

# FY 2015 Congressional Budget Justification

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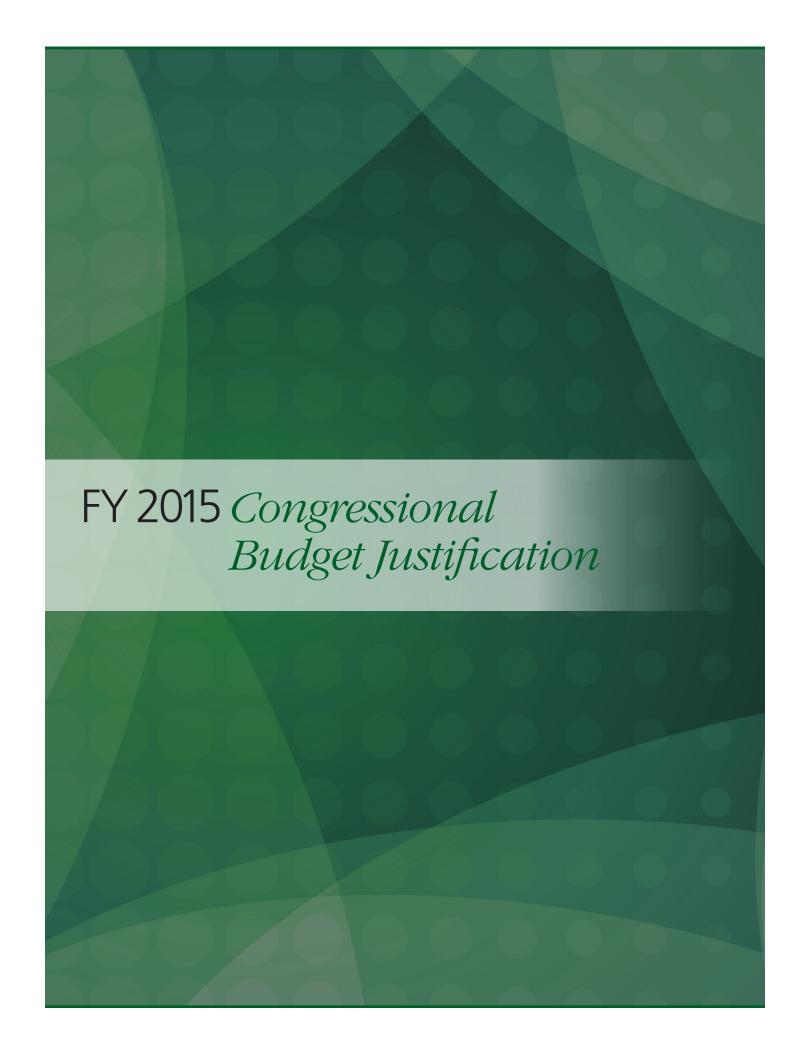
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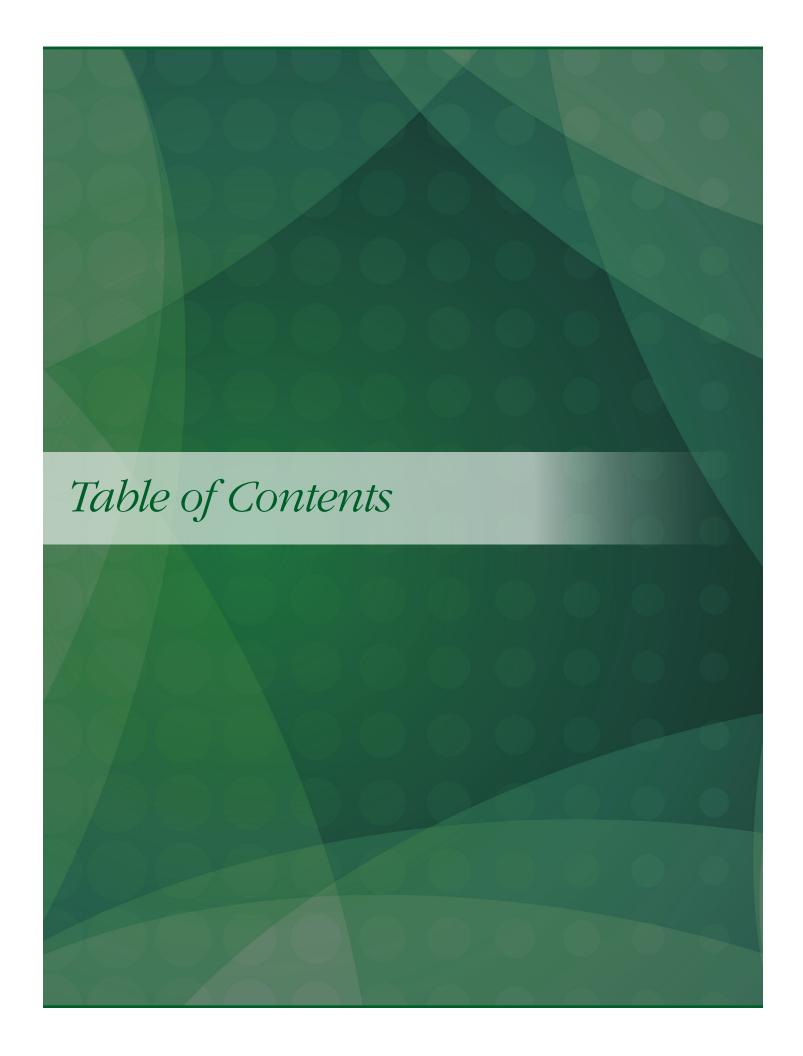
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#### **EXECUTIVE SUMMARY**

The Mission of the U.S. Nuclear Regulatory Commission:

License and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure the adequate protection of 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 to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment. The NRC has formulated its fiscal year (FY) 2015 Congressional Budget Justification to support the agency's Safety and Security strategic goals and objectives.

The NRC continues to perform the critical functions of ensuring the safe and secure use of byproduct, source, and special nuclear materials in the United States and protecting both the public and workers from radiation hazards that could result from the use of radioactive materials. The NRC's principal regulatory functions are to establish regulatory requirements and conduct confirmatory research to support requirements; issue licenses to facility owners, possessors, and users of nuclear materials; oversee these licensees to ensure that they are in compliance with NRC requirements and operate safely and securely; and respond to emergencies involving regulated activities.

The NRC regulates the civilian use of nuclear materials, from the processing of the uranium ore to the disposal of radioactive waste. This includes all of the steps and the facilities involved in the nuclear fuel cycle, including extraction of the uranium from ore. conversion of the uranium into a form suitable for enrichment. enrichment of the uranium to a level and type suitable for nuclear fuel, and fabrication of uranium into fuel assemblies for use in reactors. The



fuel assemblies are used in nuclear reactors, and when they are no longer efficient for reactor operations, are removed from the reactors and stored as waste. The NRC also participates in international work that is integral to the agency's mandate to protect public safety and security. The NRC will continue licensing and oversight activities for 100 operating nuclear power plants. Licensing activities will include the reviews of 6 power uprate applications, 11 applications for

renewed operating licenses, and approximately 15 license amendment requests for approximately 25 reactors that will be transitioning to a risk-informed, performance-based set of requirements contained in National Fire Protection Association (NFPA) Standard 805. In FY 2015, Fukushima lessons-learned activities will continue to progress, including seismic and flooding reevaluations.

The NRC has received 18 new reactor combined operating license (COL) applications from the nuclear power industry, and is currently reviewing the nine applications that remain active (two applications were issued licenses, six applicants requested that their reviews be suspended, and one application was withdrawn). The NRC expects to continue reviews on the active COL applications during FY 2015. The NRC, and the 37 Agreement State Programs it oversees, also ensures the safe and secure use of radiation sources by over 21,000 medical, academic, and individual organizations. Resources will fund environmental reviews and safety reviews, which include emergency preparedness technical reviews, security plan technical reviews, security-related assessments, and financial analyses of COL applicants. Licensing also provides the resources to support licensing-related legal representation, independent advice, adjudicatory reviews, information technology required to support licensing activities, an operator licensing system, scheduler support, and the regulatory infrastructure for licensing activities.

The NRC ensures safety and security by licensing and overseeing nuclear waste and spent fuel storage facilities, certifying storage and transportation containers, and responding to events, as well as through decontamination and decommissioning activities. Additionally, security plans, emergency preparedness, and security testing are a major part of the licensing, oversight, and other regulatory activities that provide high assurance of physical security for nuclear facilities and materials. The NRC further enhances its regulatory program through coordination and cooperation with other Federal agencies, States, and international organizations and governments.

# OVERVIEW OF THE FY 2015 NRC CONGRESSIONAL BUDGET JUSTIFICATION

The NRC's FY 2015 Congressional Budget Justification provides the necessary resources for the Nuclear Reactor Safety and Nuclear Materials and Waste Safety Programs to carry out the agency's mission and achieve its strategic goals and desired outcomes for the American public. The NRC's proposed FY 2015 budget is \$1,059.5 million, with 3,895.9 full-time equivalents (FTE), including the Office of the Inspector General (OIG). The budget request represents an increase of \$3.6 million, including 65.1 FTE, when compared with the FY 2014 enacted budget.

The OIG's component of the FY 2015 proposed budget is \$12.1 million, and includes resources to carry out the Inspector General's mission to independently and objectively conduct audits and investigations to ensure the efficiency and integrity of programs and operations and to promote cost-effective management of the NRC and the Defense Nuclear Facilities Safety Board.

Under the provisions of the Omnibus Budget Reconciliation Act of 1990, as amended, the NRC's FY 2015 budget provides for 90 percent fee recovery, less the amounts appropriated for (1) Waste Incidental to Reprocessing Activities under Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 and (2) generic homeland security activities.

Accordingly, \$935.2 million of the FY 2015 budget will be recovered from fees assessed to NRC licensees. This will result in a net appropriation of \$124.2 million, which is a decrease of \$1 million in net appropriations when compared with the FY 2014 enacted budget. In accordance with the requirements defined in Section 51.2, "Requirements for Program Justification," of Office of Management and Budget (OMB) Circular A-11, "Requirements for Program Justification," the NRC is providing the full cost of its programs.

Total NRC Budget Authority by Appropriation (Dollars in Millions)						
	FY 2014 Enacted	FY 2015 Request	Delta FY 2015 – FY 2014			
NRC Appropriations	\$M	\$M	\$M			
Salaries & Expenses (S&E)						
Budget Authority	1,043.9	1,047.4	3.5			
Offsetting Fees	920.7	925.1	4.5			
Net Appropriated S&E	123.3	122.3	(1.0)			
Office of the Inspector General						
Budget Authority	12.0	12.1	0.1			
Offsetting Fees	10.1	10.1	0.1			
Net Appropriated OIG	2.0	2.0	0.0			
Total NRC (\$M)						
Budget Authority	1,055.9	1,059.5	3.6			
Offsetting Fees	930.7	935.2	4.6			
Total Net Appropriated	\$125.2	\$124.2	(\$1.0)			

Numbers may not add due to rounding.

Budget Authority and Full-Time Equivalents							
		2014 cted		2015 uest		lta - FY 2014	
<b>Major Programs</b>	\$M	FTE	\$M	FTE	\$M	FTE	
Operating Reactors	590.1	2,140.6	577.3	2,112.3	(12.8)	(28.3)	
New Reactors	221.3	767.9	237.9	846.2	\$16.5	78.2	
Nuclear Reactor Safety Subtotal	\$811.4	2,908.5	\$815.2	2,958.4	\$3.8	49.9	
Fuel Facilities	54.9	209.3	61.1	237.9	6.2	28.6	
Nuclear Materials Users	90.2	324.8	86.5	315.2	(3.7)	(9.6)	
Spent Fuel Storage and Transportation	47.6	166.1	45.3	163.0	(2.3)	(3.1)	
Decommissioning and Low-Level Waste	39.8	143.2	39.3	144.2	(0.5)	1.0	
Nuclear Materials and Waste Safety Subtotal	\$232.5	843.5	\$232.2	860.4	(\$0.3)	16.9	
Inspector General	\$12.0	63.0	12.1	63.0	\$0.1	0.0	
Subtotal	\$1055.9	3,815.0	\$1,059.5	3,881.8	\$3.6	66.8	
Reimbursable FTE	0.0	15.8	0.0	14.1	0.0	(1.7)	
Total	\$1055.9	3,830.8	\$1,059.5	3,895.9	\$3.6	65.1	

Numbers may not add due to rounding.

The Nuclear Reactor Safety Program increases by \$3.8 million, including an increase of 49.9 FTE, while the Nuclear Materials and Waste Safety Program decreases by \$0.3 million, but has an increase of 16.9 FTE, when the FY 2015 request is compared with the FY 2014 enacted budget. Collectively, the Nuclear Reactor Safety and Nuclear Materials and Waste Safety Programs have an overall funding increase of \$3.5 million, including an increase of 66.8 FTE, when compared to the FY 2014 enacted budget.

The NRC's FY 2015 budget request includes a 1.0 percent provisional estimate of the pay raise for January 2015 that is consistent with the guidance in OMB Circular A-11.

The Commission's FY 2014–FY 2018 Strategic Plan—and its associated performance targets—remain under development. The Commission will provide at a later date a supplement to this budget request; it will include final targets along with our updated performance goals and indicators.

#### **NUCLEAR REACTOR SAFETY**

Nuclear Reactor Safety (Dollars in Millions)							
FY 2014 FY 2015 Enacted Request				_	elta – FY 2014		
<b>Business Line</b>	\$M	FTE	\$M	FTE	\$M	FTE	
Operating Reactors	590.1	2,140.6	577.3	2,112.3	(12.8)	(28.3)	
New Reactors	221.3	767.9	237.9	846.2	16.5	78.2	
Total	\$811.4	2,908.5	\$815.2	2,958.4	\$3.8	49.9	

Numbers may not add due to rounding.

The Nuclear Reactor Safety Program encompasses NRC efforts to license, regulate, and oversee civilian nuclear power, research, and test reactors in a manner that adequately protects public health and safety and the environment. This program also provides high assurance of the physical security of facilities and protection against radiological sabotage. This program contributes to the NRC's Safety and Security goals through the activities of the Operating Reactors and New Reactors Business Lines that regulate existing and new nuclear reactors to ensure their safe operation and physical security.

Overall resources requested in the FY 2015 budget for the Nuclear Reactor Safety Program are \$815.2 million, including 2,958.4 FTE. This funding level represents an overall funding increase of \$3.8 million, including an increase of 49.9 FTE, when compared with the FY 2014 enacted budget.

An explanation of the changes between the FY 2015 and FY 2014 enacted budget levels is provided in the program chapters of this budget for each business line.

#### **OPERATING REACTORS**

The Operating Reactors Business Line supports the licensing, oversight, rulemaking, international activities, research, generic homeland security, and event response associated with the safe and secure operation of 100 civilian nuclear power reactors and 31 Research and Test Reactors (RTRs). The number of operating reactors decreased by the four (Kewanee, San Onofre Units 2 and 3, and Crystal River) that have submitted letters notifying the NRC that they have permanently ceased operations. It also accounts for the announced closure of Vermont Yankee in October 2014, as well as the start of operation at Watts Bar 2 in FY 2015 if that is authorized by NRC.

The FY 2015 budget request for Operating Reactors is \$577.3 million, including 2,112.3 FTE. This represents an overall funding decrease of \$12.8 million, including 28.3 FTE, when compared with the FY 2014 enacted budget. The major activities that the requested resources will support include:



Figure 1. U.S. Operating Commercial Nuclear Power Reactors

- Continuing licensing activities for 100 power reactors. The NRC anticipates that the licensing workload will include completing 900 licensing actions (100 of which are Fukushima-related), including the review of approximately 6 power uprates and approximately 15 ongoing reviews of compliance with National Fire Protection Association (NFPA) 805 for the approximately 25 reactors that will be transitioning to a risk-informed, performance-based set of requirements.
- Continuing Fukushima lessons-learned activities, including seismic and flooding reevaluations.
- Licensee implementation and staff closeout reviews and inspections of mitigating strategies (MS) and enhanced spent fuel pool instrumentation orders will be undergoing licensee implementation and the staff will be performing closeout reviews and inspections. For the severe accident capable hardened vents order, the staff will be completing the safety evaluations for the licensee's Phase 1 integrated plans and monitoring licensee implementation. For the emergency preparedness activities, closeout and inspection efforts, materially linked with the MS order, will take place 4 months before the closeout of and inspection for the MS order.

- Continuing reviews for 11 license renewal applications (19 units at 12 sites) for operating reactors.
- Continuous oversight of plants through the NRC's Reactor Oversight Process to verify that the 100 currently licensed operating nuclear power reactors continue to operate safely.
- Review of 18 high-priority rulemakings and three medium-priority rulemaking activities directed by the Commission, including policy development activities related to the NRC regulatory framework after the Fukushima Event.
- Research to address recommendations from lessons-learned evaluation of the Fukushima accident, fire safety, digital and electrical systems, materials degradation, reactor safety code development and analysis, radiation protection, probabilistic risk assessment, and evaluation of hazards from natural events.
- Ensuring that the NRC headquarters Operations Center is staffed around the clock and able to collect and disseminate event response information and coordinate NRC response, as is consistent with the NRC's responsibilities for events involving NRC-licensed material under the National Response Framework.

#### **NEW REACTORS**

The New Reactors Business Line supports the licensing, oversight, rulemaking, international activities, and research associated with the safe and secure development of new power reactors from design, site approval, and construction to operational status. The FY 2015 budget request for New Reactors is \$237.9 million, including 846.2 FTE. This represents an overall funding increase of \$16.5 million, including 78.2 FTE, when compared with the FY 2014 enacted budget. The major activities that the requested resources will support include:

- Reviews of the nine COL applications that remain active (two applications were issued licenses, six applicants requested that their reviews be suspended, and one application was withdrawn).
- Ongoing review of four DCs (Babcock & Wilcox mPower, U.S. Evolutionary Power Reactor, U.S. Advanced Pressurized Water Reactor (APWR)), and Korea Hydro and Nuclear Power (KHNP) KHNP/APR-1400), continue ongoing review of one DC renewal (Advanced Boiling Water Reactor (ABWR)), continuing pre-application activities for two projected DC applicants (Westinghouse and Holtec), and initiating the review of one new DC (NuScale).
- Construction inspection activities to support inspection of the reactors under construction (Vogtle Units 3 & 4, Summer Units 2 & 3, and Watts Bar Unit 2).
- Thirty vendor inspections to ensure integrity of the supply chain, which would be consistent with the expected increase in the number of suppliers and sites under active construction.

#### **NUCLEAR MATERIALS AND WASTE SAFETY**

Nuclear Materials and Waste Safety (Dollars in Millions)						
FY 2014 FY 2015 De Enacted Request FY 2015 -						
<b>Business Line</b>	\$M	FTE	\$M	FTE	\$M	FTE
Fuel Facilities	54.9	209.3	61.1	237.9	6.2	28.6
Nuclear Materials Users	90.2	324.8	86.5	315.2	(3.7)	(9.6)
Spent Fuel Storage and Transportation	47.6	166.1	45.3	163.0	(2.3)	(3.1)
Decommissioning and Low-Level Waste	39.8	143.2	39.3	144.2	(0.5)	1.0
Total	\$232.5	843.5	\$232.2	860.4	(\$0.3)	16.9

Numbers may not add due to rounding.

The Nuclear Materials and Waste Safety Program reflect the NRC's effort to license, regulate, and oversee nuclear materials in a manner that adequately protects the public health and safety and the environment. This program also provides high assurance of physical security of the most risk-significant 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 packaging; decontamination and decommissioning of facilities; and low-level and high-level radioactive waste. The program contributes to the NRC's Safety and Security goals through the activities of the Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, and Decommissioning and Low-Level Waste Business Lines.

Overall resources requested in the FY 2015 budget for the Nuclear Materials and Waste Safety Program is \$232.2 million, including 860.4 FTE. This funding level represents an overall funding decrease of \$0.3 million, but an increase of 16.9 FTE, when compared with the FY 2014 enacted budget.

An explanation of the changes between the FY 2015 and FY 2014 enacted budget levels is provided in the program chapters of this budget for each business line.

#### **FUEL FACILITIES**

The Fuel Facilities Business Line supports licensing, oversight, rulemaking, international activities, research, generic homeland security, and event response associated with the safe and secure operation of various operating and new fuel facilities such as conversion, enrichment, and fuel fabrication facilities, as well as nuclear fuel research and pilot facilities. The FY 2015 budget request for Fuel Facilities is \$61.1 million, including 237.9 FTE. This represents an overall funding increase of \$6.2 million, including 28.6 FTE, when compared with the FY 2014 enacted budget. Major activities that the requested resources will support include:

- Licensing actions for conversion/deconversion, enrichment, fuel fabrication and greater than critical mass facilities...
- Licensing support and reviews, including support to assist in the review of environmental reports and preparation of environmental impact statements, material control and accounting (MC&A), safeguards, and criticality safety evaluations.
- Emergency preparedness licensing reviews for operating fuel cycle facilities.
- Environmental reviews for fuel cycle facility license applications, license renewals, amendments, and pre-application activities.
- Regulatory activities related to agency follow-up of the Fukushima event, including actions from the Fukushima Near-Term Task Force and inspections conducted under Temporary Instruction 2600/015, "Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities."
- Rulemaking in security-related areas, including enhanced security at fuel cycle facilities (CAT I and III), material categorization, the 10 Code of Federal Regulations (CFR) Part 26 Fitness for Duty Program (FFD), and fingerprinting for Safeguards Information access.
- Application of the International Atomic Energy Agency) safeguards to fuel cycle facilities, international coordination, and assistance on next generation safeguards designs.

#### **NUCLEAR MATERIALS USERS**

The Nuclear Materials Users Business Line supports the safe and secure possession, processing, handling, and use of nuclear materials (for the many and diverse uses of these materials) with associated licensing, oversight, rulemaking, international activities, research, generic homeland security, event response, and State, Tribal, and Federal Program activities. The FY 2015 budget request for Nuclear Materials Users is \$86.5 million, including 315.2 FTE. This represents an overall funding decrease of \$3.7 million, including 9.6 FTE, when compared with the FY 2014 enacted budget. The major activities that the requested resources will support include:

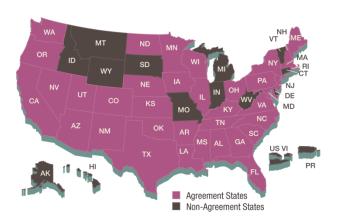


Figure 2. Agreement States

- Completion of approximately 2,000 materials licensing actions (new applications, amendments, renewals, and terminations).
- Completion of approximately 900 routine health and safety inspections,, reciprocity and reactive inspections, and a registration and follow-up inspection program for certain general licensees.
- Work on approximately 3 to 4 active materials waste safety rulemakings as well as
  continued interactive liaison with industry and professional societies to develop new
  codes and consensus standards and to address petitions for rulemaking submitted to the
  agency.
- Reviews and decisions on import/export authorizations of nuclear components and radiological materials, Executive Branch Subsequent Arrangements and Proposed 810 Licenses, control and tracking of imports and exports of sources, and bilateral and multilateral activities initiated for the exchange of technical information for the safe handling, storage, transport, and disposal of nuclear waste.
- Support of the Generic Homeland Security portfolio, which has integrated the three systems that license and track sources and radioactive materials under one management mechanism.
- Support for the Agreement State program to conduct 10 to 12 Integrated Materials Performance Evaluation Program reviews to ensure that they are adequate to protect public health and safety and are compatible with NRC programs; conduct outreach to one potential new Agreement State and process new agreements; process 50 Agreement State incidents/events; participate in, and coordinate State participation in, regulatory development; coordinate, and fund State participation in, NRC training courses (including Agreement State training and travel funds); respond to State technical assistance requests; respond to and coordinate responses to allegations about Agreement State licensees or regulatory programs; interact with the Conference of Radiation Control Program Directors, Inc.and the Organization of Agreement States, Incand develop and maintain policies and procedures for the program. This activity includes the statutory requirement for the NRC to make a determination that all applicable standards and requirements have been met before an uranium milling license termination by the Agreement State and that alternate 11e.(2) standards are adequate before they are implemented by the Agreement State (1 or 2 cases per year).

