	2.3
<b>Total (NRC)</b>	<b>\$910.9</b>	<b>\$970.7</b>	<b>\$59.8</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.



**APPENDIX C: ESTIMATED FEE RECOVERY**

The NRC's fee regulations are governed by the Independent Offices Appropriation Act of 1952 (IOAA) and the Omnibus Budget Reconciliation Act of 1990 (OBRA-90), as amended. OBRA-90 requires the NRC to recover approximately 90 percent of its annual budget authority through fees, but this fee recovery requirement excludes specific amounts (i.e., nonfee items) identified in OBRA-90 or by other legislation. OBRA-90 requires the NRC to use its IOAA authority to collect user fees for NRC work that provides specific benefits to identifiable applicants and licensees as defined in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 170, "Fees for Facilities, Materials, Imports and Export Licenses, and other Regulatory Services under the Atomic Energy Act of 1954, as amended."

The NRC also assesses fees under 10 CFR Part 171, "Annual Fees for Reactor Licenses and Fuel Cycle Licenses and Materials Licenses, including Holders of Certificates of Compliance, Registration, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC." These annual fees recover regulatory costs that are not otherwise collected through 10 CFR Part 170 fees, such as the costs of research and rulemaking activities.

The remaining portion of the NRC's annual budget authority that is not recovered through fees is used to offset certain budgeted activities, which the NRC refers to as "fee-relief" activities.

The 10 CFR Part 170 fee amount is estimated by license fee class using invoice data and adjustments to estimate workload projections. The agency develops the hourly rate used to collect 10 CFR Part 170 fees based on full-cost fee recovery guidance in accordance with Office of Management and Budget Circular No. A-25, "User Charges," dated July 8, 1993. The rate is calculated by dividing the sum of recoverable budgeted resources for mission-direct and mission-indirect program salaries and benefits, and agency support costs (which include corporate support and Office of the Inspector General costs) by mission-direct full-time equivalents (FTE) converted to hours. Mission-direct resources are budgeted to perform core work activities to fulfill the agency mission under the direct business lines. Mission-indirect resources support the core mission-direct activities. These include, for example, supervisory support, nonsupervisory support, mission travel, and training.

The NRC allocates direct budgetary resources to nine license fee classes based on supporting activities: (1) operating power reactors, (2) spent fuel storage/reactor decommissioning, (3) research and test reactors and nonpower reactors, (4) fuel facilities, (5) materials users, (6) transportation, (7) uranium recovery, (8) import and export, and (9) rare earth. The 10 CFR Part 171 fee amount is calculated by license fee class by subtracting the estimated 10 CFR Part 170 fee amount from the allocated direct budgetary resources.

The following table delineates where the major portion of a business line's direct budgetary resources are allocated when calculating 10 CFR Part 171 fees for a license fee class. The indirect portion of a business line's resources (e.g., training, travel, mission support, and supervisors), as well as corporate support budgetary resources, are distributed among all license fee classes as part of the hourly rate.

## APPENDIX C: ESTIMATED FEE RECOVERY

### CROSSWALK OF BUSINESS LINES' ALLOCATION TO FEE CLASSES\*

Business Line	License Fee Class
Operating Reactors	Power Reactors, Test and Research Reactors, Import/Export
New Reactors	Power Reactors
Fuel Facilities	Fuel Facilities
Nuclear Materials Users	Materials Users, Import/Export
Spent Fuel Storage and Transportation	Spent Fuel Storage/Reactor Decommissioning, Transportation
Decommissioning and Low-level Waste	Spent Fuel Storage/Reactor Decommissioning, Uranium Recovery

*\*Delineates where the major portion of a business line's direct budgetary resources are allocated for a license fee class. Does not include fee-relief activities. The NRC does not have licensees under the rare earth fee class at this time.*

More information about 10 CFR Part 170 and 10 CFR Part 171 can be found on the NRC's public Web site at <http://www.nrc.gov/about-nrc/regulatory/licensing/fees.html>.

If the NRC receives the full amount requested for fiscal year (FY) 2019, the estimated fee recovery amount for FY 2019 is \$815.4 million, as shown on the following page.

**APPENDIX C: ESTIMATED FEE RECOVERY**

<b>Estimated Fee Recovery</b> (Dollars in Millions)		
	<b>FY 2018 Annualized CR \$M</b>	<b>FY 2019 Projection \$M</b>
<b>Total Appropriation<sup>1</sup></b>	<b>\$910.9</b>	<b>\$970.7</b>
<b>Less Non-Fee Items</b>	<b>\$(21.9)</b>	<b>\$(64.7)</b>
<i>Generic Homeland Security</i>	15.1	14.6
<i>Waste Incidental to Reprocessing</i>	1.2	1.3
<i>Advanced Reactors Regulatory Readiness</i>	4.6	0.0
<i>Nuclear Waste Fund</i>	0.0	47.7
<i>Defense Nuclear Facilities Safety Board</i>	1.0	1.1
<b>Balance</b>	<b>\$889.0</b>	<b>\$906.0</b>
Fee Recovery Percent	90.0	90.0
<b>Fees to be Recovered</b>	<b>\$800.1</b>	<b>\$815.4</b>
Billing & Carryover Adjustments <sup>2</sup>	(0.8)	(0.8)
<b>Adjusted Fee Recovery Amount</b>	<b>\$799.3</b>	<b>\$814.6</b>
Estimated Part 170 Fees Percent <sup>3</sup>	37.0	37.0
<b>Estimated Part 170 Fees Amount</b>	<b>\$295.7</b>	<b>\$301.4</b>
Estimated Part 171 Fees Percent <sup>3</sup>	63.0	63.0
<b>Estimated Part 171 Fees Amount</b>	<b>\$503.5</b>	<b>\$513.2</b>

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding.

<sup>1</sup>Includes both salaries and expenses and Office of the Inspector General appropriations.

<sup>2</sup>The NRC applies billing and carryover adjustments to the estimated fee recovery amount to account for the sum of unpaid current year invoices minus prior year invoices that will be paid in the budget request year.

<sup>3</sup>Assumes same percentage from prior year final fee rule.



**APPENDIX D: SUMMARY OF REIMBURSABLE WORK**

The NRC performs services for other Federal agencies and non-Federal organizations on a reimbursable basis. The NRC's reimbursable work is financed with funds provided by the ordering organization and represents additional funding in excess of the NRC's directly appropriated funds. The table below lists anticipated reimbursable funding by category per fiscal year (FY). Because reimbursable work agreements can be of small dollar amounts, the resources are shown to three decimal points in this appendix.