#### **SPENT FUEL STORAGE AND TRANSPORTATION**

The Spent Fuel Storage and Transportation Business Line supports the licensing, oversight, rulemaking, international activities, research, and generic homeland security associated with the safe and secure storage and transportation of spent nuclear fuel and other radioactive materials. The FY 2015 budget request for Spent Fuel Storage and Transportation is \$45.3 million, including 163 FTE. This represents an overall funding decrease of \$2.3 million, including 3.1 FTE, when compared with the FY 2014 enacted budget. The major activities that the requested resources will support include:

- Review of approximately 65 radioactive material transportation package design applications and approximately 22 spent nuclear fuel (SNF), including initiating the review of the renewal of Certificate of Compliance storage applications to ensure the safe and secure storage of SNF.
- Renewal of the Prairie Island independent spent fuel storage installation (ISFSI) license and related environmental assessment support and legal advice and representation on SNF and radioactive material transportation matters.

- Completion of 16 regional and headquarters safety inspections of storage and transportation cask vendors, fabricators, and designers and of ISFSI pad construction. dry-run operations, initial loading operations, and routine operations.
- Continued identification and implementation of near term improvements to the storage and transportation licensing program including a comprehensive review of licensing guidance and regulations.

#### **DECOMMISSIONING AND LOW-LEVEL WASTE**

The Decommissioning and Low-Level Waste Business Line supports the licensing, oversight, rulemaking, international activities, and research associated with the safe and secure operation of uranium recovery facilities, removal of nuclear facilities from service and reduction of residual radioactivity to a level that permits release of the property and termination of the NRC license, and disposition of low-level radioactive waste from all civilian sources. The FY 2015 budget request for Decommissioning and Low-Level Waste is \$39.3 million, including 144.2 FTE. This represents an overall funding decrease of \$0.5 million, including an increase of 1 FTE, when compared with the FY 2014 enacted budget. The major activities that the requested resources will support include:

- Licensing reviews for decommissioning 14 power and early demonstration reactors, 7 research and test reactors, 23 complex materials facilities, and 38 uranium recovery facilities. Resources also support licensing for up to 40 military Naturally Occurring and Accelerator-Produced Radioactive Materials (NARM) sites and depleted uranium sites.
- Eight to 10 environmental and safety reviews (hearings included) for uranium recovery licensing applications as well as licensing activities associated with 7 operating uranium recovery facilities.
- Oversight of decommissioning and uranium recovery inspections, Low-Level waste (LLW) program activities, and Waste Incidental to Reprocessing (WIR) activities at two U.S. Department of Energy sites.
- Research assistance on complex licensing cases, such as application of codes for decommissioning reviews and site reviews employing bio-remediation as the remediation process chosen for site cleanup at shallow sites with uranium contamination and in situ leach uranium recovery facilities.
- Continued maintenance of a framework of rules and guidance that promote compliance with safety principles and requirements, including development of a more risk informed approach for disposal of low level waste.

#### OFFICE OF THE INSPECTOR GENERAL

In accordance with the Inspector General Act of 1978, as amended, the OIG's mission is to (1) independently and objectively conduct and supervise audits and investigations related to NRC programs and operations (2) prevent and detect fraud, waste, and abuse and (3) promote economy, efficiency, and effectiveness in NRC programs and operations. The OIG carries out its mission through its Audits and Investigations Programs.

In addition, the Consolidated Appropriations Act, 2014 provided that notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized in 2014 and subsequent years to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the Inspector General Act of 1978 (5 U.S.C. App.) with respect to the Nuclear Regulatory Commission. The NRC OIG Strategic Plan features the following three goals which guide the activities of its Audits and Investigations Programs and generally align with the agency's mission:

#### **OIG STRATEGIC GOALS**

- Strengthen the NRC's efforts to protect public health and safety and the environment.
- Enhance the NRC's efforts to increase security in response to an evolving threat environment.
- Increase the economy, efficiency, and effectiveness with which the NRC manages and exercises stewardship over its resources.

Budget Authority by Program (Dollars in Millions)							
	FY 20 Enact		FY 20 Requ	_	Delt FY 2015 –	-	
Summary	\$M	FTE	\$M	FTE	\$M	FTE	
Program Support	1.410	0.0	1.410	0.0	0	0.0	
Program Salaries and Benefits	10.545	63.0	10.661	63.0	0.116	0.0	
Total	\$11.955	63.0	\$12.071	63.0	\$0.116	0.0	

Numbers may not add due to rounding.

OIG's proposed FY 2015 budget, which includes funding for the Defense Nuclear Facilities Safety Board (DNFSB), is \$12.071 million, including 63 FTE staff. In accordance with OMB requirements, OIG is providing the full cost of its programs in that the budget identifies OIG's management and operational support costs and distributes these costs proportionately to the Audits and Investigations Programs.

#### **AUDITS PROGRAM**

With these resources, Audits will conduct approximately 22 NRC audits and evaluations. For FY 2015, Audits will focus on agency programs involving the major management challenges and risk areas facing the NRC to include those agency programs concerning new reactors and spent fuel storage. Areas for OIG audit emphasis in FY 2015 include the following:

- NRC oversight of the existing fleet of reactors and other nuclear facilities and the licensing and construction of new and advanced reactors.
- NRC oversight of the safe and secure use of nuclear materials.
- NRC's oversight of licensee security programs and management of internal NRC security.
- NRC oversight of the interim storage of high-level waste, increased quantities of spent fuel at reactor sites, and the safe management of civilian low-level waste disposal.

OIG will also conduct performance audits to review the NRC's administrative and program operations and evaluate the effectiveness and efficiency with which management responsibilities are carried out and whether the programs achieve intended results. Financial audits will also be conducted to attest to the reasonableness of NRC's financial statements.

Further, Audits will conduct approximately 7 DNFSB audits and evaluations. These audits will evaluate DNFSB's administrative and program operations to determine the programs' effectiveness and efficiency and whether programs achieve intended results. Financial audits will also be conducted to attest to the reasonableness of DNFSB's financial statements.

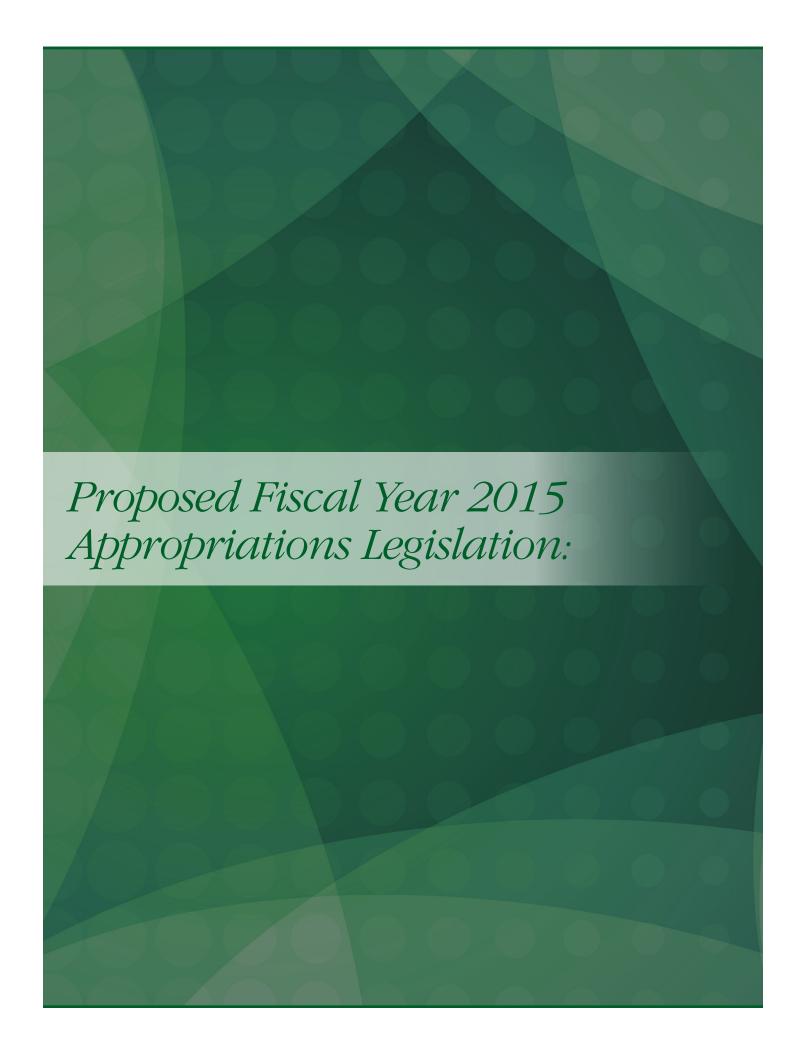
#### **INVESTIGATIONS PROGRAM**

Investigations will initiate approximately 60 NRC investigations and Event Inquiries. Areas for OIG investigative emphasis in FY 2015 include the following:

- Monitor NRC activities and gather stakeholder information to identify potential gaps in NRC regulatory oversight.
- Review NRC and licensee reports and engage interested stakeholders to identify issues of concern in NRC oversight of nuclear material held by NRC licensees the licensing and construction of new and advanced reactors, and the oversight of operating reactors.
- Examine the effectiveness of NRC efforts to address stakeholders' concerns regarding low-level and high-level waste storage issues.
- Address NRC's efforts in providing oversight of licensee responsibilities in effectively securing licensed facilities and nuclear materials.
- Conduct investigations into internal and external cyber breaches of the NRC's information technology infrastructure.
- Examine allegations of misuse of the NRC's corporate resources pertaining to human resources, procurement, financial management, and information technology.

Further, Investigations will conduct approximately 5 DNFSB investigations covering a broad range of allegations concerning misconduct and mismanagement affecting various DNFSB programs.

Proactive investigations are also conducted when indications are raised concerning potentially systematic violations such as theft of Government property or contract fraud. In addition, OIG periodically conducts event inquiries that identify staff actions that may have contributed to the occurrence of an event



#### PROPOSED FY 2015 APPROPRIATIONS LEGISLATION

The NRC's proposed appropriations legislation for FY 2015 is as follows:

#### SALARIES AND EXPENSES

For necessary expenses of the Commission in carrying out the purposes of the Energy Reorganization Act of 1974 and the Atomic Energy Act of 1954, including official representation expenses not to exceed \$25,000, \$1,047,433,000, to remain available until expended: Provided, 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, 2016: Provided further, That revenues from licensing fees, inspection services, and other services and collections estimated at \$925,155,000 in fiscal year 2015 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 2015 so as to result in a final fiscal year 2015 appropriation estimated at not more than \$122,278,000.

### OFFICE OF THE INSPECTOR GENERAL

For necessary expenses of the Office of Inspector General in carrying out the provisions of the Inspector General Act of 1978, \$12,071,000, to remain available until September 30, 2016: Provided, That revenues from licensing fees, inspection services, and other services and collections estimated at \$10,099,000 in fiscal year 2015 shall be retained and be available until September 30, 2016, 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 2015 so as to result in a final fiscal year 2015 appropriation estimated at not more than \$1,972,000: Provided further. That of the amounts appropriated under this heading, \$850,000 shall be for Inspector General services for the Defense Nuclear Facilities Safety Board, which shall not be available from fee revenues: Provided further, That notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the Inspector General Act of 1978 (5 U.S.C. App.) with respect to the Nuclear Regulatory Commission.

#### ANALYSIS OF PROPOSED FY 2015 APPROPRIATIONS LEGISLATION

The analysis of the NRC's proposed appropriations legislation for FY 2015 is as follows:

#### **SALARIES AND EXPENSES**

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

42 U.S.C. 5841 et seq.

The NRC was established by the Energy Reorganization Act of 1974, as amended (42 U.S.C. 5801 et seq.). 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 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 U.S.C. 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:

31 U.S.C. 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.

4. 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 of 1952, the NRC is authorized to collect license fees. Pursuant to 31 U.S.C. 9701, any person who receives a service or thing of value from the Commission shall pay fees to cover the NRC's cost in providing such service or thing of value.

Pursuant to 42 U.S.C. 2214, the NRC is required to assess and collect 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 U.S.C. 2214, enacted in the Energy Policy Act of 2005, and this appropriations request, the aggregate annual amount of such charges shall approximate 90 percent of the Commission's budget authority, less 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.

Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Public Law (P.L.) 108-375, assigned new responsibilities to NRC for waste determinations and monitoring of waste disposal actions for material stored at the U.S. Department of Energy (DOE) 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 \$1,382,400 requested to implement Section 3116 is excluded from NRC's fee recovery requirements.

Section 637 of the Energy Policy Act of 2005, P.L. 109-58, modified NRC's user fee legislation in 42 U.S.C. 2214 to exclude from license fee recovery the amounts appropriated to the Commission for homeland security activities, except for reimbursable costs of fingerprinting and background checks and the costs of conducting security inspections. The \$18,100,600 requested for generic homeland security activities is excluded from NRC's fee recovery requirements.

The aggregate amount of license fees and annual charges to be collected for FY 2015 approximates 90 percent of the Commission's budget authority, less amounts requested to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 and amounts requested for generic homeland security activities pursuant to Section 637 of the Energy Policy Act of 2005.

31 U.S.C. 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.

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

Pursuant to 42 U.S.C. 2214, the NRC is required to assess and collect 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 U.S.C. 2214, enacted in the Energy Policy Act of 2005, and this appropriations request, the aggregate annual amount of such charges shall approximate 90 percent of the Commission's budget authority, less 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.

#### OFFICE OF INSPECTOR GENERAL

- 6. FOR NECESSARY EXPENSES OF THE OFFICE OF INSPECTOR GENERAL IN CARRYING OUT THE PROVISIONS OF THE INSPECTOR GENERAL ACT OF 1978:
- P. L. 100-504 amended the Inspector General Act of 1978, P. L. 95-452, 5 U.S.C. app., to establish an Office of the Inspector General in the NRC effective April 17, 1989, and to require the establishment of a separate appropriation account to fund the Office of the Inspector General.
- 7. TO REMAIN AVAILABLE UNTIL SEPTEMBER 30, 2016:

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

8. REVENUES FROM LICENSING FEES, INSPECTION SERVICES, AND OTHER SERVICES AND COLLECTIONS SHALL BE RETAINED AND BE AVAILABLE UNTIL SEPTEMBER 30, 2016, FOR NECESSARY SALARIES AND EXPENSES IN THIS ACCOUNT, NOTWITHSTANDING SECTION 3302 OF TITLE 31, UNITED STATES CODE:

Under Title V of the Independent Offices Appropriation Act of 1952, the NRC is authorized to collect license fees. Pursuant to 31 U.S.C. 9701, any person who receives a service or thing of value from the Commission shall pay fees to cover the NRC's cost in providing such service or thing of value.

Pursuant to 42 U.S.C. 2214, the NRC is required to assess and collect 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 U.S.C. 2214, enacted in the Energy Policy Act of 2005, and this appropriations request, the aggregate annual amount of such charges approximate 90 percent of the Commission's budget authority, less 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. Also excluded from fee recovery is the \$850,000 requested to provide Inspector General Services for the Defense Nuclear Facilities Safety Board.

31 U.S.C. 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.

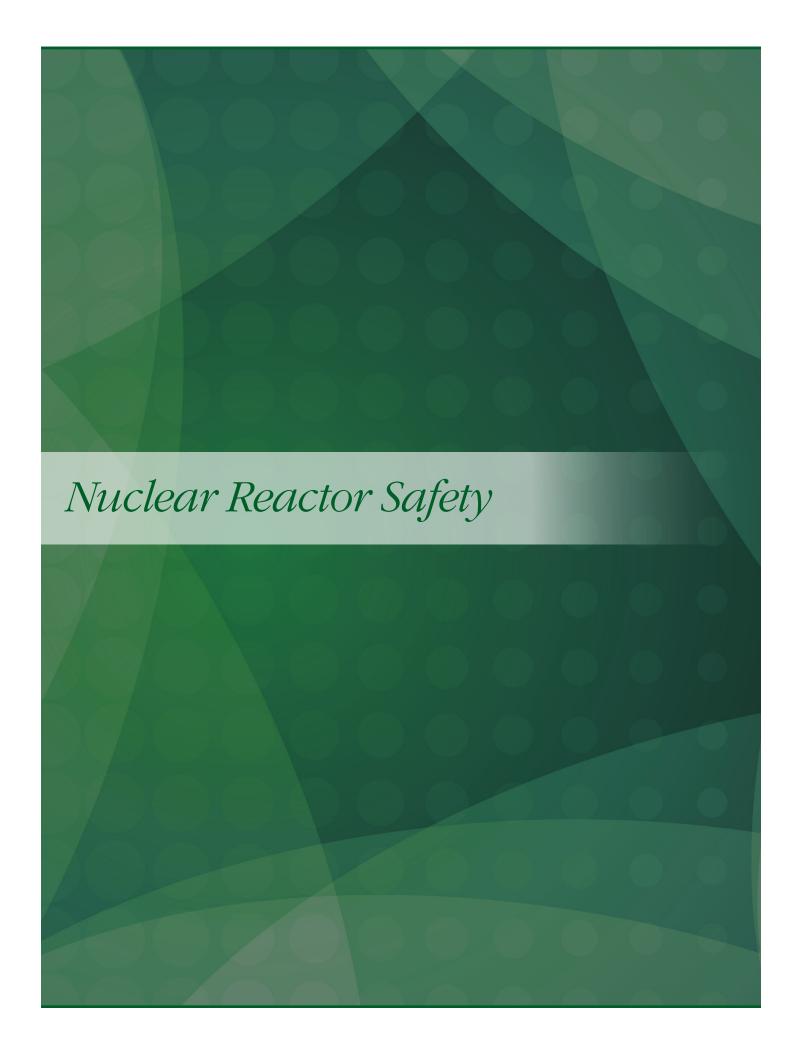
#### 9. THE SUM HEREIN APPROPRIATED SHALL BE REDUCED BY THE AMOUNT OF REVENUES RECEIVED:

Pursuant to 42 U.S.C. 2214, the NRC is required to assess and collect 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 U.S.C. 2214, enacted in the Energy Policy Act of 2005, and this appropriations request, the aggregate annual amount of such charges approximate 90 percent of the Commission's budget authority, less 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. Also excluded from fee recovery is the \$850,000 requested to provide Inspector General Services for the Defense Nuclear Facilities Safety Board.

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

Pursuant to 42 U.S.C. 2214, the NRC is required to assess and collect 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 U.S.C. 2214, enacted in the Energy Policy Act of 2005, and this appropriations request, the aggregate annual amount of such charges approximate 90 percent of the Commission's budget authority, less 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. In addition, pursuant to 42 U.S.C. 2214, any person who receives

a service or thing of value from the Commission is required to pay fees to cover the NRC's cost in providing such service or thing of value. The \$850,000 requested to provide Inspector General Services for the Defense Nuclear Facilities Safety Board is excluded from fee recovery by this appropriations language.



# **NUCLEAR REACTOR SAFETY**

### **NUCLEAR REACTOR SAFETY STRATEGIC GOALS**

Safety: To ensure adequate protection of public health and safety and the environment. Security: To ensure adequate protection in the secure use and management of radioactive materials.

The Nuclear Reactor Safety Program encompasses U.S. Nuclear Regulatory Commission (NRC) efforts to ensure that civilian nuclear power and research and test reactors are licensed and operated in a manner that adequately protects public health and safety, protects the environment, and provides high assurance of the physical security of reactor facilities. This program contributes to the NRC's Safety and Security goals through activities of the Operating Reactors and New Reactors Business Lines that license and regulate existing and new nuclear reactors to ensure their safe operation and physical security. The Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, are the foundations for the NRC regulation of the Nation's civilian nuclear power industry.

Nuclear security is a high priority for the NRC. Throughout the NRC history, effective regulation and strong partnerships with a variety of Federal, State, and local authorities have ensured security at civilian nuclear reactors across the country, especially power reactors. NRC recognizes the need for continuous improvement to ensure the Safety and Security of nuclear power plants. In recent years, the NRC has undertaken comprehensive enhancements to bolster the security of our Nation's nuclear facilities and radioactive materials.

The agency's significant accomplishments were reported in the NRC's FY 2013 Performance and Accountability Report.

Nuclear Reactor Safety (Dollars in Millions)								
FY 2014 Enacted		FY 2015 Request		Delta FY 2015 – FY 2014				
<b>Business Line</b>	\$M	FTE	\$M	FTE	\$M	FTE		
Operating Reactors	590.1	2,140.6	577.3	2,112.3	(12.8)	(28.3)		
New Reactors	221.3	767.9	237.9	846.2	16.5	78.2		
Total	\$811.4	2,908.5	\$815.2	2,958.4	\$3.8	49.9		

Numbers may not add due to rounding...

# PROGRAM RESOURCE SUMMARY

The fiscal year (FY) 2015 proposed budget request for the Nuclear Reactor Safety Program is \$815.2 million, which includes \$333 million in contract support and travel and \$482.2 million in salaries and benefits to support 2,958.4 Full-Time Equivalents (FTE). This funds activities in the Operating Reactors and New Reactors Business Lines and represents an increase of \$3.8 million, including 49.9 FTE.

# **OPERATING REACTORS**

Operating Reactors by Product Line (Dollars in Millions)									
	FY 2014 Enacted		FY 20 Requ		Delta FY 2015 – FY 2014				
Product Line	\$M	FTE	\$M	FTE	\$M	FTE			
Licensing	105.5	499.2	111.9	512.7	6.4	13.4			
Oversight	153.4	833.2	154.5	818.4	1.1	(14.9)			
Rulemaking	14.2	71.3	14.1	70.0	(0.1)	(1.3)			
International Activities	2.5	14.5	2.5	14.4	0.0	(0.0)			
Research	75.3	189.9	78.4	191.0	3.1	1.1			
Generic Homeland Security	3.8	19.3	3.0	15.9	(0.9)	(3.4)			
Event Response	16.9	55.2	15.2	54.8	(1.7)	(0.4)			
Subtotal	\$371.6	1,682.6	\$379.6	1,677.2	\$8.0	(5.4)			
Corporate Support	218.5	458.0	197.7	435.1	(20.8)	(22.9)			
Total	\$590.1	2,140.6	\$577.3	2,112.3	(\$12.8)	(28.3)			

Numbers may not add due to rounding.

The Operating Reactors Business Line encompasses the regulation of 100<sup>1</sup> operating civilian nuclear power reactors and 31 Research and Test Reactors (RTRs) in a manner that adequately protects the health and safety of the public, protects the environment, and provides high assurance of physical security. Under the regulatory oversight of the NRC, the amount of safe electrical power generated from the 100 domestic nuclear power plants now contributes approximately 19 percent of the Nation's electrical production.

The NRC establishes regulatory requirements for the design, construction, operation, and security of nuclear power plants and RTRs in accordance with the provisions of the Atomic Energy Act of 1954, as amended. Through Operating Reactors Business Line activities, the NRC ensures the success of the fundamental tenets of its Safety and Security goals in protecting both the public and workers from the radiation hazards of nuclear reactors. To ensure that plants are operating safely within these requirements, the NRC licenses the plants to operate, licenses the personnel who operate the plants, and establishes technical specifications for the operation of each plant. The NRC also ensures nuclear safety through rulemaking and research efforts, 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 undertaken comprehensive enhancements to bolster the security of our 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 (DBT). These hypothetical threats challenge a plant's physical security, personnel security, and cyber security.

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<sup>&</sup>lt;sup>1</sup> The drop to 100 reactors accounts for the four reactors (Kewanee, San Onofre Units 2 and 3, and Crystal River) that have submitted letters notifying the NRC that they have permanently ceased operations. It also accounts for the announced closure of Vermont Yankee in October 2014 and for the startup of operation of Watts Bar 2 in FY 2015 if that is authorized by NRC.

The agency continuously evaluates this set of hypothetical threats against real-world intelligence to ensure that the agency remains current and prepared.

The budgetary resources will enable the NRC to continue licensing and regulatory activities to ensure the safe and secure operation of these civilian nuclear reactors. The NRC has developed Operating Reactors product lines that best support safety and security strategies that positively impact strategic outcomes as they relate to existing civilian reactors. The resources requested support the Operating Reactors Business Line within the following seven product lines: Licensing, Oversight, Rulemaking, Research, International Activities, Generic Homeland Security (HLS), and Event Response.

The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Measures and their contribution to the achievement of its Strategic Outcomes.

### CHANGES FROM FY 2014 ENACTED BUDGET

Resources decrease due to a reduction in agency overhead and to reflect of the permanent cessation of operations and entry into the decommissioning process at Kewaunee, Crystal River 3 and San Onofre 2 and 3 (SONGS) Operating Reactor decommissioning responsibilities.

The resource decrease is offset in part by increase to support:

- Intergovernmental/international activities related to cyber security, licensing activities related to cyber security, updates to the cyber security regulatory framework, and support for the Security Frequently Asked Questions program.
- Review of licensee submittals related to the Mitigating Strategies and other Fukushima Tier 1 and Tier 2 recommendations. This shift merely represents a comparability adjustment from doing normal licensing actions to Fukushima licensing actions
- Anticipated Generic Safety Issue (GSI) -191 work.
- Work on two Medical Isotopes Production Facilities applications (Subcritical Hybrid Intense Neutron Emitter Medical Technologies, Inc. and Northwest Medical Isotopes).
- The iterative development and deployment of remaining functionalities of the Reactor Program System and efforts to continue data migration and legacy system decommissioning.

# LICENSING

Strategic Goal Strategies Supported by Licensing

Safety: To develop, maintain, and implement licensing and regulatory programs for reactors. Security: To review security plans and changes for consistency with security requirements.

For FY 2015, the NRC requests \$111.9 million, including 512.7 FTE, for licensing activities. This represents a funding increase of \$6.4 million, including 13.4 FTE, when compared with the FY 2014 enacted budget.

The Licensing Product Line supports licensing activities, which are the methods the NRC employs to establish requirements to ensure that operating nuclear power reactor licensees, RTRs, and medical isotope production facility requests for license renewals and other changes provide an adequate margin of safety and security that is consistent with the NRC's rules and regulations.

The NRC also licenses civilian nuclear power reactors and non-power reactors to ensure that they are operated in a manner that adequately protects the health and safety of the public, protects the environment, and provides high assurance of physical security.

The NRC continues licensing activities for 100 power reactors. It is anticipated that the licensing workload will include completing 900 licensing actions (100 of which are Fukushima-related), including the review of approximately 6 power uprates and approximately 15 ongoing National Fire Protection Association (NFPA) 805 reviews for approximately 25 of the reactors that will be transitioning to a risk-informed, performance based set of requirements.

Fukushima lessons-learned activities will continue to progress. For the seismic reevaluations for the Central and Eastern U.S. plants, the seismic hazard assessments are ongoing; the complete reevaluations will be received in March 2014 and their review will determine whether plant risk assessments are needed. For the Western U.S. plants, the plants' seismic hazard evaluations will be received in 2015 and the staff review will determine whether the plants are required to perform a seismic risk assessment. For the flooding reevaluations, the "Category 1" plants submitted their flooding hazard reanalysis reports by March 12, 2013, and these reports are currently under review. Category 2 and 3 plants will submitt their reports by March 12, 2014, and March 12, 2015, respectively. Reviews of the reports will begin when they are received. Plants were categorized based on the likelihood of needing an integrated assessment, the anticipated complexity of their reanalysis, and whether there was existing information (e.g., being co-located with an ongoing early site permit review) to facilitate the analysis. The mitigating strategies (MS) and enhanced spent fuel pool instrumentation orders will be undergoing licensee implementation and the staff will be performing closeout reviews and inspections. For the severe accident capable hardened vents order, the staff will be completing the safety evaluations for the licensee's Phase 1 integrated plans and monitoring licensee implementation. For the emergency preparedness (EP) activities, closeout and inspection efforts, materially linked with the MS order, will take place 4 months before the closeout of and inspection for the MS order. The actions related to Fukushima continue to be of high priority. Resources and FTEs with critical skill sets continue to review the responses from licensees related to the identification and mitigation of site specific hazards.

Reviews will continue for 11 license renewal applications (19 units at 12 sites) for operating reactors. The NRC expects to receive and review three new applications and provide support for several ongoing Atomic Safety and Licensing Board license renewal proceedings. The resources will also support the development, maintenance, and implementation of the license renewal infrastructure, process assessments, improvements, and activities related to developing infrastructure for potential applications for subsequent license renewals.

The NRC will continue conducting licensing reviews, issuing license amendments, and performing project management activities for the existing 31 licensed operating non-power reactors and ensuring that operators are qualified and licensed to perform their duties. In addition, the NRC will review applications for two medical isotope production facilities. The NRC will continue to support the Department of Energy's fuel performance report and address potential partial reviews for conversion of non-power reactors from high-enriched uranium fuel to low-enriched uranium fuel. The NRC will complete 500 other licensing tasks and related activities, including: assistance to the regions; interactions with vendor, industry, and owner's

groups; and 20 technical topical report reviews that resolve generic issues as well as reducing the topical reports backlog. In addition, the NRC expects to complete approximately 53 operator licensing examination sessions and four generic tests completed for reactor operators.

Resources support licensing activities such as review of licensing amendments associated with the security plan changes, cyber security, emergency preparedness reviews, and license renewal activities and associated adjudication, legal advice, and representation. The Agency will also continue to implement Fukushima-related lessons learned regarding the Near-Term Task Force Tier 2 EP recommendations. The Tier 2 EP items include additional guidance related to emergency plans for performing dose assessments for multiple reactor units; the conduct of periodic training and exercises for multiple units and prolonged station blackout scenarios; and ensuring that EP equipment and facilities are sufficient to deal with multiple-unit and prolonged station blackout scenarios.

### **OVERSIGHT**

Strategic Goal Strategies Supported by Oversight

Safety: To continue to oversee the safe operation of existing plants; to oversee licensee safety performance through inspections, investigations, enforcement, and performance assessment activities.

Security: To evaluate licensee security and emergency preparedness programs; to use force-on-force inspections to test security.

For FY 2015, the NRC requests \$154.5 million, including 818.4 FTE, for oversight activities. This represents a funding increase of \$1.1 million, but a decrease of 14.9 FTE, when compared with the FY 2014 enacted budget.

The Oversight Product Line supports the activities and methods that the NRC employs to oversee the safe and secure operation of existing nuclear reactors, better identify significant performance issues, and ensure that licensees take appropriate actions to maintain acceptable operating performance to ensure the adequate protection of public health and safety and the environment.

The NRC performs continuous oversight of plants through its Reactor Oversight Process (ROP) to verify that the 100 licensed operating nuclear power reactors are operated safely and securely in accordance with the NRC's rules, regulations, and license requirements. The NRC has full authority to take action to protect public health and safety and can demand immediate licensee action, up to and including a plant shutdown. The ROP 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 (i.e., frequency of potential accident-initiating events; availability, reliability, and capability of mitigating systems; integrity of radiation barriers, such as fuel cladding, reactor coolant system, and containment boundaries; emergency preparedness; protection of the public from radiation releases; occupational radiation safety; and physical protection against the DBT for radiological sabotage). The ROP recognizes that not all issues are of equal significance. The ROP has a structure in place that initiates more NRC engagement and oversight for events that are more significant. Plants are expected to address issues through their corrective action programs for events that are less significant. In this way, the oversight workload directly supports the Safety and Security goals and related strategic measures and outcomes.

As a condition of their license, operators of nuclear power plants develop and maintain effective emergency preparedness plans to protect the public. The NRC inspects plants to ensure that they are meeting the requirements for emergencies and evaluates the implementation of those requirements. In addition, the agency monitors certain performance indicators related to emergency preparedness.

Generally, the NRC performs two types of inspections: baseline and plant-specific. The FY 2015 budget request includes resources for planned baseline and anticipated plant-specific inspections. Historically, the resources required for these inspections have been fairly constant. A portion of the baseline inspection program is conducted on a 3-year cycle, including approximately 21 fire protection and 21 component design-basis inspections per year. Baseline inspections focus on plant activities, especially those that are not adequately measured by performance indicators. Resources also support plant-specific inspections that typically include 20 reactive inspections, 75 inspections related to performance or specific changes (e.g., inspections done at independent spent fuel storage installations and digital control room inspections), and approximately 100 generic issue inspections that address areas of emerging concern (e.g., cyber security or areas where recurring problems have occurred). Security resources support the NRC's security inspection and assessment program with a number of key elements. These include baseline, tri-annual force-on-force, and special inspections, as well as development of the annual report to Congress. There will be a 2-year increase in regional work for Target Set and Protective Strategy inspections as a result of the new rule.

The ROP also includes the Industry Trends Program through which the NRC collects, analyzes, displays, and trends industrywide reactor performance data to determine if the data show statistically significant adverse industry trends in reactor safety performance.

Resources also support assessment of licensee performance and evaluation of input data (i.e., performance indicators, significance determination process, and determination of any necessary follow-up actions resulting from casework related to enforcement processing and from project/contract management oversight over the Alternative Dispute Resolution (ADR) Program for the licensees). The NRC conducts performance-based evaluations of licensee security and emergency preparedness programs and assesses the effectiveness of such programs. The NRC will perform emergency preparedness baseline and special inspections, including outreach activities with state and local governments, Tribal organizations, and interstate organizations.

Resources also support legal review, communications to internal and external stakeholders, and audits associated with the ROP, license renewal inspections, investigations and early ADR program activities, security issues, performance assessments, and the development of enforcement guidance.

Resources will support event evaluation, generic communications, and the review of industry operating experience (screening of approximately 3,000 national and international operational events per year). Approximately 150 to 200 issues per year receive additional detailed evaluations. Resources support independent evaluation and trending of operational events and funding of human factor event evaluations.

Resources also support enforcement, allegation activities, and investigations of alleged wrongdoing. Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations.

The ROP includes an assessment process, which integrates inspection findings with other objective measures of performance that are submitted quarterly by licensees for each power reactor site. Results from this assessment process are used as feedback to determine appropriate NRC actions for the reactor sites.

Resources increase to support the replacement, maintenance, and operation of the Reactor Program System (RPS), which is used for planning and scheduling of inspection activities and capturing and reporting inspection findings. Originally developed in 1998, the system is now obsolete and needs replacement. The RPS is an agency wide tool that is critical to support the oversight and inspection activities of nuclear power reactors, 47 uranium recovery sites, and 9 major fuel cycle facilities.

#### RULEMAKING

Strategic Goal Strategies Supported by Rulemaking

Safety: To use sound science and state-of-the-art methods to establish, where appropriate, risk-informed and performance-based regulations.

Security: To use a framework of rules and regulations to guide the security activities of the agency.

For FY 2015, the NRC requests \$14.1 million, including 70 FTE, for rulemaking activities. This represents a funding decrease of \$0.1 million, including 1.3 FTE, when compared with the FY 2014 enacted budget.

The Rulemaking Product Line includes the development and update of rules and regulatory quidance that promote licensee compliance with underlying safety principles and security requirements.

The regulatory framework guides the safety activities and environmental reviews of the agency and its licensees. The NRC's rules and regulations contribute to the Safety and Security goals and related strategic measures and outcomes because they provide the foundation of the safety and security activities of the agency. NRC regulations are contained in Title 10, "Energy," of the Code of Federal Regulations (10 CFR).

The FY 2015 workload includes 18 high-priority rulemaking activities and three medium-priority rulemaking activities directed by the Commission, including policy development activities related to the NRC regulatory framework after the Fukushima Event. Examples of high-priority rulemaking activities include three rulemakings from the Fukushima Near-Term Task Force recommendations and a rulemaking implementing the new statutory authority from the Energy Policy Act of 2005 regarding the use of enhanced weapons. Resources also provide support for work on approximately 18 Petitions for Rulemaking (PRMs), assuming receipt of 6 PRMs each year and issuance of 9 closure packages. Additionally, resources will support legal advice for high-priority and medium-priority rulemakings, petitions, and regulatory basis development for medical isotope production facilities.

Resources for rulemaking will support the development/completion of the technical assessment and regulatory basis development efforts which are needed to support the preparation and promulgation of new or amended regulations for ongoing, new, and amended rules and support the development of supplemental regulatory guides directly related to revised/new rules. Resources also allow the NRC to maintain rulemaking guidance documents based on lessons learned and process improvements/enhancements, including work on regulatory guides.

Support for other rulemaking activities includes updating and implementing guidance documents (e.g., NUREGs). In addition, resources support guidance updates associated with the Regulatory Analysis Handbook.

#### INTERNATIONAL ACTIVITIES

Strategic Goal Strategies Supported by International Activities
Safety: To use domestic and international operating experience to inform decision-making.
Security: To work with international counterparts to exchange information.

For FY 2015, the NRC requests \$2.5 million, including 14.4 FTE, for international activities. This represents no change in resources or workload when compared with the FY 2014 enacted budget.

The International Activities Product Line supports the NRC's international work, which assists regulatory decision-making through analysis of international operating experience, trends and other events of national interest. NRC's international work analyzes this information for risk significance, lessons learned, and generic applicability. This ensures agency awareness of emerging technical issues and promotes best practices in accomplishing the agency's safety and security goals and related strategic measures and outcomes. Additionally, the NRC participates in the development and evaluation of international standards to ensure that they are technically justifiable and to determine whether substantive safety improvement can be identified and implemented domestically. The NRC also must perform certain legislatively mandated international duties, including licensing the import and export of nuclear materials and equipment and participating in activities supporting U.S. compliance with international treaties and agreement obligations. The NRC has bilateral programs to provide assistance to or cooperation with 36 countries and Taiwan. In addition, the NRC actively cooperates with multinational organizations, such as the International Atomic Energy Agency (IAEA) and the Organization for Economic Co-operation and Development's (OECD's) Nuclear Energy Agency (NEA). Cooperation with IAEA includes participation in IAEA's Integrated Regulatory Review Service (IRRS) to review member state safety regulations and in the Convention on Nuclear Safety (CNS). Cooperation with NEA includes leadership roles in the Committee on Nuclear Regulatory Activities (CNRA) to influence the development internationally of improved regulation, licensing, and inspections of nuclear installations. Workload includes periodic exchanges of information important to the safe operation of nuclear power plants, visits by foreign regulatory officials to operating domestic nuclear power plants, visits by foreign regulatory bodies, and hosting counterpart foreign regulatory officials through the NRC's Foreign Assignee Program to provide experience in NRC regulatory practices.

The NRC participates in international cooperative research programs that conduct experiments and provide access to operational data to augment NRC programs and analytical tools in areas such as plant aging and materials degradation, seismic and structural integrity, digital instrumentation and control, fire risk, fuel performance, thermal hydraulic and severe accident phenomena, and pressurized thermal shock. Analysis of this experience contributes to the NRC's knowledge base, improves assessments of plant risk, and improves the development of risk-informed approaches to regulation. Experimental data from the cooperative research programs helps to inform the technical basis for NRC's regulatory decision-making.

The NRC works with international counterparts to exchange information, expertise, and operating experience; to participate in ongoing research to recognize and respond to emerging

technical issues; and to promote best practices for safety and security. This international cooperation promotes nuclear safety and security worldwide.

#### RESEARCH

Strategic Goal Strategies Supported by Research

Safety: To improve the NRC's regulatory programs and to anticipate and resolve safety issues. Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$78.4 million, including 191 FTE, for research activities. This represents a funding increase of \$3.1 million, including 1.1 FTE, when compared with the FY 2014 enacted budget.

The mission of the NRC's research program is to evaluate and resolve safety issues for nuclear power plants and other facilities and materials that the agency regulates. This includes evaluating existing and potential safety issues; supplying independent expertise, information, and technical judgments to support timely and realistic regulatory decisions; reducing uncertainties in risk assessments; and developing technical regulations and standards. Research programs cover all technical areas of the NRC's regulations.

In FY 2015, research work will be performed in various technical areas to ensure the continued safety and security of operating reactors. These areas include (1) research to address recommendations from the lessons-learned evaluation of the Fukushima accident, (2) fire safety, (3) digital and electrical systems, (4) materials degradation, (5) reactor safety code development and analysis, (6) radiation protection, (7) probabilistic risk assessment (PRA), and (8) confirmatory research on the sufficiency and completeness of industry data on issues challenging operation beyond 60 years such as reactor pressure vessel embrittlement; irradiation-assisted stress corrosion cracking of reactor internals, concrete structures and containment degradation and electrical cable condition assessment, and (9) evaluation of hazards from natural events...

Research will be performed to address recommendations from the lessons-learned evaluation of the accident in Fukushima, Japan. This will include probabilistic risk assessment of seismically induced flooding and fire, analysis of filtered venting, hydrogen control and mitigation, transfer of spent fuel to dry cask storage, and enhanced reactor and containment instrumentation.

Fire safety research will continue to support the transition to a risk-informed, performance-based set of requirements in response to National Fire Protection Association Standard 805 and the current licensing basis for plants. This work includes cable fire testing, spurious circuit actuation testing, fire risk assessment training, high-energy arc fault testing, and fire modeling.

Research associated with digital systems will include the review of applications of digital instrumentation and controls, including identification and resolution of technical issues related to emerging digital systems and technology, failure mode and reliability assessment of software and digital systems, treatment of digital systems in PRA models, assessment of the aging of components and equipment, and security aspects of digital systems.

Research associated with electrical systems will be conducted in the areas of equipment qualification for subsequent license renewal, assessment of the aging of electrical insulation materials, battery performance, the impact of smart grids on nuclear power plants, and assessment of failure of onsite power sources.

Research will continue to further understand and manage potential degradation associated with reactor pressure boundary components, vessel internals, containment liners, and neutron-absorbing materials used in spent fuel pools. This research includes assessing the effectiveness and reliability of various in-service inspection techniques, performing residual stress and nondestructive examination studies on retired components, evaluating the behavior of various components under severe accident conditions, developing a probabilistic code for assessing piping integrity, and studying the embrittlement of reactor vessel pressure boundary materials. Research is also being performed in the area of material engineering to evaluate plant life extension for subsequent license renewal.

The NRC uses computer codes to perform probabilistic risk assessments and evaluate thermal-hydraulic conditions, severe accidents, fuel behavior, and reactor kinetics during various operating and postulated accident conditions. Research in this area will continue to support decision-making for risk-informed activities, the review of licensees' codes and performance of audit calculations, and the resolution of other technical issues. Code development is directed toward improving the realism and reliability of code results and making the codes easier to use.

Research efforts will provide technical support in the areas of radiation protection, dose assessment, and assessment of human health effects for licensing, emergency preparedness, and nuclear security activities. This research will support recommendations on health physics policy. Research activities will also provide technical support for the development of environmental regulatory guidance to support regulatory needs. To explore exposure issues associated with patient release, time/motion studies are being conducted to consider exposures that might be encountered by members of the public beyond family or caregivers.

Research efforts will include the development of plant-specific standardized plant analysis risk models and maintenance of the Systems Analysis Programs for Hands-on Integrated Reliability Evaluations PRA code to support the ROP and other risk-informed agency decision processes. Resources also support the development of improved methods and tools for risk-informing regulatory programs, including development of new PRA methods, models, and tools; the development of a site Level 3 PRA to incorporate insights from advances in PRA technology; and piloting draft guidance for eliciting and using expert judgment.

Research will be conducted to improve the understanding of (1) earthquake occurrence and ground motion at nuclear power plant sites in the central and eastern sections of the United States and (2) the performance of structures, passive components, and other issues related to earthquake engineering. Research efforts will include working with the relevant federal agencies on evaluation of other hazards from natural events including flooding, and tsunami events. In addition, research is intended to improve probabilistic models such as those for flooding and severe weather and to enhance the understanding of phenomena such as liquid releases of contaminated water following a nuclear power plant accident and degradation processes in concrete structures. The results of this research will be used to inform licensing decisions and to update risk assessments.

### **GENERIC HOMELAND SECURITY**

Strategic Goal Strategies Supported by Generic Homeland Security

Safety: To effectively respond to events at NRC-licensed facilities and other events of national interest, including maintaining and enhancing the NRC's critical incident response and communication capabilities.

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

For FY 2015, the NRC requests \$3.0 million, including 15.9 FTE, for generic HLS activities. This represents a funding decrease of \$0.9 million, including 3.4 FTE, when compared with the FY 2014 enacted budget.

Workload includes the entire scope of threat assessment activities (intelligence information assessment, internal and external communications, and information assessment team activities), intergovernmental coordination on national HLS priorities, integrated response planning and coordination, and emerging technology analysis and evaluation.

#### **EVENT RESPONSE**

Strategic Goal Strategies Supported by Event Response

Safety: To effectively respond to events at NRC-licensed facilities and other events of national interest, including maintaining and enhancing the NRC's critical incident response and communication capabilities.

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

For FY 2015, the NRC requests \$15.2 million, including 54.8 FTE, for event response activities. This represents a funding decrease of \$1.7 million, including 0.4 FTE, when compared with the FY 2014 enacted budget.

The Event Response Product Line supports the NRC's incident response and emergency preparedness activities to ensure that the agency can respond effectively to events at its licensees' sites and that adequate protective measures can be taken to mitigate plant damage and minimize possible radiation exposure of members of the public. The NRC's program for emergency preparedness and event response is focused on ensuring that its licensees are capable of implementing adequate measures to protect public health and safety in the event of a radiological emergency.

The 2015 budget includes resources that ensure that the NRC Headquarters Operations Center (HOC) is staffed around the clock and able to collect and disseminate event response information and coordinate NRC response in ways consistent with the NRC's responsibilities for events involving NRC-licensed material under the National Response Framework. The FY 2015 request also funds drill and exercise preparation and participation, NRC regional office event response readiness and Incident Response Centers, critical incident response communications tools (including the Emergency Response Data System and the HOC Information Management System), accident assessment tools (such as the Radiological Assessment System for

Consequence Analysis [RASCAL] Radiation Dose Assessment Code), intergovernmental coordination and communications tools, and maintaining response program infrastructure (e.g., response manual procedures and associated guidance).

#### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

Subcritical Hybrid Intense Neutron Emitter (SHINE) Medical Technologies, Inc. submitted its two-part construction permit application for a medical radioisotope production facility. In support of the SHINE environmental review, NRC staff conducted a public scoping meeting and site audit in July 2013. This is the first application submitted to the NRC for a facility intending to produce molybdenum-99 (Mo-99) using low-enriched uranium technology. Letters of intent for facilities to produce Mo-99 have also been received from Coqui Radiopharmaceuticals, Northwest Medical Isotopes, Eden Radioisotopes, University of Missouri Research Reactor, and Flibe Energy.

The agency conducted reviews related to National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light-Water Reactor Electric Generating Plants," during the fiscal year. The first non-pilot reviews were completed. The agency developed revised template language for its Supplemental Environmental Impact Statement (SEIS) for license renewals for nuclear power plants to ensure that environmental reviews continue as required by Commission Order <a href="CLI-12-16">CLI-12-16</a>, "Memorandum and Order on Waste Confidence." The order indicates that all licensing reviews and proceedings should continue to move forward. It also indicates that the Commission will not issue final licenses that depend on the Waste Confidence Decision until the D.C. Circuit's remand of that decision is appropriately addressed. Therefore, no new license renewals will be issued until the Waste Confidence Generic Environmental Impact Statement and rule are issued. The draft Environmental Impact Statement and rule were published for public comment in September 2013.