<b>Summary of Reimbursable Work</b> (Dollars in Millions)								
<b>Description of Work</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>	
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>
<b>TECHNICAL ASSISTANCE TO OTHER FEDERAL AGENCIES</b>								
Employee Detail to U.S. Army Corps of Engineers (USACE)	0.000	0.0	0.090	0.7	0.038	0.3	(0.052)	(0.4)
Employee Detail to Domestic Nuclear Detection Office (DHS)	0.184	1.0	0.221	1.0	0.225	1.0	0.004	0.0
Employee Detail to Office of Environmental Management (DOE)	0.053	0.2	0.000	0.0	0.000	0.0	0.000	0.0
Employee Detail to Office of Management and Budget (OMB)	0.056	0.4	0.000	0.1	0.000	0.0	0.000	(0.1)
Fuel Cycle Research and Development (DOE)	0.049	0.2	0.100	0.5	0.100	0.5	0.000	0.0
Joint Funding of International Commission on Radiological Protection Activities (EPA)	0.025	0.0	0.025	0.0	0.025	0.0	0.000	0.0
Mars 2020 Mission Interagency Nuclear Safety Review Panel (NASA)	0.086	0.3	0.058	0.2	0.089	0.2	0.031	0.0
Office of Hearings and Appeals Employee Detail (DOE)	0.041	0.2	0.000	0.0	0.000	0.0	0.000	0.0
Response to Hurricane Maria (FEMA)	0.000	0.0	1.400	0.0	0.000	0.0	(1.400)	0.0
Revalidation of Selected Foreign Certificates for Packages (Casks) (DOE)	0.024	0.1	0.000	0.3	0.000	0.3	0.000	0.0
U.S. Navy Reviews	0.004	0.1	0.012	0.1	0.012	0.1	0.000	0.0
Waste Actions for Hanford (DOE)	0.073	0.3	0.510	2.0	0.510	2.0	0.000	0.0
<b>COOPERATIVE RESEARCH</b>								
Foreign Cooperative Research Agreements (Multiple)	2.117	0.0	1.900	0.0	1.900	0.0	0.000	0.0

**APPENDIX D: SUMMARY OF REIMBURSABLE WORK**

<b>Summary of Reimbursable Work</b>									
<b>(Dollars in Millions)</b>									
<b>Description of Work</b>	<b>FY 2017 Actuals</b>		<b>FY 2018 Annualized CR</b>		<b>FY 2019 Request</b>		<b>Changes from FY 2018</b>		
	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	<b>\$M</b>	<b>FTE</b>	
<b>INTERNATIONAL ASSISTANCE</b>									
International Invitational Travel (International Atomic Energy Agency, foreign governments, and international organizations)	0.243	0.0	0.400	0.0	0.400	0.0	0.000	0.0	
Invitational Travel (American Institute in Taiwan)	0.007	0.0	0.015	0.0	0.015	0.0	0.000	0.0	
<b>SECURITY-RELATED ACTIVITIES</b>									
Criminal History Program	1.623	2.3	1.700	2.0	1.700	2.0	0.000	0.0	
Information Access Authorization Program	0.579	1.5	0.540	1.5	0.540	1.5	0.000	0.0	
Material Access Authorization Program	0.028	0.2	0.000	0.5	0.000	0.5	0.000	0.0	
<b>FACILITIES REVENUE</b>									
Parking Receipts	0.029	0.0	0.015	0.0	0.015	0.0	0.000	0.0	
Recycling Reimbursements (GSA)	0.004	0.0	0.008	0.0	0.008	0.0	0.000	0.0	
<b>AGENCY TOTAL</b>	<b>\$5.225</b>	<b>6.8</b>	<b>\$6.994</b>	<b>8.9</b>	<b>\$5.577</b>	<b>8.4</b>	<b>(\$1.417)</b>	<b>(0.5)</b>	

\$M includes FTE costs as well as contract support and travel. Numbers may not add due to rounding. Does not include classified reimbursable work agreements. FY 2017 \$M represent actual amounts obligated. FY 2018 and FY 2019 \$M represent new reimbursable budget authority expected in the FY from Federal agencies or other outside sources.

**APPENDIX E: FEDERAL INFORMATION TECHNOLOGY  
ACQUISITION REFORM ACT REQUIREMENTS**

August 23, 2017

MEMORANDUM TO: Office of Management and Budget

FROM: David J. Nelson */RA/*  
Chief Information Officer  
Office of the Chief Information Officer  
U.S. Nuclear Regulatory Commission

Maureen E. Wylie */RA/*  
Chief Financial Officer  
Office of the Chief Financial Officer  
U.S. Nuclear Regulatory Commission

SUBJECT: INFORMATION TECHNOLOGY RESOURCE STATEMENTS

In accordance with [OMB Circular A-11, Sec. 51.3](#), the U.S. Nuclear Regulatory Commission (NRC) is providing this memorandum to demonstrate compliance with the Federal Information Technology Acquisition Reform Act (FITARA) through the following IT Resource Statements:

- The NRC's Chief Information Officer (CIO) affirms that he has reviewed and approved the major information technology (IT) investments portion of the budget request.
- The NRC's Chief Financial Officer (CFO) and CIO affirm that the agency's CIO had a significant role in reviewing planned IT support for major program objectives and significant increases and decreases in IT resources.
- The NRC's CFO and CIO affirm that the IT Portfolio includes appropriate estimates of all IT resources included in the budget request.
- The CIO's current common baseline rating for Element D, Item D1, "CIO reviews and approves Major IT Investment portion of budget request," is "Fully Implemented." The NRC has developed and implemented its plan to ensure that the necessary processes and procedures are in place to fulfill these common baseline FITARA responsibilities.
- The CIO can certify that the use of modular approaches and/or incremental development practices for contracts and projects associated with the Major IT Investment portion of the NRC's IT budget request.

## APPENDIX E: FITARA REQUIREMENTS

### INFORMATION TECHNOLOGY TABLE

In enacting the Federal Information Technology Acquisition Reform Act, Congress established government-wide Information Technology/Information Management (IT/IM) management controls and required an inclusive governance process that enables effective planning, budgeting, and execution for IT/IM investments. Consistent with that mandate, Office of Management and Budget Circular A-11, Section 51.3 requires the following tabular presentation of the financial and personnel resources for all major IT investments, within each agency program area. For each major IT investment, this table provides the investment title, its unique investment identifier (UII), all principal supported program names, and budget authority level for the prior year (Fiscal Year (FY) 2017), current year (FY 2018), and budget year (FY2019).