In November 2012, the NRC issued the "U.S. Nuclear Regulatory Commission Manual Chapter 0350 Panel Fort Calhoun Station Restart Checklist Basis Document." The outcome of NRC actions described in the basis document were used by the IMC 0350 Panel to assess the plant's readiness for restart. The NRC conducted a public meeting in Omaha to discuss the status of Fort Calhoun's recovery activities. On December 17, 2013, the NRC issued the "Fort Calhoun Station Closure of Confirmatory Action Letter." The letter specifically addressed the following areas: Confirmatory Action Letter closure, coordination of the restart decision with other federal agencies, and continuation of enhanced NRC regulatory oversight of FCS activities after restart.

Licensees, with the exception of Crystal River, Unit 3, due to permanent ceased operations, provided their integrated plans required by the NRC's March 12, 2012, Tier 1 orders resulting from the NRC Near-Term Task Force recommendations in response to the Fukushima Dai-ichi accident in March 2011.

For flooding and seismic reevaluations, the agency issued (1) JLD-ISG-2012-04, "Guidance on Performing a Seismic Margin Assessment in Response to the March 2012 Request for Information Letter;" (2) JLD-ISG-2012-05, "Performance of the Integrated Assessment for External Flooding;" (3) JLD-ISG-2012-06, "Guidance for Performing a Tsunami, Surge or Sieche Hazard Assessment;" and (4) JLD-ISG-2013-01, "Guidance for Assessment of Flooding Hazards Due to Dam Failure."

The NRC issued a final report for public comment titled "Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor" (also referred to as the Spent Fuel Pool Study). The purpose of this study was to examine whether faster removal of older, colder spent reactor fuel from pools to dry cask storage significantly reduces risks to public health and safety. This study's results are consistent with earlier research conclusions that the spent fuel pools is a robust structures that is likely to withstand severe earthquakes without leaking. The insights from this study have informed a broader regulatory analysis of the spent fuel pools at all U.S. operating nuclear reactors as part of addressing the NRC's Fukushima follow-up recommendations and will help to inform NRC decisions on movement of spent fuel from spent fuel pools to dry cask storage.

The NRC prepared for and responded to several events in FY 2013. Two notable examples were Hurricane Sandy and a lockout at Grand Gulf Nuclear Power Plant. The agency staffed the Headquarters Operations Center and Regional response centers for Hurricane Sandy in October 2012. Hurricane Sandy, the second-largest Atlantic storm on record, affected the East Coast from Florida to Maine. Several nuclear power plants located in the path of the super storm took actions to address the impacts and ensure safe operations. Additionally, the agency responded to a Security Officer lockout at the Grand Gulf Nuclear Power Plant through development and implementation of a strike contingency plan.

The NRC is evaluating the time sensitive issues associated with the recent closure and decommissioning of several nuclear power plants. Issues include ensuring consistency in the Agency's response to the closure, development of emergency preparedness and security guidance, and onsite staffing levels following licensee certification of the permanent removal of fuel from the reactor vessel.

The NRC published NUREG/CR-7148, "Confirmatory Battery Testing: The Use of Float Current Monitoring to Determine Battery State-of-Charge." This confirmatory research was conducted to validate nuclear industry methods for determining the recharge operability state of nuclear power plant station batteries. This research will provide the technical basis for a revision of related regulatory guidance to adopt the latest industry standard method for maintenance of station batteries.

The NRC also issued SECY-12-0157, "Consideration of Additional Requirements for Containment Venting Systems for Boiling Water Reactors with Mark I and Mark II Containments," to address the Fukushima follow-up recommendations on filtered containment venting systems. This paper includes probabilistic risk assessment insights on accident scenario selection, calculation of source terms (amount of radioactive release) and consequences, and an assessment of risk reduction corresponding to various mitigation strategies. Additional research will be done in FY 2014 and the results will be used to inform the technical basis for an eventual performance-based filtered containment venting system rulemaking.

# **OPERATING REACTORS OUTPUT INDICATORS**

### **LICENSING**

	Completion of License Renewal Application Reviews.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	Complete major	Complete major	Make final	Make final	Make final	Make final			
	milestones for 3	milestones for 3	decision on	decision on	decision on	decision on			
	applications.	applications.	license renewal	license renewal	license renewal	license renewal			
			for one reactor	for 2 reactor unit	for 0 reactor	for 9 reactor			
			unit		units	units			
Actual	Target met -	Target met -	Made final	None*					
	Issued 5 renewed	Renewed 8	decision on						
	licenses.	licenses	license renewal						
	Completed SER		on 2 units						
	for 3 applications								
	and SEIS for 2								
	applications.								

<sup>\*</sup>Final decisions for License Renewal applications are delayed throughout FY 2013 and FY 2014 due to Waste Confidence Decision.

	Licensing Actions Completed Per Year*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	Complete 950 licensing actions.	Complete 950 licensing actions.	Complete 950 licensing actions.	Complete 950 licensing actions. ***	Complete 900 licensing actions.	Complete 900 licensing actions.			
Actual	988 completed	849 completed	770 completed**	668 completed****					

<sup>\*</sup>As limited by the number of Licensing Action requests submitted/accepted the previous FY

<sup>\*\*\*\*</sup>The metric for number of license actions is challenged due to Fukushima related work competing for the same critical area skill sets/branches in NRR.

Age Of Licensing Action Inventory.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90% ≤ 1 yr.	95% ≤ 1 yr.	95% ≤ 1 yr.	95% ≤ 1 yr.	95% ≤ 1 yr.	95% ≤ 1 yr.		
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.		
Actual	93% ≤ 1 yr.	90.3% ≤ 1 yr.	95.8% < 1yr	95% < 1yr				
	100% ≤ 2 yrs.	99.9% ≤ 2 yrs.	100% < 2yrs	100% < 2yrs				

<sup>\*</sup> Excludes improved standard technical specifications (iSTS) conversions, licensing actions associated with the Fukushima Near-Term Task Force Recommendations, and power uprates. Also excludes license amendment requests that are unusually complex.

Age Of Other Licensing Action Inventory.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90% ≤ 1 yr.	90% ≤ 1 yr.	90% ≤ 1 yr.	90% ≤ 1 yr.	90% ≤ 1 yr.	90% ≤ 1 yr.		
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.		
Actual	94% ≤ 1 yr.	94.2% ≤ 1 yr.	94.6% ≤ 1 yr.	97.6% ≤ 1 yr.				
	100% ≤ 2 yrs.	99.6% ≤ 2 yrs.	100% ≤ 2yrs	100% ≤ 2yrs				

<sup>\*</sup>Excludes multi-plant actions, licensing tasks associated with the Fukushima Near-Term Task Force Recommendations, and other unusually complex licensing tasks.

<sup>\*\*660</sup> license amendments requests were submitted in FY 2011

<sup>\*\*\*802</sup> license amendments requests were submitted in FY 2012

Other Licensing Tasks Completed Per Year.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	Complete 600 other licensing tasks.	Complete 600 other licensing tasks.	Complete 600 other licensing tasks.	Complete 600 other licensing tasks.*	Complete 500 other licensing tasks.	Complete 500 other licensing tasks.		
Actual	625 other	465 other	674 other	529 other	ldSKS.	tdSKS.		
	licensing tasks completed.	licensing tasks completed	licensing tasks completed	licensing tasks Completed***				

 $<sup>\</sup>hbox{*As limited by the number of Other Licensing Task requests submitted/accepted the previous fiscal year.}$ 

<sup>\*\*\*</sup> The metric for number of license actions is challenged due to Fukushima related work competing for the same critical area skill sets/branches in NRR.

		Number Of Opera	tor Licensing Examina	ations Administered		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	Meet licensee	Meet licensee	Meet licensee	Meet licensee	Meet licensee	Meet licensee
	demand	demand	demand	demand	demand	demand
	estimated at 55	estimated at 55	estimated at 55	estimated at 55	estimated at 55	estimated at 53
	initial operator	initial operator	initial operator	initial operator	initial operator	initial operator
	licensing	licensing	licensing	licensing	licensing	licensing
	examination	examination	examination	examination	examination	examination
	sessions and 4	sessions and 4	sessions and 4	sessions and 4	sessions and 4	sessions and 4
	generic	generic	generic	generic	generic	generic
	fundamentals	fundamentals	fundamentals	fundamentals	fundamentals	fundamentals
	examination	examination	examination	examination	examination	examination
	sessions	sessions	sessions	sessions	sessions	sessions
Actual	Met licensee	Met licensee	Met licensee	Met licensee		
	demand	demand	demand	demand		
	estimated at 54	estimated at 55	estimated at 49	estimated at 55		
	initial operator	initial operator	(with 55	initial operator		
	licensing	licensing	originally	licensing		
	examination	examination	estimated) initial	examination		
	sessions and 4	sessions and 4	operating	sessions and 4		
	generic	generic	licensing	generic		
	fundamentals	fundamentals	examination	fundamentals		
	examination	examination	sessions and 4	examination		
	sessions	sessions	generic	sessions		
			fundamentals			
			examination			
			sessions			

<sup>\*\*577</sup> Other Licensing Tasks submitted in FY12.

## **OVERSIGHT**

Number	Of Plants For Which The I	Baseline Inspection P	rogram Was Comple	ted During The Most	Recently Ended Insp	ection Cycle.*
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	All required	All required	All required	All required	All required	All required
	baseline	baseline	baseline	baseline	baseline	baseline
	inspection	inspection	inspection	inspection	inspection	inspection
	procedures are	procedures are	procedures are	procedures are	procedures are	procedures are
	completed at 104	completed at 104	completed at 104	completed at 104	completed at 100	completed at 100
	operating	operating	operating	operating	operating	operating
	reactors.	reactors.	reactors.	reactors.	reactors.	reactors.
Actual	Completed all	Completed all	Completed all	Completed all		
	reactors.	reactors	reactors	reactors**		

<sup>\*</sup>The baseline inspection program metric includes 104 operating reactors.

<sup>\*\* 100</sup> operating reactors in FY 2013; four entered the decommissioning phase.

Percentage Of Final Significance Determination Process Determinations Made Within 90 Days For All Potentially Greater Than Green Findings.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90%	90%*	90%	90%	90%	90%		
Actual	93%	100%	100%	100%				

<sup>\*</sup> Target mistakenly reported to be 100% in 2011 Congressional Budget Justification.

Time To Complete Reviews Of Technical Allegations.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90% ≤ 150 days							
	95% ≤ 180 days							
	100% ≤ 360 days							
Actual	95% ≤ 150 days	98% ≤ 150 days	98% ≤150 days	95% ≤150 days				
	98% ≤ 180 days	99% ≤ 180 days	99% ≤180 days	99% ≤180 days				
	100% ≤ 360 days	100% ≤ 360 days	100%≤360 days	100%≤360 days				

<sup>\*</sup>A few allegations exceeded the target due to complicated technical review or extended review at another Federal agency.

	Timeliness In Completing Enforcement Actions.*									
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation				
	cases: 100%	cases: 100%	cases: 100%	cases: 100%	cases: 100%	cases: 100%				
	completed within 360	completed within 360	completed	completed	completed	completed				
	days of OE processing	days of OE processing	within 330 days	within 330 days	within 330 days	within 330 days				
	time. Non-	time. Non-	of OE	of OE	of OE	of OE				
	Investigation cases:	Investigation cases:	processing	processing	processing	processing				
	100% completed	100% completed	time. Non-	time. Non-	time. Non-	time. Non-				
	within 180 days of OE	within 180 days of OE	Investigation	Investigation	Investigation	Investigation				
	processing time	processing time	cases: 100%	cases: 100%	cases: 100%	cases: 100%				
			completed	completed	completed	completed				
			within 160 days	within 160 days	within 160 days	within 160 days				
			of OE	of OE	of OE	of OE				
			processing time	processing time	processing time	processing time				

Actual	Investigation: None ≥ 360 days Non- Investigation: none ≥ 180 days	Investigation: None ≥ 360 days Non- Investigation: none ≥ 180 days	Investigation none ≥ 330 days Non- investigation: none ≥ 160	Investigation none ≥ 330 days Non- investigation: none ≥ 160
			days	days

<sup>\*</sup>A. Cases involving investigations normally involve wrongdoing including discrimination and by their nature is more resource intensive and less  $timely. \ \ Accordingly, the \ performance \ Indicator \ for \ cases \ involving \ investigations \ provides \ for \ more \ staff \ time.$ 

B. OE processing time is defined as that time from the date the case is opened or the licensee is briefed on the concern (exit) to the issuance of an enforcement action or other appropriate disposition less: (1) any time the NRC could not act due to the case residing with DOL, DOJ, other government entity or where the licensee or anyone outside the enforcement process causes a lengthy deferment, and (2) any time the NRC could not act due to processing Freedom of Information Act requests.

		Timeliness In Complet	ting Investigations	- Target 1.		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	80% of investigations	80% of investigations	80% of	80% of	80% of	80% of
	which developed	which developed	investigations	investigations	investigations	investigations
	sufficient information	sufficient information	which	which	which	which
	to reach a conclusion	to reach a conclusion	developed	developed	developed	developed
	regarding wrongdoing	regarding wrongdoing	sufficient	sufficient	sufficient	sufficient
	will be completed in	will be completed in	information to	information to	information to	information to
	10 months or less.	10 months or less.	reach a	reach a	reach a	reach a
			conclusion	conclusion	conclusion	conclusion
			regarding	regarding	regarding	regarding
			wrongdoing	wrongdoing	wrongdoing	wrongdoing
			will be	will be	will be	will be
			completed in	completed in 9	completed in 9	completed in 9
			10 months or	months or less.	months or less.	months or less
			less.			
Actual	Completed 40	Completed 93	Completed 114	Completed 61%		
	investigations in	investigations in	investigations	Investigations		
	which 98% (39)	which 84% (78)	in which 89%	completed in 9		
	developed	developed	(95)	months or less		
	sufficient information	sufficient information	developed	developed		
	to reach a conclusion	to reach a conclusion	sufficient	sufficient		
	regarding wrongdoing	regarding wrongdoing	information to	information to		
	were completed in 9	were completed in 9	reach a	reach a		
	months or less	months or less	conclusion	conclusion		
			regarding	regarding		
			wrongdoing	wrongdoing.*		
			was completed			
			in 9 months or			
			less.			

<sup>\*</sup> The metric was challenged due to several high profile cases, workload of agents, and large turnover of staff working on cases.

FY 2014 FY 2015
20/ (0) 0 1000/ (0) 1000/ (0)
0% of OI Close 100% of OI Close 100% of OI
tions in investigations in investigations in
nitiate time to initiate time to initiate
or civil and/or civil and/or
criminal criminal
nent enforcement enforcement
action. action.
00% of
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#### RESEARCH

	Timeliness Of Completing Actions On Critical Research Programs.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	90% of major	90% of major	90% of major	90% of major	90% of major	90% of major			
	milestones met	milestones met	milestones met	milestones met	milestones met	milestones met			
	on or before	on or before	on or before	on or before	on or before	on or before			
	their due date.	their due date.	their due date.	their due date.	their due date.	their due date.			
Actual	100% across	100% across	100% across	100% across					
	programs.	programs.	programs	programs					

<sup>\*</sup>Critical research programs typically respond to high priority needs from the Commission and NRC's licensing organizations. Critical research programs will be the highest priority needs identified at the beginning of each fiscal year.

Acceptable Technical Quality Of Agency Research Technical Products*							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	Combined	Combined	Combined	Combined	Combined	Combined	
	score ≥ 3.5	score ≥ 3.5	score ≥ 3.5	score ≥ 3.5	score ≥ 3.75	score ≥3.75	
Actual	4.6	4.8	4.5	4.32			

<sup>\*</sup>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**

Emergency Response Performance Index.*							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	100%	100%	100%	100%	100%	100%	
Actual	100%	100%	100%	100%			

<sup>\*</sup>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.

# **NEW REACTORS**

	New		by Product n Millions)	Line		
	FY 2014 FY 2015 Delta Enacted Request FY 2015 – FY 20					
Product Line	\$M	FTE	\$M	FTE	\$M	FTE
Licensing	93.9	361.9	111.0	443.4	17.1	81.5
Oversight	35.3	192.1	32.0	175.3	(3.2)	(16.8)
Rulemaking	2.8	15.1	2.1	11.8	(0.7)	(3.3)
International Activities	1.3	7.2	1.5	8.3	0.2	1.0
Research	9.1	26.2	8.6	25.6	(0.5)	(0.7)
Subtotal	\$142.4	602.5	\$155.2	664.3	\$12.8	61.8
Corporate Support	78.9	165.4	82.6	181.9	3.7	16.5
Total	\$221.3	767.9	\$237.9	846.2	\$16.5	78.2

Numbers may not add due to rounding.



Figure 3. Location of Applied-for New Nuclear Power Reactors

The work of the New Reactors Business Line responds to industry's interest in building new commercial nuclear power plants to meet the Nation's future electric power generation needs. All civilian nuclear power reactors must be licensed by the NRC and adhere to NRC regulations to operate in the United States. The New Reactors Business Line is responsible for the regulatory activities associated with locating, licensing, and overseeing construction of new nuclear power reactors. The NRC reviews new nuclear power reactor Design Certification (DC), Combined License (COL), and Early Site Permit (ESP) applications in a way consistent with 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," and industry's projected plans and schedules. 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 new reactor activities ensure that the development of new civilian nuclear power reactor facilities is done in a manner that protects the health and safety of the public, protects the environment, and provides high assurance of security.

The NRC has streamlined the application process for new reactors under 10 CFR Part 52. including publishing a major revision in FY 2008. 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 application process prescribed under 10 CFR Part 50, which was implemented for all currently operating reactors, involves separate applications for the issuance of a construction permit and an operating license.

The NRC continues to perform technical reviews of large light-water reactors and to provide oversight of construction activities. These activities include conducting inspections of plants under construction and of component suppliers. In addition, the NRC will begin to review small modular reactor (SMR) applications. The NRC continues to interact with vendors regarding prospective advanced reactor applications.

The NRC has organized new-reactors activities into product lines that best support Safety and Security strategies and positively impact strategic outcomes as they relate to new civilian reactors. The resources requested support all direct aspects of new reactors within the following six product lines: Licensing, Oversight, Rulemaking, Research, International Activities, and Generic Homeland Security. The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of its Strategic Outcomes.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Increases support design certifications, early site permits, and licensing reviews. In addition, resources increase to support additional SMR design certification and combined license applications. Resources decrease in construction inspection activities associated with the oversight development program maintenance. This decrease is partially offset by an increase in resources supporting startup of Watts Bar Unit 2.

#### LICENSING

Strategic Goal Strategies Supported by Licensing

Safety: To develop, maintain, and implement licensing and regulatory programs for reactors. Security: To review security plans for consistency with security requirements.

For FY 2015, the NRC requests \$111.0 million, including 443.4 FTE, for licensing activities. This represents an increase of \$17.1 million, including 81.5 FTE, when compared with the FY 2014 enacted budget.

The Licensing Product Line supports the licensing process—the NRC's determination that applicants' plans for the development, construction, and operation of new nuclear power plants provide an adequate margin of safety and security to ensure protection of the public health and safety and the environment in ways consistent with the NRC's rules and regulations.

Licensing includes the review and certification of new and advanced reactor designs and development of a regulatory framework, including the supporting technical basis to license advanced reactor designs.

Licensing workload includes the review of COL, construction permit, and operating license applications, including meetings before the Advisory Committee on Reactor Safeguards and preparations for hearings before the Atomic Safety and Licensing Board Panel and for mandatory hearings on COLs before the Commission. A COL, issued by the NRC, authorizes the licensee to construct and, with specified conditions, operate a nuclear power plant at a specific site. The NRC has received 18 COL applications from the nuclear power industry and is currently reviewing the nine applications that remain active; two applications were issued licenses, six applicants requested that their reviews be suspended, and one application was withdrawn. The NRC expects to continue reviews on the active COL applications during FY 2015. Resources will fund environmental reviews and safety reviews, which include emergency preparedness technical reviews, security plan technical reviews, security-related assessments, and financial analysis of COL applicants. Licensing also provides the resources to support licensing-related legal representation, independent advice, and adjudicatory reviews, IT for licensing activities, an operator licensing system, scheduler support, and the regulatory infrastructure for licensing activities.

The NRC issues a DC to certify a standard nuclear plant design independent of a specific site. This DC is valid for 15 years. Budgetary resources for licensing during FY 2015 will support the ongoing review of four DCs (mPower, U.S. Evolutionary Power Reactor, U.S. Advanced Pressurized Water Reactor (APWR)), and KHNP/APR-1400), continue ongoing review of one DC renewal (Advanced Boiling Water Reactor (ABWR)), pre-application activities for up to two DC applicants (potential SMR projects), and initiating the review of one new DC (NuScale).

Resources also support license amendments for post-COL activities. The NRC projects that a significant percentage of amendments will be for important or significant design changes associated with resolving first-of-a-kind construction issues. Resources will also continue to support review and evidentiary hearing activities; license-related legal advice and representation, independent advice, and adjudicatory reviews; and the regulatory infrastructure for after licensing is complete.

New reactor licensing resources support incorporating interim staff guidance and lessons learned in regulatory guides and Standard Review Plans; continuing the 5-year update of the standard review plan; and developing and maintaining other staff guidance. Resources continue to support the staff's effort to resolve identified policy and key technical issues facing advanced reactors. In addition, these resources support the implementation of issue resolutions through development of both new and revised rules and guidance documents. Resources also support the development and implementation of the technical bases for anticipated advanced reactor applications.

#### **OVERSIGHT**

Strategic Goal Strategies Supported by Oversight

Safety: To oversee the development and construction of new nuclear power reactors.

Security: To evaluate license applicants' security plans.

For FY 2015, the NRC requests \$32 million, including 175.3 FTE, for oversight activities. This represents an overall funding decrease of \$3.2 million, including 16.8 FTE, when compared with the FY 2014 enacted budget.

The Oversight Product Line provides resources to support construction inspection activities. During FY 2015, NRC will develop and implement construction inspection activities to support inspection of the reactors under construction (Vogtle Units 3 & 4, Summer Units 2 & 3, and Watts Bar Unit 2). Oversight includes resources needed for enforcement-related casework, construction and vendor allegations, and investigations of wrongdoing. The NRC will continue inspection for startup testing of Watts Bar 2 to support operation in FY 2015. Budgetary resources support 30 vendor inspections in FY 2015 to ensure integrity of the supply chain, which would be consistent with the expected increase in the number of suppliers and sites under active construction. The NRC will also continue implementation of a formal program to monitor and evaluate counterfeit, fraudulent, and suspect items.

Oversight seeks to verify that the new reactor construction process assures the adequate protection of public health and safety, protects the environment, and provides high assurance of the security of facilities through verification that plants are constructed to the requirements established during the licensing process.

In FY 2015, resources are needed to continue support for the construction of new reactor simulators at the Technical Training Center and for the maintenance of new and existing licensing examiners.

## RULEMAKING

Strategic Goal Strategies Supported by Rulemaking

Safety: To use sound science and state-of-the-art methods to establish, where appropriate, risk-informed and performance-based regulations.

Security: To use a framework of rules and regulations to guide the security activities of the agency.

For FY 2015, the NRC requests \$2.1 million, including 11.8 FTE, for rulemaking activities. This represents an overall funding decrease of \$0.7 million, including 3.3 FTE, when compared with the FY 2014 enacted budget.

The Rulemaking Product Line supports activities to maintain the safety and security framework of rules, regulatory guidance, and standard review plans. This framework promotes licensee compliance with underlying safety principles and security requirements. In FY 2015, resources support two rules directly related to DC activities, as well as rulemaking for 10 CFR Part 21, "Reporting of Defects and Noncompliance," and the development of associated guidance to, in part, resolve commitments made in response to Inspector General Audits. These resources also support a rulemaking related to amending Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," to

10 CFR Part 50 to incorporate recommendations from the International Commission on Radiological Protection.

### INTERNATIONAL ACTIVITIES

Strategic Goal Strategies Supported by International Activities Safety: To use domestic and international operating experience to inform decision-making. Security: To work with international counterparts to exchange information.

For FY 2015, the NRC requests \$1.5 million, including 8.3 FTE, for International Activities. This represents an overall funding increase of \$0.2 million, including 1.0 FTE, when compared with the FY 2014 enacted budget.

The International Product Line supports the NRC's interface with international counterparts to exchange information, expertise, operating experience, and research results. These activities help the NRC recognize and respond to emerging technical issues and promote best practices for safety and security. Resources support the NRC's continued participation in the Multinational Design Evaluation Program that will continue international exchanges of licensing and construction inspection activities that will potentially increase safety at U.S. sites.

#### RESEARCH

Strategic Goal Strategies Supported by Research Safety: To improve the NRC's regulatory programs and to anticipate and resolve safety issues. Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$8.6 million, including 25.6 FTE, for research activities. This represents an overall funding decrease of \$0.5 million, including a 0.7 FTE, when compared with the FY 2014 enacted budget.

The mission of the NRC's research program is to evaluate and resolve safety issues for nuclear power plants and other facilities and materials that the agency regulates. This includes evaluating existing and potential safety issues; supplying independent expertise, information, and technical judgments to support timely and realistic regulatory decisions; reducing uncertainties in risk assessments; and developing technical regulations and standards.

In FY 2015, new reactors research funding supports the resolution of technical issues in DC reviews and development of regulatory guidance for new reactor licensing. Activities include support for design certification reviews and analysis for large light-water reactors and small modular reactors, including the development of new reactor plant risk models; seismic and structural engineering reviews; independent assessment of flooding hazards; independent assessment of thermal hydraulics system responses and severe accidents; digital instrumentation and control capabilities; and control room habitability. Resources also support the development of guidance for human factors reviews and efforts to maintain existing codes and models.

#### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC continued to progress on the technical and safety reviews of nine COLs, one ESP, and three DCs. In addition, the NRC staff issued the first license amendments and exemptions to the COLs for Vogtle Units 3 and 4 and Summer Units 2 and 3.

The NRC staff completed the final supplemental environmental impact statement for the Fermi Unit 3 COL application and continued to advance its safety and environmental reviews of the PSE&G ESP application.

The NRC continued its efforts to prepare for the future reviews of small modular reactor design and licensing applications. As part of these preparations, the NRC published a design-specific review standard for the mPower reactor design.

The NRC continued the extensive inspection and licensing effort associated with the reactivation of the Tennessee Valley Authority Watts Bar Unit 2 Nuclear Power Plant. The NRC continued oversight of the construction of four reactors at Vogtle Units 3 and 4 and Summer Units 2 and 3, including processing of the first inspections, test, analyses, and acceptance criteria closure notifications.

The NRC completed technical reviews of three Next Generation Nuclear Plant (NGNP) products: (1) "Summary Feedback on Four Key Licensing Issues," (2) "Assessment of White Paper Submittals on Fuel Qualification and Mechanistic Source Terms," and (3) "Assessment of White Paper Submittals on Defense-in-Depth; Licensing-Basis Event Selection and Safety Classification of Structures, Systems, and Components."

The NRC completed two self-assessments in FY 2013: (1) "Post-Combined License Part 52 Implementation Self-Assessment Working Group Report" and (2) "New Reactor Licensing Process Lessons Learned Review: 10 CFR Part 52."

The agency completed a 12-month pilot of the Construction Reactor Oversight Process (cROP) at the four new reactor units under construction. During and after the pilot, data were solicited from internal and external sources to inform a self-assessment of the program. The final report concluded the cROP pilot was successful, and full implementation of the new cROP began on July 1, 2013.

The NRC continues the implementation of the Vendor Inspection Program, including conducting 35 vendor or quality assurance implementation inspections supporting both new and existing reactor licensees.

# **NEW REACTORS OUTPUT INDICATORS**

# **LICENSING**

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	No ESPs planned	No ESPs planned	Review Victoria	Continue Victoria	Continue	Continue PSEG
	for FY 2010.	for FY 2011.	and PSEG	and PSEG	Victoria and	ESP application
			applications*	reviews. Begin	PSE&G reviews,	review and begin
				review of Blue		reviewing Blue
				Castle and		Castle ESP
				Callaway		application.
				applications.		
Actual	Completed	NO ESP's	Continued	Continued review		
	milestones for 2	conducted during	review of the	of the PSEG ESP		
	ESP reviews	FY 2011	PSEG ESP	application. The		
	(Vogtle and		application. The	Victoria County		
	PSE&G.)		Victoria County	ESP application		
			ESP application	was withdrawn in		
			was withdrawn	August 2012.		
			in August 2012.			

<sup>\*</sup>Change in previously reported FY 2012 due to resource planning changes.

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	complete review of ESBWR design certification application (rulemaking) and AP1000 amended application (rulemaking) and continue review of EPR and APWR design certification applications.	Complete review of ESBWR design certification application (rulemaking) and AP 1000 amended application (rulemaking) and continue review of EPR and APWR design certification applications.	Complete rulemaking activities for AP1000 amendment and ESBWR and ABWR AIA amendment. Complete review of EPR design. Begin rulemaking activities for the EPR and the U.S APWR.*	Begin review of KEPCO design certification. Complete milestones necessary to support 1 ABWR design certification renewal. Complete rulemaking for EPR and U.S APWR.*	Continue review of U.S. APWR, KEPCO, and one ABWR DC renewal. Begin milestones necessary to support the second U.S. – ABWR DC renewal. Complete review of U.S. –EPR design and	Complete reviews of EPR and U.S. APWR design certification applications. Continue review one ABWR design certification renewal application. Begin review of second ABWR design
Actual	Completed milestones to support U.S ESBWR, U.SEPR, AP1000 amendment, U.SAPWR	Completed review of ESBWR design certification application (rulemaking) and AP 1000	Completed AP1000 DC amendment and the U.SABWR amendment.	Conducted pre- Continued the ESBWR, U.S. EPR, and US-APWR DC application reviews.	rulemaking. Continue rulemaking activities for U.S. APWR.	certification renewal application.

design, and U.S.amended **ABWR** application (rulemaking) and amendment reviews. continued review of EPR and APWR.

<sup>\*</sup>Change to previously reported FY 2012 and FY 2013 target is because applicant inability to provide complete and timely submittals to allow  $the \textit{ staff to complete safety reviews on the previously agreed upon \textit{ schedules has led to the need to revise completion dates associated with the account of the dates associated with the dates as a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates and the dates are a sociated with the dates are a sociated$ ESBWR, U.S.-EPR, and U.S.-APWR.

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	Complete milestones associated with conducting 20 COL application reviews.	Complete milestones associated with conducting 17 COL application reviews.	Complete milestones associated with conducting 10* continuing COL application reviews*	Complete milestones associated with conducting 10 continuing COL application reviews	Complete milestones associated with the continued review of 10 COL applications.	Complete milestones associated with the continued review of 9 COL applications.
Actual	Completed milestones associated with conducting 13 COL application reviews.	Completed milestones associated with conducting 12 COL application reviews**	Completed milestones associated with 10 active COL application reviews.	Continued 10 active COL application reviews. The Harris COL review was suspended at the applicant's request on May 2, 2013.		

<sup>\*</sup>Change to previously reported FY 2012 target due to resource planning changes. Excludes Watts Bar 2, Bellefonte 1, and Clinch-River.

<sup>\*\*\*</sup>Excludes Watts Bar 2, Bellefonte 1

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator in			Complete	Complete	Complete
	FY 2013			milestones	milestones	milestones
				necessary to	necessary to	necessary to
				support the	support the	support the
				review of 2	review of two	review of two
				design	SMR DC	SMR DC
				certification	applications	applications
				applications.		
Actual				Completed draft		
				Design Specific		
				Review Standard		
				(DSRS), working		
				towards final		
				documentation		

<sup>\*\*</sup>Five of the 17 COLs scheduled for review during FY 2011 remained in a suspended status (outside of NRC's control).

to support the mPower Design Certification review. Began work on the draft NuScale DSRS, which will support their Design Certification.

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator for	-		Complete 90% of	Complete	Complete
	FY 2013			milestones	milestones	milestones
				necessary to	necessary to	necessary to
				support the	support the	support the
				resolution of	resolution of	resolution of
				policy and key	policy and key	policy and key
				technical issues.	technical issues.	technical issues
				In addition,	In addition,	In addition,
				complete 90% of	complete	complete
				milestones	milestones	milestones
				necessary to	necessary to	necessary to
				support	support	support
				implementation	implementation	implementation
				of solutions.	of resolutions.	of resolutions.
Actual				Policy and		
				technical issues		
				were identified		
				for the review of		
				Small Modular		
				Reactors		
				(SMRs). A plan		
				was developed to		
				address 48		
				technical issues		
				by revising		
				Standard Review		
				Plan (SRP)		
				Sections or to		
				create Interim		
				Staff Guidance		
				(ISG). Fifty		
				technical issues		
				were completed		
				achieving 104%.		

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator	in		Begin pre-	Complete	Complete
	FY 2013			application	milestones	milestones
				interactions with	necessary to	necessary to
				prospective DC	support pre-	support pre-
				applicants.	application	application
					activities for two	activities for two
					DC applications	DC applications
Actual				Continued pre-		
				application		
				activities with		
				applicants.		

Review SMR COL and Construction Permit Applications on the Schedules Negotiated with the Applicants						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator in			Complete	Complete	Complete
	FY 2013			milestones	milestones	milestones
				necessary to	necessary to	necessary to
				support the	support the	support the
				review of the	review of the	review of the
				TVA construction	TVA Construction	TVA Construction
				permit	Permit	Permit
				application.		
Actual				No applications		
				were submitted		
				and thus no		
				interim schedule		
				milestones were		
				developed.		

# **O**VERSIGHT

	Complete all vendor inspections as scheduled and resourced							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	Complete 10	Complete 15	Complete 15	Complete 30	Complete 30	Complete 30		
	domestic and	domestic and	domestic and	domestic and	domestic and	domestic and		
	international	international	international	international	international	international		
	vendor	vendor	vendor	vendor	vendor	vendor		
	inspections.	inspections	inspections	inspections.	inspections.	inspections.		
Actual	Completed 11	Completed 15	Completed 27	Completed 35				
	vendor	domestic and	vendor	vendor				
	inspections, 6	international	inspections	inspections				
	quality assurance	vendor						
	implementation	inspections.						
	inspections, and							
	3 aircraft impact							
	assessment							
	inspections							

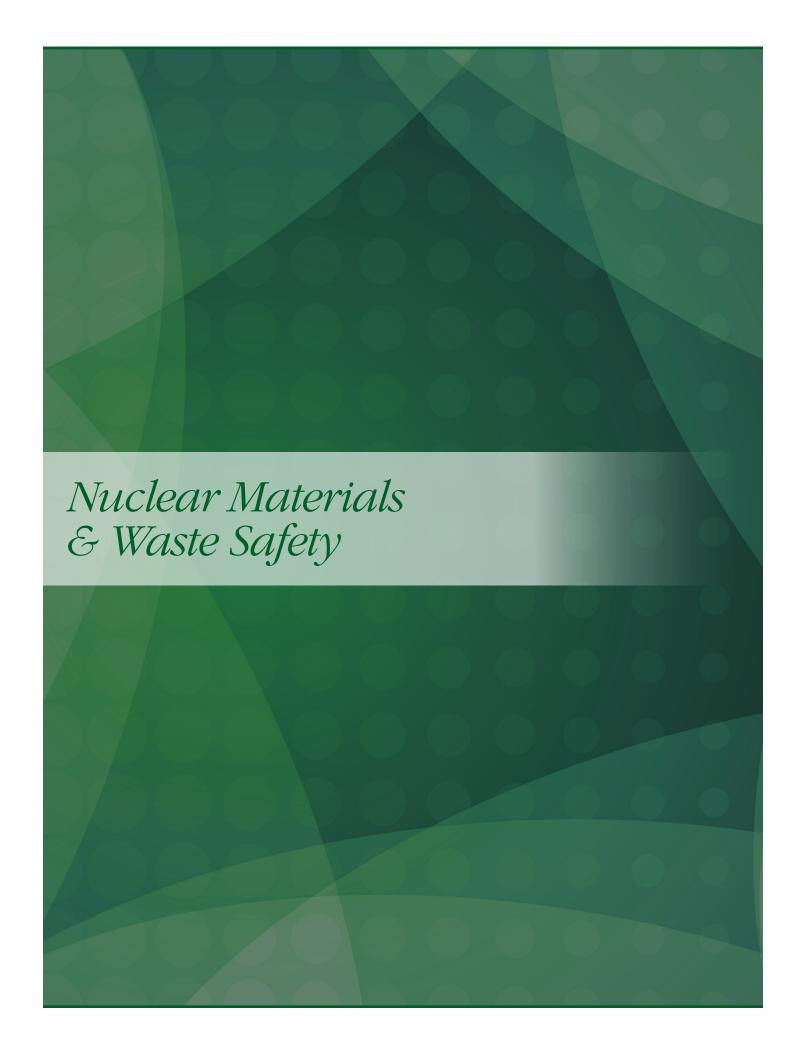
## **RESEARCH**

Timeliness of completing actions on critical research program*							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	New indicator	for				90% of major	
	FY 2015					milestones met	
						on or before	
						their due date	
Actual	New indicator	for					
	FY 2015						

<sup>\*</sup>Critical research programs typically respond to high priority needs from the Commission and NRC's licensing organizations. Critical research programs will be the highest priority needs identified at the beginning of each fiscal year.

Acceptable technical quality of agency research technical products*						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator f	for				Combined score
	FY 2015					≥ 3.75
Actual	New indicator f	for				
	FY 2015					

 $<sup>{\</sup>it *The NRC has developed a process to measure the quality of research products on a 5-point scale using surveys of end-users to determine the}\\$ 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.



# **NUCLEAR MATERIALS AND WASTE SAFETY**

**NUCLEAR MATERIALS AND WASTE SAFETY STRATEGIC GOALS** 

Safety: To ensure adequate protection of public health and safety and the environment. Security: To ensure adequate protection in the secure use and management of radioactive materials.

The Nuclear Materials and Waste Safety Program encompasses the NRC efforts to ensure that nuclear materials are used and waste is managed in a manner that adequately protects the health and safety of the public, protects the environment, and that promotes the common defense and security. Through this program, the NRC regulates uranium processing and fuel facilities; nuclear materials users (medical, industrial, research, and academic); spent fuel storage; transportation of radioactive materials; decontamination and decommissioning of facilities; and low-level and high-level radioactive waste. This program contributes to the NRC's Safety and Security goals through the activities of the Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, and Decommissioning and Low-Level Waste Business Lines, which license and regulate nuclear materials and waste to ensure their safe and secure handling. The Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Nuclear Waste Policy Act of 1982; and the Energy Policy Act of 2005 are the foundations of the NRC's regulatory authority.

The nuclear fuel cycle process includes extraction of uranium from the ore, conversion of the uranium into a form suitable for enrichment, enrichment of the uranium to a level and type suitable for nuclear fuel, and use of the enriched uranium in fabricating fuel assemblies for use in nuclear reactors. The NRC licenses, oversees, and regulates the facilities involved in the process. Nuclear materials have many industrial, medical, and academic uses outside the nuclear fuel cycle. The NRC licenses, oversees, and regulates large and small users of nuclear materials such as radiographers, hospitals, private physicians, nuclear gauge users, irradiators, and universities. Licensees with Special Nuclear Material (SNM) verify and document their inventories in the Nuclear Materials Management and Safeguards System (NMMSS) database. which tracks material transfers and inventories. Both the NRC and the Agreement States carry out their respective radiation safety regulatory programs for nuclear materials users under the framework of the National Materials Program (NMP). The NMP covers activities solely carried out by the NRC and 37 Agreement State programs, such as licensing, inspection, response to incidents, staffing and training, and enforcement and investigation.

About three million packages of radioactive materials are shipped each year in the United States by road, rail, air, or water. Regulating the safety of commercial radioactive material shipments is the joint responsibility of the NRC and the U.S. Department of Transportation (DOT). The NRC ensures transportation safety by reviewing and certifying shipping packages for the commercial transport of large quantities of radioactive materials. In addition, the NRC reviews and certifies shipping package designs for the U.S. Department of Energy's (DOE's) non-commercial transuranic waste shipments.

The NRC ensures safety and security in the management and disposition of radioactive waste. Nuclear waste is categorized as either low-level radioactive waste (LLW) or high-level radioactive waste (HLW). The NRC and the Agreement States regulate the management and disposition of LLW. The NRC or Agreement States license, oversee, and regulate commercial LLW disposal facilities.

The majority of HLW is the irradiated fuel from commercial nuclear power reactors. The NRC licenses, oversees, and regulates the management and disposition of HLW from commercial nuclear power plants and other reactors. Irradiated fuel is initially stored in pools at reactor sites; after an appropriate time period, it is moved to dry storage. Dry storage is done in casks, or canisters, certified by the NRC for such use. These casks are stored at independent spent fuel storage installations licensed and regulated by the NRC.

Decommissioning is the safe removal of a nuclear facility from service and reduction of residual radioactivity to a level that permits release of the property and termination of the NRC license. The NRC and Agreement States regulate the decontamination and decommissioning of uranium recovery facilities, materials and fuel cycle facilities, nuclear power plants, and research and test reactors.

Security efforts in this program include safeguards and security reviews and inspections, force-on-force (FOF) exercises for certain fuel cycle facilities, regulatory improvements, and implementation of a national registry (i.e., the National Source Tracking System (NSTS)) of radioactive sources of concern, and the Integrated Source Management Portfolio (ISMP). The NRC will continue to maintain a high state of incident response readiness and coordination with other Federal, State, and local agencies.

The agency's significant accomplishments are reported in the NRC's FY 2013 Performance and Accountability Report.

Nuclear Materials and Waste Safety (Dollars in Millions)							
	FY 2014 Enacted		FY 2015 Request		Delta FY 2015 – FY 2014		
<b>Business Line</b>	\$M	FTE	\$M	FTE	\$M	FTE	
Fuel Facilities	54.9	209.3	61.1	237.9	6.2	28.6	
Nuclear Materials Users	90.2	324.8	86.5	315.2	(3.7)	(9.6)	
Spent Fuel Storage and Transportation	47.6	166.1	45.3	163.0	(2.3)	(3.1)	
Decommissioning and Low-Level Waste	39.8	143.2	39.3	144.2	(0.5)	1.0	
Total	\$232.5	843.5	\$232.2	860.4	(\$.3)	16.9	

Numbers may not add due to rounding.

## PROGRAM RESOURCE SUMMARY

The fiscal year (FY) 2015 proposed budget request for Nuclear Materials and Waste Safety is \$232.2 million, which includes \$92.0 million in contract support and travel, and \$140.2 million in salaries and benefits to support 860.4 Full Time Equivalents (FTE). This would fund activities in the Fuel Facilities, Nuclear Materials Users, Spent Fuel Storage and Transportation, and Decommissioning and LLW Business Lines. This funding level represents a decrease of \$0.3 million, but an increase of 16.9 FTE, when compared with the FY 2014 enacted budget.

**FUEL FACILITIES** 

Fuel Facilities by Product Line (Dollars in Millions)							
	FY 2014			FY 2015		Delta	
	En	acted	Rec	<sub>l</sub> uest	FY 2015 – FY 2014		
Product Line	\$M	FTE	\$M	FTE	\$M	FTE	
Licensing	4.9	17.8	11.3	52.0	6.4	34.2	
Oversight	20.6	113.2	18.2	100.6	(2.4)	(12.6)	
Rulemaking	2.6	13.0	3.0	16.2	0.4	3.2	
International Activities	2.1	11.6	1.8	10.2	(0.3)	(1.4)	
Research	0.1	0.7	0.1	0.7	0.0	0.0	
Generic HLS	2.9	5.3	3.5	5.0	0.6	(0.3)	
Event Response	0.6	3.5	0.6	3.4	(0.0)	(0.1)	
Subtotal	\$33.8	165.1	\$38.5	188.2	\$4.7	23.1	
Corporate Support	21.1	44.2	22.6	49.7	1.5	5.5	
Total	\$54.9	209.3	\$61.1	237.9	\$6.2	28.6	

Numbers may not add due to rounding.

МТ ND SD NE ТΧ Uranium Hexafluoride Conversion Facility (1) Uranium Fuel Fabrication Facility (6) A Gas Centrifuge Uranium Enrichment Facility (3) Mixed Oxide Fuel Fabrication Facility (1) Laser Separation Enrichment Facility (1) A Gaseous Diffusion Uranium Enrichment Facility (1) Uranium Hexafluoride Deconversion Facility (1)

Figure 4. Locations of Major U.S. Fuel Cycle Facility Sites

The Fuel Facilities Business Line activities ensure that fuel cycle facilities are licensed and operated in a manner that adequately protects the health and safety of the public, protects the environment, and promotes the common defense and security. Once uranium ore has been mined and milled (uranium is extracted from the ore), it moves on to conversion, enrichment, and fuel fabrication facilities. Conversion of the uranium changes it into a form suitable for enrichment, enrichment processes the uranium to a level and type suitable for nuclear fuel, and fabrication uses the enriched uranium to make fuel assemblies for nuclear reactors. The NRC

licenses, oversees, and regulates the fuel cycle facilities, such as conversion, enrichment, and fuel fabrication facilities, as well as research and pilot facilities. There are five licensed uranium enrichment facilities (although only one is operating) and seven licensed major fuel fabrication and production facilities in the United States. Additionally, resources support licensing and oversight to support DOE plans for the Mixed Oxide (MOX) Fuel Fabrication Facility.

In FY 2015, the NRC will oversee the construction of the URENCO USA facility, and the International Isotopes (INIS) depleted uranium deconversion facility. The NRC will continue to oversee the operation of the other fuel cycle facilities.

The NRC will review a new fuel facility license application and will continue to evaluate routine license amendments to support changes in the plans for construction of approved facilities and in the operation of existing licensed facilities. Licensed fuel facilities possess Special Nuclear Material (SNM) such as plutonium and enriched uranium. These SNM licensees verify and document their inventories and material transfers in the Nuclear Material Management and Safeguard System (NMMSS) database.

Fuel Facilities Business Line activities also include the Nuclear Materials Information Program (NMIP) and the interagency agreement with DOE for certification and accreditation of classified computer systems at enrichment facilities. Other activities include environmental, emergency preparedness, and licensee performance reviews; legal advice and representation; adjudicatory hearing-related activities; independent review and advice; security support for licensing activities; inspection oversight; allegations and enforcement activities; rulemaking; international cooperation and assistance; International Atomic Energy Agency missions; export and import licensing; and treaties, agreements, and conventions.

The NRC has organized the activities of the Fuel Facilities Business Line into product lines that best support Safety and Security strategies and accomplish strategic outcomes as they relate to fuel cycle facilities. The resources requested support all direct aspects of planned activities within the following seven product lines: Licensing, Oversight, Rulemaking, Research, International Activities, Generic Homeland Security, and Event Response.

The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of the agency's Strategic Outcomes.

## **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase to review a new uranium enrichment plant license application from GE-Hitachi and a possible amendment to expand operations at International Isotopes. Resources decrease to reflect the progress of activities in the Revised Fuel Cycle Oversight Program project plan and a comparability adjustment to properly reclassify counterintelligence activities to the Generic Homeland Security product line. The number of FTE decreases as a result of delays in construction activities, streamlining of the operational readiness review planned for URENCO USA, and reduction of activities at the Paducah Gaseous Diffusion Plant.