**NRC IT Table: Major IT Investments<sup>1</sup>**  
(Dollars in Millions)

UII	Major IT Investment Title	Program Area	(PRIOR YEAR) FY 2017 ACTUALS			(CURRENT YEAR) FY 2018 ANNUALIZED CR			(BUDGET YEAR) FY 2019		
			CS&T	FTE	Total	CS&T	FTE	Total	CS&T	FTE	Total
429-000002500	Financial Services	Financial Management	9.620	6.42	10.612	9.432	10.00	10.968	10.737	9.00	12.321
429-000002600	Enterprise-wide Acquisition Services	Financial Management	4.425	4.04	5.051	4.485	3.00	4.496	5.906	2.00	6.258
429-000003600	Incident Response	Nuclear Reactor Safety	3.231	2.10	3.590	3.430	3.00	3.939	4.297	5.00	5.217
429-000006200	IT Security and Compliance <sup>2</sup>	Corporate Support	7.504	19.91	10.585						
429-000006500	Data Center and Hosting <sup>2</sup>	Corporate Support	12.362	10.77	14.028						
429-000006500	Data Center and Hosting <sup>2</sup>	Nuclear Reactor Safety	0.063	0.00	0.063						
429-000006700	Office Automation and User Support <sup>2</sup>	Corporate Support	12.197	7.66	13.383						
429-000006700	Office Automation and User Support <sup>2</sup>	Nuclear Materials and Waste Safety	1.580	1.00	1.734						
429-000006700	Office Automation and User Support <sup>2</sup>	Nuclear Reactor Safety	3.751	0.00	3.751						
429-000008200	Materials Licensing and Oversight	Nuclear Materials and Waste Safety	9.862	4.38	10.611	8.951	6.50	10.055	8.179	6.00	9.289
429-000008400	Reactor Licensing and Oversight	Nuclear Reactor Safety	8.533	9.88	10.222	7.109	13.00	9.317	6.845	12.00	9.070
<b>Total</b>			<b>72.676</b>	<b>97.00</b>	<b>73.128</b>	<b>66.16</b>	<b>83.630</b>	<b>33.407</b>	<b>35.50</b>	<b>38.775</b>	<b>35.964</b>

Note 1: Table represents Actual Expenditures for FY 2017 (PY), Annualized CR for FY 2018 (CY), and Agency Budget Request for FY 2019 (BY), as required by OMB Circular A-11, Section 55, "Information Technology Investments" (page 5) [https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/a11\\_current\\_year/a11\\_2017/s55.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/a11_current_year/a11_2017/s55.pdf)

Note 2: Investment changed from Major Investment to Standard Infrastructure Investment for FY 2018 and 2019 per FY 2019 IT Budget – Capital Planning Guidance.

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES  
(AS OF JANUARY 19, 2018)**

The table below lists of all of the NRC’s rulemaking activities, including their priority and schedule, as of December 5, 2017. Of the 80 rulemaking activities listed, 59 are planned rulemaking activities and 21 are petitions for rulemaking that are currently under NRC review. The total rulemaking budget for fiscal year (FY) 2019 includes \$1.03 million and 97 full-time equivalents. The most current information available on the status of the NRC’s rulemaking activities is on the NRC public Web site at <https://www.nrc.gov/about-nrc/regulatory/rulemaking/rules-petitions.html>.

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
1	Rulemaking Actions	2018 Edition of the American Society of Mechanical Engineers Operations and Maintenance Code	High	3150-AJ97	NRC-2017-0028	N/A	12/06/2016	N/A	11/30/2019	12/31/2019	02/28/2021	03/01/2021
2	Rulemaking Actions	2019 Edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code	High	N/A	NRC-2017-0226	N/A	11/02/2017	N/A	N/A	N/A	N/A	N/A
3	Rulemaking Actions	Advanced Power Reactor (APR)-1400 (KEPCO/KHNP) Design Certification	High	3150-AJ67	NRC-2015-0224	N/A	03/04/2015	06/27/2018	08/19/2018	10/01/2018	03/16/2019	05/27/2019
4	Rulemaking Actions	American Society of Mechanical Engineers 2015 - 2017 Code Editions Incorporation by Reference	High	3150-AJ74	NRC-2016-0082	N/A	07/01/2015	N/A	01/17/2018	03/30/2018	01/17/2019	03/29/2019
5	Rulemaking Actions	Cyber Security for Fuel Facilities	High	3150-AJ64	NRC-2015-0179	N/A	03/24/2015	04/12/2016	10/06/2017	04/06/2018	08/24/2018	02/21/2019
6	Rulemaking Actions	Drug and Alcohol Testing; Technical Issues and Editorial Changes	High	3150-AJ15	NRC-2012-0079	PRM-26-4, PRM-26-7, PRM-26-8	N/A	09/01/2019	09/01/2020	02/01/2021	12/01/2021	05/01/2022
7	Rulemaking Actions	Enhanced Security for Special Nuclear Material (formerly	High	3150-AJ41	NRC-2014-0118	N/A	02/08/2006	04/22/2015	09/28/2018	03/15/2019	12/27/2019	06/15/2020

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
		Physical Protection for Category I, II, and III Special Nuclear Material)										
8	Rulemaking Actions	Enhanced Weapons for Spent Fuel Storage Installations and Transportation--Section 161A Authority	High	3150-AJ55	NRC-2015-0018	N/A	08/15/2008	03/29/2019	03/26/2020	09/11/2020	03/25/2021	09/10/2021
9	Rulemaking Actions	Enhanced Weapons, Firearms Background Checks, and Security Event Notifications	High	3150-AI49	NRC-2011-0018	N/A	08/08/2005	N/A	03/16/2015	09/22/2015	12/01/2017	09/03/2018
10	Rulemaking Actions	Fitness-for-Duty Drug Testing Program Requirements	High	3150-AI67	NRC-2009-0225	N/A	09/01/2012	07/01/2013	02/22/2017	01/31/2018	09/03/2018	01/31/2019
11	Rulemaking Actions	Greater-Than-Class-C and Transuranic Waste	High	3150-AK00	NRC-2017-0081	N/A	12/22/2015	10/29/2018	N/A	N/A	N/A	N/A
12	Rulemaking Actions	Independent Spent Fuel Storage Installation Security Requirements	High	3150-AI78	NRC-2009-0558	PRM-72-6	N/A	12/28/2020	07/28/2022	01/28/2023	12/28/2023	06/28/2024
13	Rulemaking Actions	Industrial Radiographic Operations and Training	High	N/A	NRC-2017-0022	PRM-34-6	N/A	N/A	N/A	N/A	N/A	N/A
14	Rulemaking Actions	Integrated Radioactive Source Security and Accountability	High	N/A	NRC-2015-0094	PRM-37-1	N/A	N/A	N/A	N/A	N/A	N/A
15	Rulemaking Actions	List of Approved Spent Fuel Storage Cask [This is a placeholder for several annually recurring rules.]	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Rulemaking Actions	Low-Level Radioactive Waste Disposal	High	3150-AI92	NRC-2011-0012	N/A	03/18/2009	N/A	07/18/2013	03/26/2015	05/03/2019	08/05/2019