#### LICENSING

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY LICENSING

Safety: To develop, maintain, and implement licensing and regulatory programs for fuel facilities material, spent fuel management, waste management, uranium recovery, and decommissioning. Security: To review security plans and changes for consistency with security requirements.

For FY 2015, the NRC requests \$11.3 million, including 52.0 FTE, for licensing activities. This represents a funding increase of \$6.4 million, including 34.2 FTE, when compared with the FY 2014 enacted budget.

Activities under the Licensing Product Line confirm that requests for new facilities and license renewals and amendments are consistent with the NRC's rules and regulations that strive to ensure the adequate protection of the public health and safety, protect the environment, and promote the common defense and security. Licensing provides resources for the following:

- Licensing actions for conversion/deconversion, enrichment, fuel fabrication, and greater than critical mass facilities,. Resources allow project management, technical reviews, and financial assurance and decommissioning plan reviews of all new applications, amendments, and renewals. In addition, resources support interagency agreements for classified computer networks. Resources also allow members and staff of the Advisory Committee on Reactor Safety to provide timely and independent advice to the Commission on matters related to the fuel cycle. Further, resources support adjudicatory-hearing-related activities and legal advice and representation on issues associated with licensing.
- Licensing support and reviews, including support to assist in the review of environmental reports and preparation of environmental impact statements, material control and accounting (MC&A), safeguards, and criticality safety evaluations.
- Emergency preparedness licensing reviews for operating fuel cycle facilities. Resources provide continued support for the annual reviews of emergency plans for fuel fabrication facilities and for the review and analysis of licensee amendment requests.
- Environmental reviews for fuel cycle facility license applications, license renewals, amendments, and pre-application activities. Additionally, resources support reviews for license transfer applications, provide hearing support for license applications, and provide support during license renewal. Examples include one complex amendment (potentially Westinghouse Electric Corporation's dry conversion change in the use of Nuclear Fuel Services, Inc.'s Blended Low-Enriched Uranium); a license application under 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," for a source detection experiment/testing facility.
- Regulatory activities related to agency follow-up to the Fukushima event, including actions from the Fukushima Near-Term Task Force and inspections conducted under Temporary Instruction 2600/015, "Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities."
- Security support for licensing activities (includes fuel manufacturing facilities; new enrichment technologies; and enrichment and conversion facilities), including interoffice coordination and support for the increased number of operating facilities such as those by Louisiana Energy Services (LES) and United States Enrichment Corp. (USEC).

#### **OVERSIGHT**

### STRATEGIC GOAL STRATEGIES SUPPORTED BY OVERSIGHT

Safety: To oversee licensee safety performance through inspections, investigations, enforcement, and performance assessment activities.

Security: To oversee licensee security performance through inspections and force-on-force exercises.

For FY 2015, the NRC requests \$18.2 million, including 100.6 FTE for oversight activities. This represents a funding decrease of \$2.4 million, including 12.6 FTE, when compared with the FY 2014 enacted budget.

The oversight process ensures that licensees take appropriate actions to maintain acceptable operating performance to ensure the adequate protection of the public health and safety, protect the environment, and promote the common defense and security. The oversight process also ensures that facilities under construction are built in accordance with NRC requirements.

The Oversight Product Line supports the following:

- Overall management of the oversight program for fuel facilities, including: development and maintenance of policies, programs, and procedures for inspections of operating facilities and facilities under construction; assessment of the implementation of the inspection program; development of a fuel cycle operating experience program; and development of a risk-informed fuel cycle oversight process (FCOP). Resources also support coordination of inspection procedures and event coordination. Resources support regional baseline and reactive inspections of operating fuel facilities and facilities under construction. This includes inspections of the Lead Cascade, Babcock and Wilcox, Nuclear Fuel Services, Paducah GDP, Honeywell, Westinghouse, Global Nuclear Fuels, AREVA-Richland, URENCO USA, Global Laser Enrichment the INIS facilities and MOX (as needed). Resources also support the construction oversight and operational readiness for the INIS. Resources allow regional support to FCOP and infrastructure enhancements and for regional inspections at General Electric-Vallecitos.
- Review of investigation reports, processing of enforcement actions, and oversight of project/contract management of the external safety culture and alternative dispute resolution (ADR) programs.
- Maintenance of baseline inspections for safety, security, physical projection, FOF and reactive inspections of operating facilities. Inspection oversight will continue as LES and INIS begin or continue to construct their facilities. Inspection frequency has increased for these facilities based on concerns about control of access to sensitive information. In addition, the NRC is committed to enhance FCOP to be more effective and efficient.

### RULEMAKING

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY RULEMAKING

Safety: To maintain a framework of rules, regulatory guidance, and standard review plans that promote licensee compliance with underlying safety principles.

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$3.0 million, including 16.2 FTE, for rulemaking activities. This represents a funding increase of \$0.4 million, including 3.2 FTE, when compared with the

FY 2014 enacted budget. Resources provide support for rulemaking in security-related areas, including enhanced security at fuel cycle facilities (CAT I and III), material categorization, the 10 CFR Part 26 Fitness for Duty Program (FFD), and fingerprinting for Safeguards Information access. This supports guidance development, outreach, and work with the interagency on material attractiveness. Further, resources will support proposed rule development and updating regulatory guidance for the enhancements to fuel cycle and special nuclear material security.

#### RESEARCH

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY RESEARCH

Safety: To improve the NRC's regulatory programs and to anticipate and resolve safety issues. Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$0.1 million, including 0.7 FTE, for research activities. This reflects no change in resources when compared with the FY 2014 enacted budget. The Research Product Line supports the NRC's regulatory mission by providing technical advice, tools, and information to identify and resolve safety issues and make regulatory decisions. This includes conducting confirmatory experiments and analyzing and preparing the agency for the future by evaluating the safety aspects of new technologies. Resources support user needs related to the FCOP and cable fire testing for fuel facilities.

#### INTERNATIONAL ACTIVITIES

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY INTERNATIONAL ACTIVITIES

Safety: To use international collaboration and coordination to inform decision-making. Security: To promote U.S. national security interests and nuclear proliferation policy objectives for NRC-licensed imports and exports of source and special nuclear materials and nuclear equipment.

For FY 2015, the NRC requests \$1.8 million, including 10.2 FTE, for international activities. This represents a funding decrease of \$0.3 million, including 1.4 FTE, when compared with the FY 2014 enacted budget.

NRC works with international counterparts to exchange information, expertise, operating experiences, and ongoing research to recognize and respond to emerging technical issues and promote best practices for safety and security. The International Activities Product Line supports application of the International Atomic Energy Agency (IAEA) safeguards to fuel cycle facilities, international coordination, and assistance on next generation safeguards designs.

The International Activities Product Line supports the following:

- Activities that include obligation tracking reviews, approvals, and treaty compliance activities that support the Non-Proliferation Treaty and the Additional Protocol Treaty for all NRC licensees (including licensees in Agreement States).
- Activities involved in import/export license applications reviews, DOE Part 810, and import/export of technology/equipment.
- Training and assistance to other countries through existing multilateral and bilateral agreements, as well as bilateral and multilateral discussions with and support for other countries and international organizations on physical protection matters.

Bilateral visits regarding physical protection conducted with other countries possessing or obtaining U.S. origin SNM to conduct import/export licensing reviews.

## **GENERIC HOMELAND SECURITY**

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY GENERIC HOMELAND SECURITY

Safety: To conduct NRC safety, security, and emergency preparedness programs in an integrated manner.

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

In FY 2015, the NRC requests \$3.5 million, including 5.0 FTE, for generic homeland security activities. This represents a funding increase of \$0.6 million, but a decrease of 0.3 FTE, when compared with the FY 2014 enacted budget.

The Generic Homeland Security Product Line supports security activities related to intergovernmental coordination and communication, including activities associated with the development of counterintelligence programs. It also supports security activities that are neither plant-specific nor associated with a rulemaking, licensing, inspection, or oversight.

Resources support the NMMSS database, NMIP, and a contract with the Department of the Army to monitor domestic travel of classified technology. Resources also support activities related to intergovernmental coordination and cooperation and communication on homeland security matters.

### **EVENT RESPONSE**

### STRATEGIC GOAL STRATEGIES SUPPORTED BY EVENT RESPONSE

Safety: To effectively respond to events at NRC-licensed facilities and other events of national interest, including maintaining and enhancing the NRC's critical incident response and communication

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

In FY 2015, the NRC requests \$0.6 million, including 3.4 FTE for event response activities. This reflects a decrease of 0.1FTE in resources when compared with the Fy 2014 enacted budget. The Event Response product line supports efforts to develop and enhance the fuel facilities event response program, plans, and procedures. Resources provide for one full-participation emergency preparedness exercise with an Operating Fuel Facility. Resources also support the development and maintenance of the response capability associated with incidents related to fuel facilities (i.e., emergency response coordinators, a training and qualification program, procedures, intra- and interagency coordination, and outreach; as well as incident response actions for fuel facility licensees). Additional resources have been added to maintain the "Safer" Program which will be used to predict chemical effects in drills and in real events at fuel facilities.

## SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC issued a license under 10 CFR Part 40, "Domestic Licensing of Source Material," to International Isotopes Fluorine Products, based in part on an integrated safety analysis (ISA), for a first-of-a-kind commercial depleted uranium deconversion facility, on October 2, 2012. The NRC issued a safety evaluation report and order on January 31, 2013. The license transfer from USEC Inc. to American Centrifuge Operating, LLC, for the Lead Cascade and American Centrifuge Plant was completed on February 8, 2013.

In response to the events at Fukushima, the NRC issued Temporary Instruction (TI) 2600/015, "Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities," on September 30, 2011. The agency completed TI-related inspection activities at seven operating fuel cycle facilities by May 2012. The purpose of these inspections was to assess the effectiveness of plant-specific mitigation strategies at each facility. The inspection results were documented in facility-specific inspection reports.

With the exception of Honeywell, a 10 CFR Part 40 licensee, the staff concluded that the established strategies and other measures to deal with emergencies resulting from credible natural events were generally effective and, if properly implemented, would likely continue to be effective.

As a result of the inspections at Honeywell, the NRC identified the potential for a large release of uranium hexafluoride and hydrogen fluoride during a credible seismic event. The NRC determined that Honeywell might not have appropriately evaluated and considered the range of credible natural event scenarios during completion of its hazards analysis. The NRC issued a confirmatory order that documented Honeywell's agreement to implement the corrective actions identified in the order before authorizing restart. Honeywell implemented seismic modifications to its facility and performed additional analyses. Based on its technical review and subsequent inspections, the NRC authorized restart of the facility in July 2013.

The NRC took steps to enhance the effectiveness of the NRC Fuel Cycle Program by strengthening the program functions and infrastructure and implementing the Revised Fuel Cycle Oversight Process (RFCOP) Project Plan. The NRC is implementing Phase I, "Corrective Action Program, Issue Characterization, and Inspection Program Improvements," of the RFCOP Project Plan. The agency identified that revision of the fuel cycle oversight process has been recognized as a focus area meriting additional management attention.

The cyber security staff has worked to complete assessments for what is needed to protect fuel cycle facilities from potential cyber-attacks. The staff is developing options for the Commission to consider as it decides on future regulatory actions.

## **FUEL FACILITIES OUTPUT INDICATORS**

#### **LICENSING**

Timeliness Of Completing "Complex" Fuel Cycle Licensing Actions, From The Date Of Acceptance, Excluding Request For Additional Information With An Assumption Of 30-Day Response To A Request For Additional Information.\*\*\*\*

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	100% ≤ 1.5 yrs.	100% ≤ 1.5 yrs.	100% ≤ 1.5 yrs.	100% <u>&lt;</u> 1.5 yrs.	100% <u>&lt;</u> 1.5 yrs.	****Discontinued
Actual	100% ≤ 1.5 yrs.	98% ≤ 1.5 yrs.*	96% ≤ 1.5 yrs.**	93% ≤ 1.5 yrs***		

<sup>\*</sup>The late licensing action was a complex review which included 4 separate actions. The licensee did not provide the final version in response to RAIs until late in the process (500 days). A field verification was required following receipt of the final documents, and the action was closed in 599 days.

<sup>\*\*\*\*</sup>Indicator to be discontinued in FY15 and replaced with the new indicator "Complete FCSS Licensing Reviews Within Timeliness Goals" below to be more consistent with licensing metrics reported in the Spent Fuel Storage and Transportation, Material Users, and Operating Reactors business lines.

Timeliness	Timeliness Of Completing "Non-Complex" Fuel Cycle Licensing Actions (E.G., Amendments And Reviews) From The Date Of Acceptance, Including A 30-Day Response For A Request For Additional Information.									
	Incl	uding A 30-Day Resp	onse For A Request F	or Additional Inform	ation.					
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	85% ≤ 150 days	85% ≤ 150 days	85% ≤ 150 days	85% ≤ 150 days	85% ≤ 150 days	*Discontinued				
	100% < 1 year	100% < 1 year	100% < 1 year	100% < 1 year	100% < 1 year					
Actual	92% ≤ 150 days	92% ≤ 150 days	93% ≤150 days	91% ≤150 days						
	100% < 1 year	100% < 1 year	100% < 1 yr	100% < 1 yr						

<sup>\*</sup> Indicator to be discontinued in FY15 and replaced with the new indicator "Complete FCSS Licensing Reviews Within Timeliness Goals" below to be more consistent with licensing metrics reported in the Spent Fuel Storage and Transportation, Material Users, and Operating Reactors business lines.

Complete Fuel Cycle Safety and Safeguards Licensing Reviews Within Timeliness Goals*							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	New indicator in					80% ≤ 150 days	
	FY15					100% < 1.5 year	
Actual						,	

<sup>\*</sup>Replaces former output indicators on timeliness of complex and non-complex licensing actions to remove complexity, streamline reporting, and increase reporting efficiency. It is also consistent with licensing metrics reported in the Spent Fuel Storage and Transportation, Material Users, and Operating Reactors business lines.

	New Fuel Facilities hearing support*								
	FY 2010 FY 2011 FY 2012 FY 2013 FY 2014 FY 2015								
Target	New efficiency	Actual hours	Actual hours	Actual hours	Actual hours	**Discontinued			
	indicator to begin	expended on	expended on	expended on	expended on				
	in FY 2011	major tasks in	major tasks in	major tasks in	major tasks in				
		support of	support of	support of	support of				

<sup>\*\*</sup>The late licensing action was due to the management decision to focus on higher priority licensing working, challenging and contentious nature of the safety and environmental reviews, extensive stakeholder interactions, and changing expectations in the depth and detail of the Safety Evaluation Report. Staff is developing and implementing Lessons Learned to improve the license renewal process and other significant licensing actions.

<sup>\*\*\*</sup>For FY 2013, five complex licensing actions missed the timeliness metric. One complex licensing action (Babcock & Wilcox Nuclear Operations Group (B&W NOG) license amendment) was completed in the first quarter and four others (Honeywell Pond Closure Request and license renewals for NIST, Purdue, and Rensselaer Polytechnic Institute License) were completed in the fourth quarter.

	licensing board	licensing board	licensing board	licensing board
	hearings as	hearings as	hearings as	hearings as
	documented in	documented in	documented in	documented in
	the Fuel Cycle	the Fuel Cycle	the Fuel Cycle	the Fuel Cycle
	Safety and	Safety and	Safety and	Safety and
	Safeguards	Safeguards	Safeguards	Safeguards
	Division	Division	Division	Division
	Operating Plan	Operating Plan	Operating Plan	Operating Plan
	will not exceed	will not exceed	will not exceed	will not exceed
	the projected	the projected	the projected	the projected
	hours by more	hours by more	hours by more	hours by more
	than 10	than 10	than 10	than 10
	percent.*	percent.*	percent.*	percent.*
Actual	Target met	Target met	Target met	

<sup>\*</sup>Targets, baselines, and calculation methods are under development and indicator may be revised.

#### **OVERSIGHT**

	Timeliness In Completing Reviews For Technical Allegations.									
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	90% ≤ 150 days	90% ≤ 150 days	90% ≤ 150 days	90% <u>&lt;</u> 150 days	90% <u>&lt;</u> 150 days	90% <u>&lt;</u> 150 days				
	95% ≤ 180 days	95% ≤ 180 days	95% ≤ 180 days	95% < 180 days	95% < 180 days	95% < 180 days				
	100% ≤ 360 days	100% ≤ 360 days	100% ≤ 360 days	100% <u>&lt;</u> 360 days	100% <u>&lt;</u> 360 days	100% <u>&lt;</u> 360 days				
Actual	81% ≤ 150 days *	97% ≤ 150 days	94% ≤ 150 days	100% ≤ 150 days						
	96% ≤ 180 days	98% ≤ 180 days	97% ≤ 180 days	100% ≤ 180 days						
	100% ≤ 360 days	100% ≤ 360 days	**97% ≤ 360	100% ≤ 360 days						
			days							

<sup>\*</sup>This metric was not met because allegations in the first quarter were not being closed in ≤ 150 days. Three of the four were impacted by regional staff reassignments and case complexities requiring substantial review by staff and management. The fourth case involved issues of dual regulation between the NRC and the U.S. Environmental Protection Agency (EPA) and required extensive research of EPA requirements and  $communications\ with\ State\ representatives.\ The\ Region\ focused\ attention\ in\ this\ area\ throughout\ the\ remainder\ of\ FY\ 2010\ (closed\ all\ but\ one\ property)$ fuel facility allegation in the second and third quarters in ≤ 150 days), but was ultimately unable to meet the metric, primarily due to the considerable staff and management effort required to evaluate three new fuel facility allegations in the fourth Quarter of FY 2010 that each involved unusually large numbers of concerns, causing the time needed for closure to be > 150 (but < 180) days.

<sup>\*\*</sup>Allegations referred to OE by OIG were misplaced by OE in mid-October 2010 resulting in extensive delay (13+ months) in allegation processing. In January 2012, the package from OIG was found and reassigned to Region II. Both allegations were closed by Region II in February 2012. After discovery, the OE Allegation Program staff discussed the occurrence with OIG, RII, and the agency Allegation Coordinators (OACs) and the Director OE, prepared a memo to all OE staff, reminding them of the event, staff responsibilities and actions to prevent reoccurrence.

Percentage C	Percentage Of Operating Fuel Facilities For Which The Core Inspection Program Was Completed As Planned During The Most Recently Ended								
	Inspection Cycle. *								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	New indicator	in		100%	100%	100%			
	FY 2013								
Actual				100%					

<sup>\*</sup>Replaces former output indicators on core and reactive inspection modules and timeliness of safety and safeguards inspection modules.

<sup>\*\*</sup>Indicator to be discontinued in FY15. It has not been found to be an effective indicator. . It's not possible to accurately project hours needed to support licensing board hearings because hearings can be requested by any person whose interest may be affected by a proceeding and who desires to participate as a party. The staff can't accurately predict when an individual will submit a hearing petition, and therefore can't project the hours needed to support hearings in a given fiscal year.

## **EVENT RESPONSE**

	Emergency Response Performance Index.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	New indicator in					100%			
	FY 2015								
Actual	New indicator in								
	FY 2015								

<sup>\*</sup>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.

## **NUCLEAR MATERIALS USERS**

Nuclear Materials Users by Product Line (Dollars in Millions)							
	FY 2	2014	FY 2	2015	De	lta	
	Ena	cted	Req	uest	FY 2015 - FY 2014		
Product Line	\$M	FTE	\$M	FTE	\$M	FTE	
Licensing	13.0	67.6	13.4	68.9	0.4	1.3	
Oversight	18.0	89.9	18.2	89.0	0.2	(0.9)	
Rulemaking	2.7	14.7	2.9	14.1	0.2	(0.6)	
International Activities	2.4	13.6	2.5	13.7	0.0	0.0	
Research	1.3	3.7	0.8	2.5	(0.5)	(1.2)	
Generic HLS	12.6	25.6	11.6	19.9	(1.0)	(5.6)	
Event Response	0.9	5.1	0.9	5.1	0.0	0.0	
State, Tribal & Federal Pgms.	7.3	37.7	7.7	39.3	0.4	1.6	
Subtotal	\$58.3	257.9	\$58.0	252.4	(\$0.3)	(5.4)	
Corporate Support	31.9	66.9	28.5	62.8	(3.4)	(4.1)	
Total	\$90.2	324.8	\$86.5	315.2	(\$3.7)	(9.6)	

Numbers may not add due to rounding.

Nuclear materials have many industrial, medical, and academic uses. The NRC licenses, oversees, and regulates large and small users of nuclear materials such as radiographers, hospitals, private physicians, nuclear gauge users, irradiators, and universities.

Nuclear Materials Users activities support the licensing, inspection, event evaluation, research, incident response, allegation, enforcement, and rulemaking to maintain the regulatory safety and security infrastructure needed to process and handle nuclear materials. The agency's safety and security activities include completion of approximately 2,000 materials licensing actions and 900 routine health and safety inspections. Work will also be conducted on approximately 3 to 4 active materials safety rulemakings.

The Agreement State program has been in existence since 1959 with the adoption of Section 274 of the Atomic Energy Act (AEA). At present, there are 37 Agreement States. Under Section 274 of the AEA, the NRC has programmatic oversight responsibility to periodically review the actions of the Agreement States to ensure compliance with the requirements of the AEA to maintain adequate and compatible programs. The review process under the Integrated Materials Performance Evaluation Program (IMPEP) is conducted with State staff participation.

Nuclear Materials Users activities include reviews and issuance of NRC import/export authorizations, materials-related wrongdoing investigations, adjudicatory hearings for materials licensing and enforcement proceedings, technical training, and continuous improvements and centralized oversight of information technology and information management.

Nuclear Materials Users security activities include the implementation and operation of a national registry to improve control of radioactive sources of concern and to prevent their malevolent use. The Integrated Source Management Portfolio (ISMP) contract has integrated the three core systems consisting of the National Source Tracking System (NSTS), Web-Based Licensing (WBL), and the License Verification System (LVS). Together these systems will license and track sources and other radioactive materials under one management mechanism. Further, security activities include conducting inspections of security activities at materials facilities with radioactive materials in quantities of concern, and pre-licensing inspections of new materials license applicants. All of these activities strengthen controls for the possession, handling, import, and export of nuclear materials. In addition, resources will be used to conduct NRC's Agreement State liaison activities regarding enhanced control and security actions for materials licensees, as well as cooperative efforts and liaison with all State and local governments, and Native American Tribal governments, in matters related to homeland security for nuclear waste and materials.

The NRC has organized Nuclear Material Users activities into product lines that best support safety and security strategies and impact strategic outcomes as they relate to materials licensing, inspection, and Agreement State activities. The resources requested support all direct aspects of Nuclear Materials Users within the following eight product lines: Licensing; Oversight; Rulemaking; International Activities, Research; Generic Homeland Security; Event Response; and State, Tribal, and Federal Programs. The efforts under Nuclear Materials Users are designed to ensure that nuclear materials are licensed and used in a manner that adequately protects the health and safety of the public, protects the environment, and promotes common defense and security.

The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of its Strategic Outcomes.

## **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources decrease due to a reduction in agency overhead and the reclassification of generic homeland security resources within the budget structure.

## LICENSING

## STRATEGIC GOAL STRATEGIES SUPPORTED BY LICENSING

Safety: To develop, maintain, and implement licensing and regulatory programs for fuel facilities, materials, spent fuel management, waste management, uranium recovery, and decommissioning activities.

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees, Federal, State, local, and Tribal authorities.

For FY 2015, the NRC requests \$13.4 million, including 68.9 FTE, for licensing activities. This represents a funding increase of \$0.4 million, including 1.3 FTE, when compared with the FY 2014 enacted budget.

The Licensing Product Line supports completion of approximately 2,000 materials licensing actions (new applications, amendments, renewals, and terminations) in FY 2015. The agency will be able to continue implementing the recommendations for enhanced security for licensed activities. Licensing confirms that requests to use nuclear materials or modify existing uses provide an adequate margin of safety and security consistent with the NRC's rules and

regulations to ensure the adequate protection of the public health and safety, protect the environment, and promote the common defense and security. Resources are also budgeted over the planning period for legal assistance supporting materials licensing. In FY 2015, the agency supports activities related to adjudicatory hearings and limited appearance sessions for materials licensing proceedings. Legal advice and counsel will support materials licensing and enforcement actions based on new security requirements affecting materials licensees.

#### **OVERSIGHT**

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY OVERSIGHT

Safety: To oversee licensee safety performance through inspections, investigations, enforcement, and performance assessment activities.

Security: To enhance the programs to control the security of radioactive sources and strategic special nuclear materials commensurate with their risk, including enhancement required by the Energy Policy Act of 2005.

For FY 2015, the NRC requests \$18.2 million, 89.0 FTE, for oversight activities. This represents a funding increase of \$0.2 million, including 0.9 FTE, when compared with the FY 2014 enacted budget.

The Oversight Product Line activities provide for the continued safe and secure use of nuclear materials. These activities provide the means to identify significant issues and ensure that licensees take appropriate actions to maintain acceptable levels of safety and security in their operating procedures, performance, and the use of nuclear materials. Oversight includes resources for inspections, event evaluations, allegations, investigations, enforcement, and related activities associated with the management and oversight of nuclear materials.

The workload includes completion of approximately 900 routine health and safety inspections in FY 2015, as well as reciprocity and reactive inspections, and a registration and follow-up inspection program for certain general licensees. Resources will support implementation of the recommendation from the materials working group and external independent review working group to revise the licensing and inspection infrastructure. The agency will support investigations of wrongdoing, materials-related enforcement actions, oversight of ADR and allegation programs, and external safety culture program activities.

The resources support event and incident evaluation activities, which include the protective measures team emergency response support function, as well as the orphan source activity and funding for the Nuclear Materials Events Database.

Continued coordination with States on agreements, as authorized by Section 274i of the Atomic Energy Act of 1954, and homeland security are planned. These activities include supporting development and distribution of advisories and ensuring that other homeland security information is provided to authorized State and local government officials. The agency will continue to develop, coordinate, and assist in the maintenance of Section 274i agreements with States to conduct security inspections on behalf of the NRC for NRC-issued security orders.

#### RULEMAKING

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY RULEMAKING

Safety: To use sound science and state-of-the-art methods to establish, where appropriate, risk-informed and performance-based regulations.

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$2.9 million, including 14.1 FTE, for rulemaking activities. This represents a funding increase of \$0.2 million, including a decrease of 0.6 FTE, when compared with the FY 2014 enacted budget.

The Rulemaking Product Line will support rulemaking activities, including legal support to maintain the regulatory infrastructure needed to process and handle nuclear materials. Rules, guidance, and regulations promote licensee compliance with underlying safety principles and requirements. In addition, rulemaking activities will support development of radiation protection regulations and guidance and their alignment with the 2007 International Commission on Radiological Protection recommendations.

The NRC will continue to work on the highest-priority rulemakings. In FY 2015, approximately 3 to 4 active materials waste safety rulemakings will be worked on, as well as continued interactive liaison with industry and professional societies to develop new codes and consensus standards and to address petitions for rulemaking submitted to the agency. An example of rulemakings determined to be high priority are the amendments under 10 CFR Part 35, "Medical Uses of Byproduct Material." Rulemaking resources systematically improve the NRC's regulatory program to ensure the safe use and management of nuclear materials and to resolve safety issues. They also improve the NRC's regulations by adding needed requirements. eliminating unnecessary requirements, and minimizing jurisdictional overlaps.

### **INTERNATIONAL ACTIVITIES**

## STRATEGIC GOAL STRATEGIES SUPPORTED BY INTERNATIONAL ACTIVITIES

Safety: To use domestic and international collaboration and cooperation to inform decision-making. Security: To promote U.S. national security interests and nuclear proliferation policy objectives for NRC-licensed imports and exports of source and special nuclear materials and nuclear equipment.

For FY 2015, the NRC requests \$2.5 million, including 13.7 FTE, for international activities. This represents no change in resources or workload when compared with the FY 2014 enacted budget.

The International Activities Product Line will support NRC reviews and decisions on import/export authorizations of nuclear components and radiological materials, Executive Branch Subsequent Arrangements and Proposed 810 Licenses, control and tracking of imports and exports of sources, and bilateral and multilateral activities initiated for the exchange of technical information for the safe handling, storage, transport, and disposal of nuclear waste. Resources also provide for assistance activities related to the safety and security of medical and industrial sources, support to the IAEA missions related to training on and regulation of nuclear materials, and assistance to foreign regulatory bodies through the assignee program.

The International Activities Product Line provides the means to work with international counterparts to exchange information, expertise, operating experience, and ongoing research to recognize and respond to emerging technical issues and promote best practices for safety and security. The NRC also participates in the development of international standards to ensure that they are soundly based and to determine whether substantial safety and security improvements can be identified and incorporated domestically.

## **RESEARCH**

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY RESEARCH

Safety: To improve the NRC's regulatory programs and to anticipate and resolve safety issues. Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$0.8 million, including 2.5 FTE, for research activities. This represents a funding decrease of \$0.5 million, including a decrease of 1.2 FTE, when compared to the FY 2014 enacted budget.

The Research Product Line supports activities to identify, lead, and/or sponsor reviews that support the resolution of ongoing and future safety issues, including providing tools and expertise needed to support the NRC's independent decision-making process.

The Research Product Line supports research patient release experience to inform future policy actions. Research will continue on gemstone irradiation and consumer products.

### **GENERIC HOMELAND SECURITY**

## STRATEGIC GOAL STRATEGIES SUPPORTED BY GENERIC HOMELAND SECURITY

Safety: To use domestic and international collaboration and cooperation to inform decision-making. Security: To promote U.S. national security interests and nuclear proliferation policy objectives for NRC-licensed imports and exports of source and special nuclear materials and nuclear equipment.

For FY 2015, the NRC requests \$11.6 million, including 19.9 FTE, for generic homeland security activities. This represents a funding decrease of \$1.0 million, including 5.6 FTE, when compared with the FY 2014 enacted budget.

The Generic Homeland Security Product Line supports security coordination and liaison; security rulemaking activities, including legal support for the homeland security regulatory improvements initiatives; control and tracking of imports and exports of sources; homeland security travel funds; and the development and implementation of the ISMP.

The resources are for liaison activities related to security activities that support NRC policy interactions at the IAEA and the Nuclear Energy Agency on security and safety issues, consultations on security standards, and intergovernmental coordination. The Resources are also budgeted for the ISMP portfolio, which has integrated the three systems (NSTS, WBL, and LVS) that license and track sources and radioactive materials under one management mechanism. This system is vital to forming a comprehensive national materials license repository as well as bringing about enhanced control and accountability of radioactive materials.

### **EVENT RESPONSE**

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY EVENT RESPONSE

Safety: To effectively respond to events at NRC-licensed facilities and other events of national interest, including maintaining and enhancing the NRC's critical incident response and communication capabilities.

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

For FY 2015, the NRC requests \$0.9 million, including 5.1 FTE, for event response activities. This represents no change in resources or workload, when compared with the FY 2014 enacted budget.

The Event Response Product Line provides the means to effectively respond to events involving nuclear materials, including maintaining and enhancing the NRC's critical event response and communication capabilities. In FY 2015, the budget for the Event Response Product Line remains essentially flat to support event response actions for materials licensees, including the maintenance of a 24/7 response capability for materials-related incidents.

## STATE, TRIBAL, AND FEDERAL PROGRAMS

SUPPORTED STRATEGIC GOAL STRATEGIES FOR STATE, TRIBAL, AND FEDERAL PROGRAMS
Safety: To continue to support Agreement States in developing, maintaining, and implementing licensing and regulatory programs for materials users.

Security: To share security information with appropriate stakeholders and international partners.

For FY 2015, the NRC requests \$7.7 million, including 39.3 FTE, for State, Tribal, and Federal Programs. This represents a funding increase of \$0.4 million, including 1.6 FTE, when compared with the FY 2014 enacted budget.

The State, Tribal, and Federal Programs Product Line conducts materials activities related to Agreement States, including oversight, technical assistance, and cooperative efforts, as well as coordination and liaison with states and local governments, Federal agencies, Native American Tribal governments, and interstate organizations on policy and notifications of interest for nuclear waste and materials. Together, the NRC and Agreement States regulate more than 21,000 specific and 150,000 general licenses.

For FY 2015 budgetary resources support the continued implementation of the Agreement State program. Resources provide for conducting materials activities related to Agreement States and liaison, including oversight, technical assistance, cooperative efforts, and enhanced control and security actions for materials licensees. The resources provide support to: conduct 10 to 12 IMPEP reviews to ensure that they are adequate to protect public health and safety and are compatible with NRC programs; conduct outreach to one potential new Agreement State and process new agreements; process 50 Agreement State incidents/events; participate in, and coordinate state participation in, regulatory development; coordinate, and fund state participation in, NRC training courses (including Agreement State training and travel funds); respond to state technical assistance requests; respond to and coordinate responses to allegations about Agreement State licensees or regulatory programs; interact with the Conference of Radiation Control Program Directors, Inc., and the Organization of Agreement

States, Inc.; and develop and maintain policies and procedures for the program. This activity includes the statutory requirement for the NRC to make a determination that all applicable standards and requirements have been met before an uranium milling license termination by the Agreement State and that alternate 11e.(2) standards are adequate before they are implemented by the Agreement State (1 or 2 cases per year).

The NRC also coordinates with Agreement States in the waste area on Low-Level Waste (LLW) and decommissioning because all currently operating LLW sites are located in Agreement States. These activities provide public confidence and assurance that the Agreement States are conducting adequate and compatible programs.

This product line provides for the Materials State, Federal, and Tribal Liaison Program that informs, notifies, and coordinates with Governor-appointed representatives, other Federal agencies, and Native American Tribal governments on matters involving the NRC. This outreach enhances the public confidence in the national program and collects input from the NRC stakeholders. To be consistent with Executive Order 13175. "Consultation and Coordination with Indian Tribal Governments," dated November 6, 2006, the NRC has adopted agency practices that ensure consultation and cooperation with Tribal governments. For example, the NRC interacts with Native American Tribal governments on nuclear-related regulatory issues that include uranium recovery licensing and long-term strategies for remediation, reactor licensing and inspection activities, reactor license renewal, and nuclear waste transportation and disposal.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC completed 2,000 materials licensing actions. The agency completed 96 percent of new applications and license amendments reviews within 90 days of receipt and 97 percent of license renewals and sealed-source and device design reviews within 180 days of receipt. The agency also developed and issued 10 CFR Part 35 licensing guidance for the safe use of <sup>223</sup>RaCl<sub>2</sub> (radium-223 chloride) in clinical trials for prostate cancer patients with bone metastases. The NRC also published for public comment the draft NUREG-1556, Volume 3, Revision 2, "Applications for Sealed Source and Device Evaluation and Registration," in May 2013. The agency deployed the License Verification System on schedule on May 31, 2013.

The agency completed 900 routine health and safety inspections. The NRC concluded the IMPEP review for Region III. No recommendations were identified by the team. The Management Review Board found the program to be adequate for the third consecutive review and extended the period of the next IMPEP to 5 years for the second time. The NRC completed enhanced oversight of safety improvements (i.e., enhanced procedures and training) implemented by Gamma Irradiator Service (GIS) in response to a Confirmatory Action Letter regarding the cessation of self-shielded calibrator source reloads and exchanges in NRC jurisdiction.

The agency opened 30 investigations of potential wrongdoing involving the use of nuclear materials. The investigations were initiated after information concerning potential wrongdoing impacting public health and safety was received by the NRC. The NRC identified several security-related issues at operators of panoramic wet-source irradiators, which resulted in escalated enforcement actions being issued to each facility.

The NRC continued to amend its regulations that govern the licensing and distribution of byproduct materials aimed at making regulations clearer, more risk-informed, and up-to-date. The agency published the final rule 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," in the Federal Register on March 19, 2013. The implementation guidance for the 10 CFR Part 37 rule was issued as NUREG-2155 in February 2013. The Part 37 Implementation Working Group activities began in November 2012.

The NRC also amended 10 CFR Part 40.22, "Small Quantities of Source Material," by publishing final rule SECY-12-0099, "Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions," and its associated guidance. This rule requires specific licenses for the initial distribution of source material to exempt persons. The NRC also completed draft rulemaking guidance to accompany the draft 10 CFR Part 35 rule, "Medical Use of Byproduct Material," under an accelerated schedule.

The agency conducted Tribal outreach activities to advance efforts to develop an agency Tribal Policy Statement per <u>SRM-CMWDM12-0001</u>, "<u>Tribal Consultation Policy Statement and Protocol</u>." Outreach included publication of a *Federal Register* notice requesting public comment on the draft <u>Tribal Protocol Manual</u> and Policy Statement development efforts and dissemination of information at four conferences widely attended by Tribes.

The Commission approved placing the State of Georgia's radiation control program on probation following their IMPEP program review. The review found the State's performance "unsatisfactory" for two performance indicators and "satisfactory but needs improvement" for three performance indicators. The deficiencies identified in the program, if left uncorrected, had the potential to negatively impact public health and safety. The Georgia program is the first program to be placed on probation since the IMPEP program began in 1995. Independently of the program review, the State of Georgia requested to return regulatory review of sealed source and devices within Georgia and the NRC agreed to assume regulatory responsibility for such reviews.

The NRC responded to the U.S. Government Accountability Office (GAO) Report GAO-12-925, "Nuclear Nonproliferation - Additional Actions Needed to Improve Security of Radiological Sources at U.S. Medical Facilities," including assessment of GAO conclusions, development of the response to GAO, and support for Congressional briefings and development of responses to associated questions. The agency also provided support for two ongoing GAO audits involving source security.

The agency issued an Information Assessment Team Advisory on how licensees can make voluntary notifications to the NRC's protected Webserver for security and cyber incidents. The NRC also worked collaboratively with the Commonwealth of Pennsylvania to share information and issue press releases that led to the successful recovery of a portable gauge lost in West Virginia in May 2013.

The NRC hosted an "International Regulators Conference on Nuclear Security" in December 2012. This conference discussed a range of activities relevant to enhancing regulatory approaches to security at civilian facilities and shared best practices among senior-level representatives from other Federal agencies, licensees, international counterparts, NRC managers, and staff. As a result of the success of the conference, the NRC is engaged in

discussions with counterpart regulators and the U.S. Executive Branch for a follow-on international regulators conference in 2015.

# **OUTPUT INDICATORS**

## LICENSING

	Timeliness Of Licensing Actions-Review Of Application For New Materials Licenses And License Amendments.							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90% ≤ 90 days	90% ≤ 90 days	92% ≤ 90 days	92%≤90 days	92%≤90 days	92%≤90 days		
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100%≤2 yrs.	100%≤2 yrs.	100%≤2 yrs.		
Actual	95% ≤ 90 days	97% ≤ 90 days	97% ≤ 90 days	96% ≤ 90 days				
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.				

Timeliness Of Licensing Actions - Review Of Applications For Materials License Renewals And Sealed Source And Device Designs.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	90% ≤ 180 days	92% ≤ 180 days						
	100% ≤ 2 yrs.							
Actual	95% ≤ 180 days	97% ≤ 180 days	98% ≤ 180 days	97% ≤ 180 days				
	100% ≤ 2 yrs.							

## **OVERSIGHT**

	Timeliness Of Safety Inspections Of Materials Licensees.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	> 98% completed	> 98% completed	> 98% completed	> 98% completed	> 98% completed	> 98% completed			
	on time.	on time.	on time.	on time	on time	on time			
Actual	99% completed	99% completed	99% completed	99% completed					
	on time.	on time.	on time.	on time.					

	Timeliness In Completing Reviews For Technical Allegations.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	90% ≤ 150 days	90% ≤ 150 days	90% ≤ 150 days	90% ≤ 150 days	90% ≤ 150 days	90% ≤ 150 days			
	95% ≤ 180 days	95% ≤ 180 days	95% ≤ 180 days	95% ≤ 180 days	95% ≤ 180 days	95% ≤ 180 days			
	100% ≤ 360 days	100% ≤ 360 days	100% ≤ 330 days						
Actual	94% ≤ 150	95% ≤ 150	93% ≤ 150	93% ≤ 150					
	days 98% ≤ 180	days 100% ≤ 180	days 98% ≤ 180	days 97% ≤ 180					
	days 100% ≤ 360	days 100% ≤ 360	days 100% ≤ 330	days 100% ≤ 330					
	days	days	days	days					

		Timeliness In	Completing Enforce	ment Actions.		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	cases: 100%	cases: 100%	cases: 100%	cases: 100%	cases: 100%	cases: 100%
	completed within	completed within	completed within	completed within	completed within	completed within
	360 days of OE	360 days of OE	330 days of OE	330 days of OE	330 days of OE	330 days of OE
	processing time.	processing time.	processing time.	processing time.	processing time.	processing time.
	Non-	Non-	Non-	Non-	Non-	Non-
	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	cases:	cases:	cases:	cases:	cases:	cases:
	100%	100%	100%	100%	100%	100%
	completed within	completed within	completed within	completed within	completed within	completed within
	180 days of OE	180 days of OE	160 days of OE	160 days of OE	160 days of OE	160 days of OE
	processing time.	processing time.	processing time.	processing time.	processing time.	processing time.
Actual	Investigation:	Investigation:	Investigation:	Investigation:		
	None ≥ 360 days	None ≥ 360 days	None ≥ 330 days	None ≥ 330 days		
	Non-	Non-	Non-	Non-		
	Investigations:	Investigations:	Investigations:	Investigations:		
	None ≥ 180 days	None ≥ 180 days	None ≥ 160 days	None ≥ 160 days		
		Timeliness In C	Completing Investigat	ions - Target 1.		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	85% of	85% of	85% of	85% of	85% of	85% of
	investigations	investigations	investigations	investigations	investigations	investigations
	which developed	which developed	which developed	which developed	which developed	which developed
	sufficient	sufficient	sufficient	sufficient	sufficient	sufficient
	information to	information to	information to	information to	information to	information to
	reach a	reach a	reach a	reach a	reach a	reach a
	conclusion	conclusion	conclusion	conclusion	conclusion	conclusion
	regarding	regarding	regarding	regarding	regarding	regarding
	wrongdoing will	wrongdoing will	wrongdoing will	wrongdoing will	wrongdoing will	wrongdoing will
	be completed in	be completed in	be completed in	be completed in	be completed in	be completed in
	10 months or	9 months or less.	9 months or less.	9 months or less.	9 months or less	9 months or less.
	less.					
Actual	Completed 18	Completed 25	Completed 19	Completed		
	investigations in	investigations in	investigations in	22investigations		
	which 100% (18)	which 88% (22)	which 89% (17)	in which 59%		
	reached	reached	reached	(13) reached		
	sufficient	sufficient	sufficient	sufficient		
	information to	information to	information to	information to		
	reach a	reach a	reach a	reach a		
	conclusion	conclusion	conclusion	conclusion		
	regarding	regarding	regarding	regarding		
	wrongdoing were	wrongdoing were	wrongdoing were	wrongdoing were		
	completed in 9	completed in 9	completed in 9	completed in 9		

<sup>\*</sup>The Office of Investigations has implemented long-term strategies to ensure all investigations are timely, thorough, of high quality, and are conducted in accordance with professional investigative standards and guidelines.

		Timeliness In (	Completing Investiga	tions - Target 2.		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	Close 100% of OI	Close 100% of OI	Close 100% of OI	Close 100% of OI	Close 100% of OI	Close 100% of OI
	investigations in	investigations in	investigations in	investigations in	investigations in	investigations in
	time to initiate	time to initiate	time to initiate	time to initiate	time to initiate	time to initiate
	civil and/or	civil and/or	civil and/or	civil and/or	civil and/or	civil and/or
	criminal	criminal	criminal	criminal	criminal	criminal
	enforcement	enforcement	enforcement	enforcement	enforcement	enforcement
	action.	action.	action.	action.	action.	action.
Actual	100%	100%	100%	100%		

#### RESEARCH

Acceptable Technical Quality Of Agency Research Technical Products.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	Combined score							
	≥3.5	≥3.5	≥3.5	≥ 3.5	≥ 3.75	≥ 3.75		
Actual	4.6	4.4	NA**	NA**				

<sup>\*</sup>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.

<sup>\*\*</sup> No research products produced for this Business Line during FY 2012 and FY 2013.

Timeliness Of Completing Actions On Critical Research Programs.*									
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	90% of major milestones met	. 90% of major milestones met	90% of major milestones met						
	on or before their due date.	on or before their due date.	on or before their due date.						
Actual	100% across programs.	100% across programs.	4.5	NA**					

<sup>\*</sup> Critical research programs typically respond to high priority needs from the Commission and NRC's licensing organizations. Critical research  $programs\ regarding\ the\ highest\ priority\ needs\ identified\ at\ the\ beginning\ of\ the\ fiscal\ year.$ 

<sup>\*\*</sup> There were no critical milestones associated with the research activities conducted in this business line in FY 2013; thus, there is no performance data to report.

## SPENT FUEL STORAGE AND TRANSPORTATION

Spent Fuel Storage and Transportation by Product Line (Dollars in Millions)									
	FY	2014	FY	2015	Delt	a			
	Ena	cted	Req	uest	FY 2015 -	FY 2014			
Product Line	\$M	FTE	\$M	FTE	\$M	FTE			
Licensing	11.8	56.4	11.4	55.9	(0.4)	(0.5)			
Oversight	3.7	22.1	3.7	21.9	0.0	(0.2)			
Rulemaking	8.5	31.7	7.7	32.0	(0.7)	0.3			
International Activities	0.9	4.2	0.7	3.1	(0.2)	(1.1)			
Research	4.4	12.0	5.3	13.8	0.9	1.8			
Generic HLS	0.3	1.9	0.1	0.4	(0.2)	(1.5)			
Subtotal	\$29.5	128.3	\$28.9	127.0	(\$0.6)	(1.3)			
Corporate Support	18.1	37.8	16.4	36.0	(1.7)	(1.8)			
Total	\$47.6	166.1	\$45.3	163.0	(\$2.3)	(3.1)			

Numbers may not add due to rounding.

The Spent Fuel Storage and Transportation Business Line activities are conducted to ensure both (1) the safe and secure storage of spent fuel to support continued operations and (2) the safe and secure transport of radioactive materials to support domestic and international commerce. Activities in this business line include Licensing, Oversight, Rulemaking, Research, International Activities, and Generic Homeland Security efforts associated with radioactive material transportation and the storage and transportation of spent nuclear fuel (SNF).

Resources in this business line support the following:

- Safety, security, and environmental reviews of SNF storage casks transportation packages and Independent Spent Fuel Storage Installation (ISFSI) license renewal applications, including development and update of regulations and guidance.
- Safety inspections of transportation packages, storage cask vendors and fabricators, and ISFSI operations; security inspections of ISFSIs; and radioactive material transportation and route surveys.
- Evaluation of storage and transport of high-burnup fuels (> 45 gigawatt-days per metric
  ton of uranium (GWd/MTU)), Computational Fluid Dynamic Methods applied to storage
  cask and transport package design, development of a technical basis to support allowing
  full (fission product and actinides) burnup credit for boiling-water reactor (BWR) fuel
  transportation packages and storage casks, and benchmarking of structural computer
  codes using German and Japanese cask testing results.
- Evaluation of potential revisions of regulatory framework for spent fuel dry storage and subsequent transportation. This includes solicitation of public comments on proposed staff positions and potential planning and initiation of rule changes and revised guidance documents.
- Analysis, data collection, and modeling for future alternate strategies for disposal of SNF and high-level waste, including: laboratory studies and field investigations to try to understand key technical issues and risk insights; technical inputs to resolution of regulatory gaps; exercise of the performance assessment scoping tool for risk insights;

- and continued coordination for assessment of alternative disposal strategies with other aspects of the back end of the fuel cycle.
- Establish regulatory framework to address potential material degradation issues including periodic in-service inspections and on-line monitoring of spent fuel dry storage and transportation systems. These actions are intended to detect, assess, and mitigate (as necessary) degradation of systems, structures, and components important to safety.
- Supporting security rulemaking and development of supporting regulatory guidance documents. This includes assessing the need for digital and security systems to defend against a cyber-attack at standalone ISFSIs.
- Supporting and responding to changes in the national high-level waste and spent nuclear fuel management strategy.