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
17	Rulemaking Actions	Medical Use of Byproduct Material-- Medical Event Definitions, Training and Experience, and Clarifying Amendments	High	3150-AI63	NRC-2008-0175	PRM-35-20	01/16/2009	N/A	08/08/2013	07/21/2014	06/17/2016	02/09/2018
18	Rulemaking Actions	Mitigation of Beyond Design Basis Events (MBDBE)	High	3150-AJ49	NRC-2014-0240	PRM-50-96, PRM-50-97, PRM-50-98, PRM-50-100, PRM-50-101, PRM-50-102	10/18/2011	07/23/2013	04/30/2015	11/13/2015	12/15/2016	04/16/2018
19	Rulemaking Actions	NuScale Small Modular Reactor Design Certification	High	3150-AJ98	NRC-2017-0029	N/A	03/23/2017	06/23/2020	07/18/2020	09/03/2020	11/06/2020	01/08/2021
20	Rulemaking Actions	Performance-Based Emergency Core Cooling System Acceptance Criteria	High	3150-AH42	NRC-2008-0332	PRM-50-71, PRM-50-84	03/31/2003	07/31/2008	03/01/2012	03/24/2014	03/16/2016	04/05/2018
21	Rulemaking Actions	Regulatory Guide (RG) 1.84, Rev. 38; RG 1.147, Rev. 19; and RG 1.192, Rev. 3; Approval of American Society of Mechanical Engineers Code Cases	High	3150-AJ93	NRC-2017-0024	N/A	07/01/2014	N/A	03/02/2018	05/01/2018	02/04/2019	05/01/2019
22	Rulemaking Actions	Regulatory Guide (RG) 1.84, Rev. 39; and RG 1.147, Rev. 20; and 1.192, Rev. 4; Approval of American Society of Mechanical Engineers Code Cases	High	3150-AJ94	NRC-2017-0025	N/A	05/01/2016	N/A	02/28/2019	03/31/2019	02/28/2020	03/31/2020
23	Rulemaking Actions	Regulatory Improvements for Power Reactors Transitioning to	High	3150-AJ59	NRC-2015-0070	N/A	12/30/2014	11/27/2017	05/07/2018	11/07/2018	10/07/2019	02/07/2020

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
		Decommissioning										
24	Rulemaking Actions	Revision of Fee Schedules: Fee Recovery for FY 2020	High	3150-AK11	NRC-2017-0228	N/A	11/13/2017	N/A	01/13/2020	01/31/2020	05/12/2020	05/29/2020
25	Rulemaking Actions	Revision of Fee Schedules: Fee Recovery for FY 2018	High	3150-AJ95	NRC-2017-0026	N/A	10/19/2017	N/A	01/12/2018	01/30/2018	05/12/2018	05/30/2018
26	Rulemaking Actions	Revision of Fee Schedules: Fee Recovery for FY 2019	High	3150-AJ99	NRC-2017-0032	N/A	10/19/2018	N/A	01/12/2019	01/30/2019	05/12/2019	05/30/2019
27	Rulemaking Actions	U.S. Advanced Boiling Water Reactor (US-ABWR) Design Certification Renewal	High	3150-AK04	NRC-2017-0090	N/A	03/30/2017	12/01/2017	11/01/2017	12/01/2017	07/01/2018	08/01/2018
28	Rulemaking Actions	U.S. Advanced Pressurized Water Reactor (US-APWR) Design Certification	High	3150-AI83	NRC-2010-0133	N/A	02/29/2008	N/A	N/A	N/A	N/A	N/A
29	Rulemaking Actions	10 CFR Part 110, Export and Import of Nuclear Equipment and Material; Updates and Clarifications	Medium	3150-AJ45	NRC-2014-0201	N/A	09/01/2014	N/A	03/01/2018	05/01/2018	03/01/2019	05/01/2019
30	Rulemaking Actions	Access Authorization and Fitness-for-Duty Determinations	Medium	3150-AJ79	NRC-2016-0145	N/A	06/06/2016	02/04/2019	09/18/2019	12/31/2019	10/30/2020	04/30/2021
31	Rulemaking Actions	Adjustment of Civil Penalties for Inflation for FY 2019	Medium	3150-AK02	NRC-2017-0088	N/A	11/15/2018	N/A	N/A	N/A	12/15/2018	01/15/2019
32	Rulemaking Actions	Amendments to Material Control and Accounting Regulations	Medium	3150-AI61	NRC-2009-0096	N/A	02/05/2009	N/A	09/30/2013	11/08/2013	06/27/2018	12/14/2018
33	Rulemaking Actions	Cyber Security for Byproduct Material Licensees	Medium	3150-AJ56	NRC-2015-0019	N/A	N/A	03/30/2018	03/30/2019	09/30/2019	03/30/2020	09/30/2020
34	Rulemaking Actions	Decommissioning Financial Assurance for Germanium-68/Gallium-68 Generators	Medium	N/A	NRC-2017-0031	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
		Returned to Manufacturers or Distributors										
35	Rulemaking Actions	Emergency Preparedness Requirements for Small Modular Reactors and Other New Technologies	Medium	3150-AJ68	NRC-2015-0225	N/A	06/22/2016	11/15/2017	10/12/2018	01/11/2019	02/14/2020	08/14/2020
36	Rulemaking Actions	Financial Qualifications for Reactor Licensing	Medium	3150-AJ43	NRC-2014-0161	N/A	04/24/2014	N/A	04/30/2018	07/31/2018	01/04/2019	07/05/2019
37	Rulemaking Actions	Geologic Repository Operations Area (GROA) Fitness-For-Duty Requirements <sup>39</sup>	Medium	3150-AI38	NRC-2009-0089	N/A	N/A	09/17/2040	03/17/2042	09/17/2042	09/17/2043	03/17/2044
38	Rulemaking Actions	Geologic Repository Operations Area Security and Material Control and Accounting Requirements <sup>40</sup>	Medium	3150-AI06	NRC-2007-0670	N/A	N/A	03/16/2040	09/16/2041	03/16/2042	03/16/2043	09/16/2043
39	Rulemaking Actions	Groundwater Protection In Situ Leach Uranium Recovery Facilities	Medium	3150-AI40	NRC-2008-0421	N/A	03/24/2006	N/A	11/19/2018	05/20/2019	03/20/2020	09/20/2020
40	Rulemaking Actions	Incorporation of Lessons Learned From New Reactor Licensing Process (Parts 50 and 52 Licensing Process Alignment)	Medium	3150-AI66	NRC-2009-0196	N/A	09/22/2015	N/A	N/A	N/A	N/A	N/A

<sup>39</sup> This rulemaking activity is currently on hold due to the limited resources available for Yucca Mountain activities. Should Congressional appropriations become available, NRC would initiate the requisite rulemaking activities consistent with the resources and schedule for the Yucca Mountain licensing process. In addition, the NRC would update the dates reflected in this table, which are simply temporary placeholders.

<sup>40</sup> This rulemaking activity is currently on hold due to the limited resources available for Yucca Mountain activities. Should Congressional appropriations become available, NRC would initiate the requisite rulemaking activities consistent with the resources and schedule for the Yucca Mountain licensing process. In addition, the NRC would update the dates reflected in this table, which are simply temporary placeholders.

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
41	Rulemaking Actions	Items Containing Byproduct Material Incidental to Production (formerly Polymer (Polycarbonate or Polyester) Track Etched (PCTE) Membranes)	Medium	3150-AJ54	NRC-2015-0017	PRM-30-65	08/13/2012	03/30/2018	03/30/2019	09/30/2019	09/30/2020	03/30/2021
42	Rulemaking Actions	Miscellaneous Administrative Rulemaking [This is a placeholder is for one or more rules making administrative or corrective changes to the CFR]	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	Rulemaking Actions	Modified Small Quantities Protocol (SQP)	Medium	3150-AJ70	NRC-2015-0263	N/A	07/18/2016	N/A	N/A	N/A	03/31/2017	02/09/2018
44	Rulemaking Actions	Non-power Production or Utilization Facility License Renewal	Medium	3150-AI96	NRC-2011-0087	N/A	08/26/2009	10/02/2012	04/07/2016	03/30/2017	09/21/2018	07/18/2019
45	Rulemaking Actions	Price Anderson Adjustment of Deferred Premiums for Inflation	Medium	3150-AK01	NRC-2017-0030	N/A	03/15/2017	N/A	N/A	N/A	11/16/2017	11/30/2018
46	Rulemaking Actions	Reactor Vessel Material Surveillance Program Requirements (Appendix H)	Medium	3150-AK07	NRC-2017-0151	N/A	08/08/2014	10/17/2018	09/16/2019	12/16/2019	09/16/2020	12/15/2020
47	Rulemaking Actions	Receipts-Based Small Business Size Standards	Medium	3150-AJ51	NRC-2014-0264	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	Rulemaking Actions	Revisions to Reactor Vessel Material Surveillance Program Requirements	Medium	3150-AG98	NRC-2008-0582	PRM-50-69	08/08/2014	09/17/2018	09/16/2019	12/16/2019	09/16/2020	12/15/2020
49	Rulemaking Actions	Security Requirements for Advanced Reactors	Medium	N/A	NRC-2017-0227	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
50	Rulemaking Actions	Revisions to Transportation Safety Requirements and Compatibility with International Atomic Energy Agency Transportation Standards	Medium	3150-AJ85	NRC-2016-0179	N/A	08/19/2016	01/29/2019	06/30/2019	12/30/2019	06/30/2020	12/30/2020
51	Rulemaking Actions	Spent Fuel Cask Certificate of Compliance Format and Content	Medium	N/A	NRC-2014-0067	PRM-72-7	N/A	N/A	N/A	N/A	N/A	N/A
52	Rulemaking Actions	Spent Fuel Reprocessing	Medium	3150-AJ53	NRC-2015-0016	N/A	N/A	07/26/2021	07/26/2022	01/26/2023	07/26/2023	01/26/2024
53	Rulemaking Actions	U.S. Nuclear Regulatory Commission Acquisition Regulation (NRCAR) – 48 CFR Chap. 20	Medium	3150-AJ36	NRC-2014-0033	N/A	06/01/2014	N/A	06/01/2019	07/01/2019	10/01/2019	11/01/2019
54	Rulemaking Actions	Alternatives to the Use of Credit Ratings (formerly Dodd-Frank Act of 2010)	Low	3150-AJ92	NRC-2017-0021	N/A	09/01/2014	N/A	N/A	N/A	04/01/2020	08/01/2020
55	Rulemaking Actions	Price-Anderson Inflation Adjustment	Low	3150-AJ96	NRC-2017-0027	N/A	12/06/2016	N/A	N/A	N/A	06/15/2018	07/31/2018
56	Rulemaking Actions	Requirement to Submit Complete and Accurate Information	Low	N/A	NRC-2013-0077	PRM-50-107	N/A	N/A	N/A	N/A	N/A	N/A
57	Rulemaking Actions	Update to Fees for Search and Review of Agency Records by NRC Personnel	Low	3150-AK06	NRC-2017-0144	N/A	06/12/2017	N/A	11/30/2017	02/28/2018	11/30/2017	02/28/2018
58	Petition Actions	Agency Procedures for Responding to Adverse Court Decisions and Addressing Funding Shortfalls	N/A	N/A	NRC-2015-0264	PRM-2-15	N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
59	Petition Actions	Calculated Maximum Fuel Element Cladding Temperature	N/A	N/A	NRC-2009-0554	PRM-50-93	N/A	N/A	N/A	N/A	N/A	N/A
60	Petition Actions	Calculated Maximum Fuel Element Cladding Temperature	N/A	N/A	NRC-2009-0554	PRM-50-95	N/A	N/A	N/A	N/A	N/A	N/A
61	Petition Actions	Determining Which Structures, Systems, and Components and Functions are Important to Safety	N/A	N/A	NRC-2015-0213	PRM-50-112	N/A	N/A	N/A	N/A	N/A	N/A
62	Petition Actions	Enhancing Reactor Safety	N/A	N/A	NRC-2011-0189	PRM-50-99	N/A	N/A	N/A	N/A	N/A	N/A
63	Petition Actions	Erik Erb – Minimum Day Off Requirement for Security Officers	N/A	N/A	NRC-2010-0310	PRM-26-6	N/A	N/A	N/A	N/A	N/A	N/A
64	Petition Actions	Fire Protection Compensatory Measures	N/A	N/A	NRC-2017-0132	PRM-50-115	N/A	N/A	N/A	N/A	N/A	N/A
65	Petition Actions	Improved Identification Techniques Against Alkali-Silica Concrete Degradation at Nuclear Power Plants	N/A	N/A	NRC-2014-0257	PRM-50-109	N/A	N/A	N/A	N/A	N/A	N/A
66	Petition Actions	In-Core Temperature Monitoring at Nuclear Power Plants	N/A	N/A	NRC-2015-0124	PRM-50-111	N/A	N/A	N/A	N/A	N/A	N/A
67	Petition Actions	Individual Monitoring Devices for Industrial Radiographic Personnel	N/A	N/A	NRC-2016-0182	PRM-34-7	N/A	N/A	N/A	N/A	N/A	N/A
68	Petition Actions	Large Break Loss of Coolant Accident Redefinition	N/A	N/A	NRC-2002-0018	PRM-50-75	N/A	N/A	N/A	N/A	N/A	N/A
69	Petition Actions	Linear No-Threshold Model and Standards for Protection	N/A	N/A	NRC-2015-0057	PRM-20-28	N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX F: SUMMARY OF PLANNED RULEMAKING ACTIVITIES**

Item #	Category	Title	CPR Priority	RIN	Docket ID	Associated PRM Numbers	Rulemaking Initiation Date	Regulatory Basis Publication Date	Proposed Rule to Signature Authority	Proposed Rule Publication Date	Final Rule to Signature Authority	Final Rule Publication Date
		against Radiation										
70	Petition Actions	Linear No-Threshold Model and Standards for Protection against Radiation	N/A	N/A	NRC-2015-0057	PRM-20-29	N/A	N/A	N/A	N/A	N/A	N/A
71	Petition Actions	Linear No-Threshold Model and Standards for Protection against Radiation	N/A	N/A	NRC-2015-0057	PRM-20-30	N/A	N/A	N/A	N/A	N/A	N/A
72	Petition Actions	Measurement and Control of Combustible Gas Generation and Dispersal	N/A	N/A	NRC-2011-0189	PRM-50-103	N/A	N/A	N/A	N/A	N/A	N/A
73	Petition Actions	Naturally-Occurring and Accelerator-Produced Radioactive Materials	N/A	N/A	NRC-2017-0159	PRM-30-66	N/A	N/A	N/A	N/A	N/A	N/A
74	Petition Actions	Nuclear Energy Institute – Fitness-for-Duty Programs	N/A	N/A	NRC-2010-0304	PRM-26-5	N/A	N/A	N/A	N/A	N/A	N/A
75	Petition Actions	Power Reactors in Extended Shutdowns	N/A	N/A	NRC-2016-0204	PRM-50-114	N/A	N/A	N/A	N/A	N/A	N/A
76	Petition Actions	Professional Reactor Operator Society - Fitness-for-Duty Programs	N/A	N/A	NRC-2009-0482	PRM-26-3	N/A	N/A	N/A	N/A	N/A	N/A
77	Petition Actions	Protection of Digital Computer and Communication Systems and Networks	N/A	N/A	NRC-2014-0165	PRM-73-18	N/A	N/A	N/A	N/A	N/A	N/A
78	Petition Actions	Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Reactors	N/A	N/A	NRC-2015-0028	PRM-50-110	N/A	N/A	N/A	N/A	N/A	N/A



**APPENDIX G: OBLIGATIONS BY CONTROL POINT**

The table below provides the status of the NRC’s budget allowance and execution data by control points as of the end of fiscal year (FY) 2017 and the available prior year carryover for allocation.

**APPENDIX G: OBLIGATIONS BY CONTROL POINT**

**Nuclear Regulatory Commission  
Monthly Congressional Status Report  
September 30, 2017**  
(Dollars in Thousands)

Control Points	Current Year Budget										
	FY 2017 Explanatory Statement		Reprogramming	Current Plan	Carryover Allocated <sup>4</sup>	Total	Current Year Obligations	Current Year Expenditures	Current Year Unobligated	Current Year Unliquidated	Prior Year Unliquidated
	Enacted	Carryover									
Nuclear Reactor Safety (excludes Advanced Reactor Regulatory Infrastructure Activities) <sup>1</sup>	\$ 447,089	\$ 10,211	\$ 457,300	\$ 0	\$ 457,300	\$ 459,379	\$ 394,065	\$ 2,987	\$ 62,327	\$ 29,770	
Advanced Reactor Regulatory Infrastructure Activities	5,000	0	5,000	0	5,000	5,000	1,300	1,071	2,629	0	
Nuclear Materials and Waste Safety <sup>1</sup>	111,189	2,511	113,700	105	113,805	114,178	92,863	691	20,688	2,473	
Decommissioning and Low-Level Waste <sup>1</sup>	26,599	601	27,200	-105	27,095	28,311	21,164	1,544	5,603	1,092	
Corporate Support (excludes Office of the Commission) <sup>1,2</sup>	295,623	6,677	302,300	0	302,300	303,583	189,973	1,259	112,351	35,452	
Office of the Commission <sup>3</sup>	4,500	3,000	7,500	0	7,500	7,954	4,248	3,679	28	31	
Integrated University Program <sup>1</sup>	\$ 15,000	\$ 0	\$ 15,000	\$ 0	\$ 15,000	\$ 15,016	\$ 126	\$ 16	\$ 14,874	\$ 28,907	
University Research and Development	10,000	0	10,000	0	10,000	10,015	67	15	9,933	19,954	
Nuclear Science & Engineering Grant Program	5,000	0	5,000	0	5,000	5,001	59	1	4,940	8,953	
<b>Control Points Total</b>	<b>\$ 905,000</b>	<b>\$ 23,000</b>	<b>\$ 928,000</b>	<b>\$ 0</b>	<b>\$ 928,000</b>	<b>\$ 933,422</b>	<b>\$ 703,739</b>	<b>\$ 11,183</b>	<b>\$ 218,500</b>	<b>\$ 97,725</b>	
<b>Programs</b>											
Nuclear Waste Fund	0	0	0	0	0	974	882	92	69	5	
Office of Inspector General	11,160	0	11,160	0	11,160	11,666	10,695	1,018	612	270	
OIG DNFSB	969	0	969	0	969	318	765	413	109	23	
<b>Total Agency</b>	<b>\$ 917,129</b>	<b>\$ 23,000</b>	<b>\$ 940,129</b>	<b>\$ 0</b>	<b>\$ 940,129</b>	<b>\$ 7,879</b>	<b>\$ 935,302</b>	<b>\$ 12,706</b>	<b>\$ 219,290</b>	<b>\$ 98,022</b>	

Funds Source	NRC's Prior Year Unobligated Funds by Fund Source			
	Beginning Balance	Year to Date Deobligations	Total Carryover Allocated	Available Carryover
Feebased	\$ 25,956	\$ 14,486	\$ 40,441	\$ 15,509
Special Purpose Funds	\$ 4,253	\$ 59	\$ 4,311	\$ 822
Office of the Commission	3,478	11	3,489	3,454
General Fund	587	0	587	587
Integrated University Program	95	47	142	126
Official Representation Fund	25	1	26	20
USAID	68	0	68	68
<b>Feebased &amp; Special Purpose Funds Subtotal</b>	<b>\$ 30,208</b>	<b>\$ 14,544</b>	<b>\$ 44,753</b>	<b>\$ 16,331</b>
Nuclear Waste Fund	1,382	32	1,414	974
Office of Inspector General	2,354	101	2,455	1,166
OIG DNFSB <sup>5</sup>	323	-2	320	318
<b>Total Agency</b>	<b>\$ 34,267</b>	<b>\$ 14,675</b>	<b>\$ 48,942</b>	<b>\$ 18,064</b>

Note: Numbers may not add due to rounding.

<sup>1</sup>The five control points as identified in the FY 2017 Explanatory Statement.

<sup>2</sup>Data Act Implementation, \$643K as identified in the FY 2017 Explanatory Statement, is part of the Corporate Support control point. The NRC has obligated and expended \$543K of these funds.

<sup>3</sup>The Office of the Commission's carryover of \$3,000K has been fully implemented with an additional \$454K. The NRC will obligate no more than a total of \$7,500K in FY 2017 for the Office of the Commission.

<sup>4</sup>This does not include the \$23 million of carryover that was authorized for use by the FY 2017 Explanatory Statement.

<sup>5</sup>Normal salaries and benefits adjustments made in prior years resulted in a negative balance in the "Year to Date Deobligations" column.

**APPENDIX H: REPORT ON DRUG TESTING**

The U.S. Congress and the U.S. Department of Health and Human Services (HHS) initially approved the NRC's Drug Testing Program in August 1988, and the agency subsequently updated the program in November 1997. The NRC revised the program again and received approval from HHS on August 23, 2007. The NRC's drug testing requirements for the nuclear industry (licensees), as imposed by agency regulations, are separate and distinct from this program and are not covered by this report. The NRC's Drug Testing Program, administered in accordance with Executive Order 12564, "Drug-Free Federal Workplace," dated September 15, 1986, includes random, applicant, voluntary, followup, reasonable suspicion, and accident-related drug testing. The NRC initiated testing for nonbargaining unit employees in November 1988, and in December 1990 for bargaining unit employees, after an agreement was negotiated with the National Treasury Employees Union. On August 25, 2008, the NRC expanded its testing program to include all NRC sensitive positions as testing designated; therefore, all employees became subject to random drug testing.

During fiscal year (FY) 2017, the NRC conducted approximately 2,078 tests of all types. There were five positive drug test results (two for marijuana, two for nonprescription opiates, and one for cocaine) for four individuals. Two of these individuals completed the required outpatient treatment programs and are currently participating in the agency's followup drug testing portion of the program. A third individual tested positive a second time and subsequently retired. The fourth person resigned.

The NRC also completed internal quality control reviews during FY 2017 to ensure that the agency continues to administer its Drug Testing Program in a fair, confidential, and effective manner.

The NRC's Drug Testing Program follows the principles and guidance contained in Executive Order 12564, Public Law 100-71, HHS guidelines, and Commission decisions.



## **APPENDIX I: GLOSSARY**

### **Actuals**

Obligations against budget authority for salaries and benefits, contract support, and travel. Obligations are legally binding agreements that will result in an outlay of funds.

### **Agency Support**

Agency support costs are located in executive, administrative, and other support offices such as the Office of the Commission, the Office of the Secretary, the Office of the Executive Director for Operations, the Offices of Congressional and Public Affairs, the Office of the Inspector General, the Office of Administration, the Office of the Chief Financial Officer, the Office of the Chief Information Officer, the Office of the Chief Human Capital Officer and the Office of Small Business and Civil Rights. These budgeted costs administer the corporate or shared efforts that more broadly support the activities of the agency. These activities also include information technology services, human capital services, financial management and administrative support.

### **Budget Authority**

Authority provided by law to incur financial obligations that will result in outlays. The NRC budget authority is provided by appropriations and reimbursable budget authority. References to budget authority in this Congressional Budget Justification are to appropriations.

### **Control Points**

Subdivisions of the NRC's appropriations established by Congress to ensure that the NRC executes its budget in accordance with Congressional direction. These are identified at the agency's program level and/or a lower level within the NRC's budget structure. Congress identifies reprogramming funding thresholds for each control point.

### **Corporate Indirect**

Supervisory and administrative support for corporate activities. Budgeted within Corporate Support product lines.

### **Corporate Support**

A set of centrally managed overhead activities that are necessary for the NRC staff and agency programs to achieve mission goals efficiently and effectively. Includes both general administrative overhead—e.g., facilities management, information technology, financial management, and human resource management—and agency policy support, including the Commission.

### **Fiscal Year 2018 Annualized Continuing Resolution**

Resource levels provided in NRC's FY 2017 Enacted Budget, adjusted to reflect an across-the-board reduction to maintain adherence to the discretionary spending limitations provided by the Budget Control Act of 2011, as amended.

### **Full Cost**

Total resources used to produce outputs under a Major Program Business Line. The full cost of a business line is the sum of (1) the cost of direct resources within the business line, (2) the cost of mission indirect resources within the business line, and (3) a proportional share of Corporate Support costs budgeted at the agency level.

### **Full-time Equivalent**

Basic measure of the levels of employment used in the budget. It is the total number of hours worked (or to be worked) divided by the number of compensable hours applicable to each fiscal year.

### **Generic Homeland Security**

Security-related activities related to intergovernmental coordination and communication regarding intelligence, threat demographic data, and non-IT information security activities. Activities also includes coordination and exchange of information between local, state, and federal agencies on security-related matters, as well as international activities involving security matters reviews.

### **Major Program**

An organized set of functions, processes and activities directed toward execution of a major element of the agency's mission and the achievement of related strategic goals and objectives. The NRC's two major programs are Nuclear Reactor Safety and Nuclear Materials and Waste Safety.

### **Major Program Business Line (Business Line)**

A class of functions, processes and activities that implement a significant component of a major program. The Nuclear Reactor Safety Program is implemented through the Operating Reactors and New Reactors Business Lines. The Nuclear Materials and Waste Safety Program is implemented through the Fuel Facilities, Nuclear Materials Users, Decommissioning and Low-Level Waste, and Spent Fuel Storage and Transportation Business Lines.

### **Mission Direct**

Resources allocated to perform core work activities committed to fulfilling the agency mission of protecting the public health and safety, promoting the common defense and security, and protecting the environment. Resources for core work activities are budgeted within the Major Program Business Lines, under the direct product lines—e.g., Licensing, Oversight, Event Response, Rulemaking, and Research.

### **Mission Indirect**

Supervisory and nonsupervisory support and mission travel and training that support the core mission-direct activities performed by the program offices and the regions. Mission indirect resources are budgeted within Major Program Business Lines in the Travel, Training, and Mission Support and Supervisors Product Lines.

**Mission Support**

Supervisory and nonsupervisory support for the core work activities of the program offices and the regions. Budgeted within the Major Program Business Lines in the Mission Support and Supervisors Product Line.

**Net Budget Authority (Net Appropriated)**

NRC's remaining budget authority after its appropriations are offset by fees collected, and represents the portion of appropriations that are funded from the general fund of the U.S. Treasury and the Nuclear Waste Fund.

**Non-Fee Items (Not Fee-Billable)**

NRC activities which are funded from appropriations excluded from fee recovery by 42 USC 2214 (Section 6101 of the Omnibus Budget Reconciliation Act of 1990 [OBRA-90]) and NRC appropriations language.

**Product Line**

Categories of agency work functions performed under a business line.

**Reimbursable Budget Authority**

Budget authority provided by funds from other Federal agencies and receipts from non-Federal organizations. This authority represents additional funding in excess of NRC's directly appropriated funds.

**Salaries and Benefits**

Resources budgeted for the cost of government personnel. Includes salaries and wages; awards; the agency share of retirement contributions, benefits, and payroll taxes; and other personnel costs such as incentive and terminal leave payments.



**APPENDIX J: ACRONYM LIST**

**10 CFR:** Title 10 of the *Code of Federal Regulations*

**ABWR:** Advanced Boiling-Water Reactor

**AEC:** Atomic Energy Commission

**AIT:** Augmented Inspection Team

**AO:** Abnormal Occurrence

**APWR:** Advanced-Pressurized Water Reactor

**APR:** Advanced Power Reactor

**ASP:** Accident Sequence Precursor

**CBJ:** Congressional Budget Justification

**COE:** Center of Expertise

**COL:** Combined License

**CR:** Continuing Resolution

**CRCPD:** Conference of Radiation Control Program Directors

**DC:** Design Certification

**DNFSB:** Defense Nuclear Facilities Safety Board

**DOE:** U.S. Department of Energy

**DOJ:** U.S. Department of Justice

**EDO:** Executive Director for Operations

**EPR:** Evolutionary Power Reactor

**ESP:** Early Site Permit

**FEVS:** Federal Employee Viewpoint Survey

**FISMA:** Federal Information Security Management Act

**FITARA:** Federal Information Technology Acquisition Reform Act

**FTE:** Full-Time Equivalent

## **APPENDIX J: ACRONYM LIST**

---

**FY:** Fiscal Year

**GPRA:** Government Performance and Results Act of 1993

**HHS:** U.S. Department of Human and Health Services

**HMC:** Homestake Mining Company

**HQ:** Headquarters

**IAEA:** International Atomic Energy Agency

**IM:** Information Management

**IMC:** Inspection Manual Chapter

**IMPEP:** Integrated Materials Performance Evaluation Program

**IOAA:** Independent Offices Appropriation Act of 1952

**ISFSI:** Interim Spent Fuel Storage Installation

**ISG:** Interim Staff Guidance

**ISR:** In situ recovery

**IT:** Information Technology

**ITAAC:** Inspections, Tests, Analyses, and Acceptance Criteria

**LER:** Licensee Event Report

**LLW:** Low-Level Waste

**LWR:** Light-Water Reactor

**LLWR:** Large Light-Water Reactor

**MBDBE:** Mitigation of Beyond-Design-Basis Events

**NMED:** Nuclear Materials Event Database

**NMIP:** Nuclear Materials Information Program

**NRC:** Nuclear Regulatory Commission

**NSTS:** National Source Tracking System

**NTTF:** Near-Tear Task Force

**OBRA-90:** Omnibus Budget Reconciliation Act of 1990

**OIG:** Office of the Inspector General

**OMB:** Office of Management and Budget

**OPM:** Office of Personnel Management

**PL:** Public Law

**RIS:** Regulatory Issue Summary

**ROP:** Reactor Oversight Process

**S&E:** Salaries and Expenses

**SLR:** Subsequent License Renewal

**SMR:** Small Module Reactor

**SNF:** Spent Nuclear Fuel

**SNM:** Special Nuclear Material

**STAQS:** Strategic Acquisition System

**TVA:** Tennessee Valley Authority

**UAMPS:** Utah Associated Municipal Power System

**U.S.:** United States

**USC:** United States Code

**WBL:** Web-Based Licensing

**WIR:** Waste Incidental to Reprocessing



<b>NRC FORM 335</b> (12-2010) NRCMD 3.7	<b>U.S. NUCLEAR REGULATORY COMMISSION</b>	<b>1. REPORT NUMBER</b> (Assigned by NRC, Add Vol., Supp., Rev., and Addendum Numbers, if any.)  NUREG-1100, Volume 34, Rev.1
<b>BIBLIOGRAPHIC DATA SHEET</b> <i>(See instructions on the reverse)</i>		
<b>2. TITLE AND SUBTITLE</b> United States Nuclear Regulatory Commission Congressional Budget Justification Fiscal Year 2019	<b>3. DATE REPORT PUBLISHED</b>	
	MONTH February	YEAR 2018
	<b>4. FIN OR GRANT NUMBER</b>	
<b>5. AUTHOR(S)</b> Linda Yee, et. al.	<b>6. TYPE OF REPORT</b>	
	<b>7. PERIOD COVERED (Inclusive Dates)</b>	
<b>8. PERFORMING ORGANIZATION - NAME AND ADDRESS</b> (If NRC, provide Division, Office or Region, U. S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.) Division of Planning and Budget Office of the Chief Financial Officer U.S. Nuclear Regulatory Commission Washington, DC 20555		
<b>9. SPONSORING ORGANIZATION - NAME AND ADDRESS</b> (If NRC, type "Same as above", if contractor, provide NRC Division, Office or Region, U. S. Nuclear Regulatory Commission, and mailing address.)		
<b>10. SUPPLEMENTARY NOTES</b>		
<b>11. ABSTRACT (200 words or less)</b> The U.S. Nuclear Regulatory Commission's performance plan sets annual goals with measurable target levels of performance and is issued each year with the agency's Congressional Budget Justification.		
<b>12. KEY WORDS/DESCRIPTORS</b> (List words or phrases that will assist researchers in locating the report.) FY 2019 CBJ FY 2019 Green Book FY 2019 Congressional Budget Justification	<b>13. AVAILABILITY STATEMENT</b> unlimited	
	<b>14. SECURITY CLASSIFICATION</b> <i>(This Page)</i> unclassified	
	<i>(This Report)</i> unclassified	
	<b>15. NUMBER OF PAGES</b>	
	<b>16. PRICE</b>	



**United States Nuclear Regulatory Commission  
Office of the Chief Financial Officer**

**NUREG-1100, Volume 34, Rev. 1  
February 2018**



**NURREG-1100, Vol. 34, Rev. 1 CONGRESSIONAL BUDGET JUSTIFICATION FISCAL YEAR 2019 February 2018**