The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of its Strategic Outcomes.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Licensing contract resources decrease to reflect the transition of the Storage and Transportation Information Management System (STIMS) from development to operations and maintenance. Rulemaking resources also decrease to reflect the remaining work level expected in FY 2015 to support the proposed security rulemaking and development of supporting regulatory guidance documents and to continue work on spent fuel regulatory improvements. Further, resources decrease to reflect the completion of the near-term Waste Confidence Rule in FY 2014. This decrease is partially offset by increases to evaluate potential revisions of regulatory framework for extended dry spent fuel storage and subsequent transportation, to support potential updates to the regulatory framework (quidance) and possible future rulemaking, and to support emergent issues associated with Waste Confidence Environmental impact Statement and rule and related areas for continued management of spent fuel. Resources also increase to support analyses, data collection, and modeling for future alternate strategies for disposal of spent fuel and high-level waste. Activities include: (a) laboratory studies and field investigations to try to understand key technical issues and risk insights, (b) technical inputs to the resolution of regulatory gaps, (c) exercise of the performance assessment scoping tool for risk insights, and (d) continued coordination of alternative disposal strategies with other aspects of the back end of the fuel cycle.

#### **LICENSING**

## STRATEGIC GOAL STRATEGIES SUPPORTED BY LICENSING

Safety: To develop, maintain, and implement licensing and regulatory programs for fuel facilities, materials, spent fuel management, waste management, uranium recovery, and decommissioning

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$11.4 million including 55.9 FTE for licensing activities. This represents a funding decrease of \$0.4 million, including 0.5 FTE, when compared with the FY 2014 enacted budget.

Licensing resources provide for the following:

- The review of approximately 65 radioactive material transportation package design applications and approximately 22 SNF, including initiating the review of the renewal of Certificate of Compliance No. 1004 storage applications to ensure the safe and secure storage of SNF.
- Renewal of the Prairie Island ISFSI license and related environmental assessment support and legal advice and representation on SNF and radioactive material transportation matters.
- Transportation certification security reviews, security reviews for onsite storage, issuance of ISFSI security orders, and ISFSI security licensing reviews.
- IT management and continued maintenance of STIMS and maintenance for the Transportation and Storage Computational Analysis Platform system.

#### **OVERSIGHT**

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY OVERSIGHT

Safety: To oversee licensee safety performance through inspections, investigations, enforcement, and performance assessment activities.

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$3.7 million, including 21.9 FTE for oversight activities. This represents no change in requested dollars, but a decrease of 0.2 FTE, when compared with the FY 2014 enacted budget.

The Oversight Product Line supports the activities of the NRC to monitor use of radioactive material transportation packages, SNF storage casks, and ISFSIs; identify significant performance issues; develop generic communications; and make sure that licensees and certificate holders take appropriate actions to maintain acceptable operating performance to ensure the adequate protection of the public health and safety and the environment.

Oversight resources provide for completion of 16 regional and headquarters safety inspections of storage and transportation cask vendors, fabricators, and designers and of ISFSI pad construction, dry-run operations, initial loading operations, and routine operations. Resources provide for the identification and implementation of near-term improvements to the storage and transportation inspection and enforcement programs. Resources also provide for regional security inspection oversight of SNF and wet and dry ISFSI operations. In addition, resources provide SNF in-service inspections and on-line monitoring program development to assess corrosion and degradation, maintenance activities, and update and route surveys.

#### RULEMAKING

### STRATEGIC GOAL STRATEGIES SUPPORTED BY RULEMAKING

Safety: To use sound science and state-of-the-art methods to establish, where appropriate, risk-informed and performance-based regulations.

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$7.7 million, including 32 FTE, for Rulemaking activities. This represents a funding decrease of \$0.7 million, but an increase of 0.3 FTE, when compared with the FY 2014 enacted budget.

The Rulemaking Product Line supports the development and update of rules and regulatory quidance that promote licensee compliance with underlying safety and security principles and requirements. This regulatory framework guides the safety and security activities of the agency and its licensees.

Resources provide for the identification and implementation of near-term improvements to the storage and transportation licensing program, including a comprehensive review of licensing quidance and regulations; evaluation and integration of dual-purpose cask reviews; improving cask certification rulemaking processes; and implementing enhancements to the rules for storage and transportation, including evaluation of the 2012 Edition of the International Atomic Energy Agency (IAEA) "Regulations for the Safe Transport of Radioactive Material, SSR-6" for future harmonization of 10 CFR Part 71."

Resources also support high-priority rulemakings (eight Certificates of Compliance (CoC) Rulemakings and ISFSI Security Requirements for Radiological Sabotage).

Further, resources support the proposed security rulemaking and development of supporting regulatory guidance documents. In addition, resources would be used to assess the need for digital and security systems to defend against a cyber-attack at standalone ISFSIs and make necessary changes to the existing regulations through rulemaking or orders.

## RESEARCH

STRATEGIC GOAL STRATEGIES SUPPORTED BY RESEARCH

Safety: To improve the NRC's regulatory programs and anticipate and resolve safety issues. Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$5.3 million, including 13.8 FTE, for research activities. This represents a funding increase of \$0.9M, including 1.8 FTE, when compared with the FY 2014 enacted budget.

The Research Product Line supports the NRC's regulatory mission by providing technical advice, tools, and information to identify and resolve safety issues and make regulatory decisions. This includes conducting confirmatory experiments and analyses and preparing the agency for the future through evaluation of the safety aspects of new technologies and designs for radioactive material transportation packages, spent fuel storage casks, and ISFSIs; research on technical issues associated with extended and long-term storage; and analysis and modeling for future waste management strategies.

Resources provide for continued research on technical issues associated with extended storage and transportation (EST) to support a technical basis for decisions on regulatory revisions by These technical issues include concrete degradation, canister corrosion, impacts of high-burnup and mixed-oxide fuels, transportability of fuel after long-term storage, and the need for an improved hazards assessment, including an assessment of the potential impacts of long-term storage on eventual disposal. Resources also provide for the development of a technical basis to support the allowance of full burnup credit for spent BWR fuel transportation

and storage casks; review of computational fluid dynamic methods applied to storage and transport cask design; and maintenance and development of RADTRAN, a computer software package used for evaluating the risks of shipping radioactive materials.

#### INTERNATIONAL ACTIVITIES

#### STRATEGIC GOAL STRATEGIES SUPPORTED BY INTERNATIONAL ACTIVITIES

Safety: To use domestic and international collaboration and cooperation to inform decision-making. Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$0.7 million, including 3.1 FTE, for international activities. This represents a funding decrease of 0.2 million, including 1.1 FTE, when compared with the FY 2014 enacted budget.

The International Activities Product Line supports the NRC's international work, which assists decision-making, awareness of and responses to emerging technical issues, and promoting best practices in realizing the Safety and Security goals and related strategic indicators and outcomes. Additionally, the NRC participates in the development and evaluation of international standards to ensure that they are soundly based and to determine whether they should be implemented domestically.

Resources provide for international coordination with the (IAEA) to compare regulatory frameworks, share research on storage and transport matters, and harmonize the certification of SNF transport packages and the licensing of storage cask designs with international standards. Resources are also provided for investigation of and participation in select international activities, experiments, and collaboration in dealing with regulatory, technical, and legal aspects of waste disposal as well as sharing information and good practices directly with other countries.

### **GENERIC HOMELAND SECURITY**

### STRATEGIC GOAL STRATEGIES SUPPORTED BY GENERIC HOMELAND SECURITY

Safety: To conduct NRC safety, security, and emergency preparedness programs in an integrated

Security: To support Federal response plans that employ an approach to the security of nuclear facilities and radioactive material that integrates the efforts of licensees and Federal, State, local, and Tribal authorities.

For FY 2015, the NRC requests \$0.1 million, including 0.4 FTE, for generic homeland security activities. This represents a funding decrease of \$0.2 million, including 1.5 FTE, when compared with the FY 2014 enacted budget.

The Generic Homeland Security (HLS) Product Line supports security activities related to intergovernmental coordination and communication. It also supports security activities (that are not plant-specific or associated with a class of licensees) which contribute to the common defense and security of the Nation's critical infrastructure.

Resources provide for ongoing security activities in response to the events of September 11, 2001. This encompasses Generic HLS improvements to address new threats and also includes developing interagency agreements and working arrangements with other Federal agencies on issues related to safety, security, and emergency response.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC issued licenses and developed guidance to ensure safety and security in the area of spent fuel storage and transportation. The agency issued approval for a new spent fuel transportation package, Model No. TN-LC. The agency approved the transport of National Research Universal Reactor and National Research Experimental Reactor highly enriched uranium fuel elements in the Model No. NAC-LWT spent fuel transportation package, which supported shipments by the U.S. Department of Energy National Nuclear Security Administration's Spent Nuclear Fuel Acceptance Program in January 2013. Storage certificate of Compliance No. 1031, Amendment No. 3 was approved, effective July 25, 2013, which supported movement of SNF from the pool to dry storage supporting decommissioning at the Zion Nuclear Power Station.

The agency issued NUREG-2152, "Computational Fluid Dynamics Best Practice Guidelines for Dry Cask Applications" as a final report in March 2013.

As part of licensing program improvements, the NRC published "General Solicitation for Public Comment (Request for Comments) on the Topic of Retrievability, Cladding Integrity, and Safe Handling of Spent Fuel at an Independent Spent Fuel Storage Installation and during Transportation" in the *Federal Register* on January 17, 2013.

The agency completed inspection activities at the La Crosse Boiling-Water Reactor associated with the licensee's completion of the major milestone of relocating all spent fuel from the fuel pool to the independent spent fuel storage installation (ISFSI) storage pad. The agency completed inspection of final corrective actions at the North Anna general-licensed ISFSI in response to the 2011 Virginia earthquake in support of an upcoming loading campaign.

The NRC issued EA-13-112, "Order for Implementation of Additional Security Measures and Fingerprinting for Unescorted Access to Beaver Valley Nuclear Power Station Independent Spent Fuel Storage Installation," and EA-13-132, "Order for Implementation of Additional Security Measures and Fingerprinting for Unescorted Access to Pilgrim Nuclear Power Station Independent Spent Fuel Storage Installation."

As directed by the Commission on September 6, 2012, the NRC established and staffed a dedicated Waste Confidence Directorate, tasked with developing the environmental impact statement rule and completing the scoping period for a draft generic environmental impact statement within 24 months. The agency held four public meetings to collect public comments on the scope of the project and published the Waste Confidence Scoping Summary Report. Eight public teleconferences were held to discuss the project status. On September 13, 2013, the agency published the draft generic environmental impact statement and proposed rule for public comment. The NRC held 13 public meetings at NRC headquarters and around the country in FY 2014 to receive comments on the waste confidence draft generic environmental impact statement and proposed rule.

The agency submitted a proposed rule package for 10 CFR Part 71 to the Commission on December 14, 2012. The proposed rule would harmonize 10 CFR Part 71 with IAEA standards and DOT regulations. Public comments were received by the deadline of July 30, 2013, and have been under review.

The agency initiated proof-of-concept testing to inform the technical basis for developing rulemaking for ISFSIs and monitored retrievable storage installations. Test results would also be used to address stakeholder concerns regarding using a dose-based versus a design-basis threat approach in formulating the appropriate level of physical security requirements. The NRC has ongoing research associated with burnup credit and very long-term dry spent fuel storage. The agency also continues research efforts to address the safe long-term storage of spent nuclear fuel. The technical bases for EST are being strengthened to ensure that environmental effects and material property changes do not affect the safety of licensed dry cask storage systems. The NRC also continued research on the performance of metal and polymeric O-ring seals used in spent fuel shipping.

The agency completed the final action (Recommendation 1) from the Audit of NRC's Oversight of ISFSI Security (OIG-11-A-10) to develop and implement an overarching process document that defines and clearly documents the roles and responsibilities of all offices involved in ISFSI security. Proof-of-concept testing to support the basis for future ISFSI security rulemaking was completed in January 2013.

The agency published the final rule for 10 CFR 73.37, "Requirements for Physical Protection of Irradiated Reactor Fuel in Transit," which makes generically applicable the spent fuel and transportation orders issued after 9/11. The rulemaking also incorporated, in part, a response to a State of Nevada Petition for Rulemaking.

## **OUTPUT INDICATORS**

### **LICENSING**

	Complete Storage Container And Installation Design Reviews Within Timeliness Goals.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	80% ≤ 12.6 mos.	80% ≤ 12.6 mos.	80% ≤ 12.6 mos.	80% < 12.6 mos.	80% < 12.6 mos.	80% < 12.6 mos.			
	100% ≤ 2 yrs.*	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% < 2 yrs.	100% < 2 yrs.	100% < 2 yrs.			
Actual	92% ≤ 12.6 mos.	100% ≤ 12.6 mos.	71% ≤ 12.6	46% ≤ 12.6					
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	mos**. 100% ≤ 2	mos.***					
			yrs.	100% ≤ 2 yrs.					

<sup>\*</sup>Output targets for FY 2009 and beyond are being held at the FY 2007 metric to reflect the changing profile of the casework, based on the increased technical complexity and applicants "bundling" of multiple requests in a single application, and updated labor rates for the current mix of casework.

were the last of the active cases that had already exceeded the metric. Now that those cases are completed, and due to the success of corrective actions taken in fiscal year 2013 that continue this fiscal year, the business line is likely to meet the metric in fiscal year 2014.

Complete Transportation Container Design Reviews Within Timeliness Goals.									
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	80% ≤ 7.4 mos.	80% ≤ 7.4 mos.	80% ≤ 7.4 mos.	80% <7.4 mos.	80% <7.4 mos.	80% <7.4 mos.			
	100% ≤ 2 yrs.*	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% < 2 yrs.	100% < 2 yrs.	100% < 2 yrs.			
Actual	87% ≤ 7.4 mos.	100% ≤ 7.4 mos.	96% ≤ 7.4 mos.	89% ≤ 7.4 mos.					
	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.	100% ≤ 2 yrs.					

<sup>\*</sup>Output targets for FY 2009 and beyond are being held at the FY 2007 metric to reflect the changing profile of the casework, based on the increased technical complexity and applicants "bundling" of multiple requests in a single application, and updated labor rates for the current mix of casework.

		U	tilizing Intra-Agency (	Contracting		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator in			Projected savings	Projected savings	Discontinued -
	FY 2013			of \$40,000 (50%	of \$40,000 (50%	activity ceases
				savings)	savings)	after FY 2014
Actual				No savings		
				realized due to		
				other program		
				priorities		
Wa	ste Confidence and Exten	ded Long-Term S	torage Activities-Perc	ent of planned products	completed within a f	iscal year
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New Indicator in			≥80%	Discontinued in	
	FY 2013				FY 2014	
Actual				The U.S. District		
				Court decision in		
				June 2012		
				striking down the		
				Waste		
				Confidence Rule		
				rendered this		
				measure		

<sup>\*\*</sup> There were four requests for security exemptions at decommissioned Independent Spent Fuel Storage Installation (ISFSI) sites to address 10 CFR 73.55 security requirements meant for operating reactors. The multi-part exemption requests were large and very complex requiring consensus among multiple offices. The final two were completed in the fourth quarter with timeliness at approximately 20 months. \*\*\*The business line completed 13 cases this fiscal year, with 7 of them exceeding the metric. Fortunately, cases completed in the 4th quarter

irrelevant.

## **OVERSIGHT**

Number of spent fuel storage and transportation inspections completed.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	16 inspections							
Actual	20 inspections	19 inspections	19 inspections	18 inspections				

### **RESEARCH**

	Timeliness Of Completing Actions On Critical Research Programs.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	90% of major	90% of major	90% of major	90% of major	90% of major	90% of major			
	milestones met	milestones met	milestones met	milestones met	milestones met	milestones met			
	on or before their	on or before their	on or before their	on or before	on or before	on or before			
	due date.	due date.	due date.	their due date.	their due date	their due date.			
Actual	100% across	100% across	NA**	NA**					
	programs.	programs.							

<sup>\*</sup>Critical research programs typically respond to high priority needs from the Commission and NRC's licensing organizations. Critical research  $programs\ regarding\ the\ highest\ priority\ needs\ identified\ at\ the\ beginning\ of\ the\ fiscal\ year.$ 

<sup>\*\*</sup> There were no critical milestones associated with the research activities conducted in this business line in FY 2012 and FY 2013. User need requests with RES in this business line have been tracked at the office level. None of the milestones rise to agency level tracking thus, there are no performance data to report.

Acceptable Technical Quality Of Agency Research Technical Products*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	Combined score	Combined	Combined score	Combined score	Combined score	Combined score		
	≥ 3.5	score ≥ 3.5	≥ 3.5	≥ 3.5	≥ 3.5	≥ 3.75		
Actual	4.6	4.75	4.5	4.56				

<sup>\*</sup>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**

Decommissioning and Low-Level Waste by Product Line (Dollars in Millions)							
	FY	2014	FY	2015	De	lta	
	Ena	icted	Request		FY 2015 - FY 2014		
<b>Product Line</b>	\$M	FTE	\$M	FTE	\$M	FTE	
Licensing	16.5	71.4	16.6	70.7	0.1	(0.7)	
Oversight	5.2	26.3	5.7	29.0	0.5	2.6	
Rulemaking	1.4	5.8	1.5	6.0	0.0	0.2	
International Activities	0.9	4.9	0.9	4.9	0.0	(0.0)	
Research	0.4	2.4	0.4	2.4	0.0	0.0	
Subtotal	\$24.4	110.8	\$25.1	112.9	\$0.7	2.1	
Corporate Support	15.4	32.4	14.3	31.3	(1.2)	(1.1)	
Total	\$39.8	143.2	\$39.3	144.2	(\$0.5)	1.0	

Numbers may not add due to rounding.

Decommissioning and Low-Level Waste (LLW) activities include the licensing and oversight of licensed and unlicensed facilities undergoing decommissioning, the licensing and oversight of new and operating uranium recovery facilities, the oversight of the national LLW management program, and oversight of the Department of Energy (DOE) waste management activities at the Savannah River and Idaho Waste Incidental to Reprocessing (WIR) facilities that is consistent with the NRC's responsibilities in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005. This Act requires DOE to consult with the NRC on its WIR determinations for facilities in South Carolina and Idaho and also requires NRC monitoring at those sites after waste determinations are completed by DOE. Activities also include interfacing with licensees, applicants, Federal and State agencies, the public, other stakeholders, and Native American Tribal Governments.

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

The NRC performs project management, financial, policy, technical, safety, security, and environmental reviews for decommissioning power and early demonstration reactors, research and test reactors, complex materials facilities, and uranium recovery facilities, as well as reviews for licensing new and operational uranium recovery facilities. In addition, the NRC develops guidance and import/export reviews of nuclear waste and performs research activities which include the development and improvement of data, models, and other analytical tools for assessing the environmental effects of releases from NRC-licensed facilities.

The NRC has organized Decommissioning and LLW activities into product lines that best support Safety and Security strategies and positively impact strategic outcomes as they relate to decommissioning and LLW activities, uranium recovery licensing, inspection, and related

environmental activities. The resources requested support the following five product lines: Licensing, Oversight, Rulemaking, International Activities, and Research.

The outputs of the product lines under this business line contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of its Strategic Outcomes.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase to support decommissioning and uranium recovery inspections. The increase is slightly offset by a decrease of resources from uranium recovery licensing actions.

#### **LICENSING**

### STRATEGIC GOAL STRATEGIES SUPPORTED BY LICENSING

Safety: To oversee the decontamination and decommissioning of nuclear facilities in license termination and license new facilities as applications are submitted. Security: To review security plans for decommissioning for consistency with security requirements.

For FY 2015, the NRC requests \$16.6 million, including 70.7 FTE, to support licensing activities. This represents a funding increase of \$0.1 million, but a decrease of 0.7 FTE, when compared with the FY 2014 enacted budget.

The Licensing Product Line supports (1) reviews of requests to terminate a license through a decommissioning process. (2) licensing of operational and new uranium recovery and LLW disposal sites, and (3) Agreement State licensing. The Licensing Product Line supports project management, financial, policy, technical, safety, security, and environmental reviews; other licensing activities supporting operational uranium recovery facilities; and the decommissioning of power and early demonstration reactors, research and test reactors, complex materials sites, and inactive uranium recovery facilities. Resources support interfaces with NRC licensees, applicants, Federal and State agencies, the public, other stakeholders, and Native American Tribal Governments; legal advice and representation; and Licensing Board activities.

The resources for decommissioning support licensing reviews for decommissioning 14 power and early demonstration reactors, 7 research and test reactors, 23 complex materials facilities, and 38 uranium recovery facilities. Resources also support licensing for up to 40 military Naturally Occurring and Accelerator-Produced Radioactive Materials (NARM) sites and depleted uranium sites. These activities include reviews of license applications and termination plans, decommissioning plans, reclamation plans, long-term surveillance plans, financial assurance reviews, and license amendments. Complex environmental reviews for decommissioning cases and for licensing actions will also be performed.

The agency will perform safety reviews, environmental reviews, and project management for uranium recovery licensing. FY 2015 resources will support 8 to 10 environmental and safety reviews (hearings included) for uranium recovery licensing applications as well as licensing activities associated with 7 operating uranium recovery facilities. The resources will also support legal advice and representation and Licensing Board activities for activities related to decommissioning power reactors and complex materials sites, uranium recovery licensing, adjudications, and LLW and WIR activities.

### **OVERSIGHT**

## STRATEGIC GOAL STRATEGIES SUPPORTED BY OVERSIGHT

Safety: To develop, maintain, and implement licensing and regulatory programs for fuel facilities material, spent fuel management, waste management, uranium recovery, and decommissioning.

Security: To review security plans and changes for consistency with security requirements.

For FY 2015, the NRC requests \$5.7 million, including 29 FTE, to support oversight activities. This represents an increase of \$0.5 million, including 2.6 FTE, when compared with the FY 2014 enacted budget.

The Oversight Product Line supports the NRC in continuously overseeing decommissioning and LLW activities to ensure that licensees continue to maintain acceptable safe and secure practices. In FY 2015, resources provide for decommissioning and uranium recovery inspections, LLW program activities, and WIR activities at two DOE sites.

Resources support (1) performing decommissioning and uranium recovery inspections to ensure that these operations are being conducted safely and in accordance with NRC regulations and (2) overseeing LLW program activities, which includes updating storage inspection procedures, support of Greater than Class C activities, and support of Agreement States.

### RULEMAKING

STRATEGIC GOAL STRATEGIES SUPPORTED BY RULEMAKING Safety: To use sound science and state-of-the-art methods to establish, where appropriate, risk-informed and performance-based regulations. Security: To use a risk-informed approach to implement appropriate regulatory controls.

For FY 2015, the NRC requests \$1.5 million, including 6.0 FTE, to support rulemaking activities. This represents no change in requested resources, includes an increase of 0.2 FTE when compared to the FY 2014 enacted budget.

The Rulemaking Product Line supports the NRC goal of maintaining a safety and security framework of rules, regulatory guidance, and standard review plans that promote licensee compliance with underlying safety principles and security requirements. The resources for FY 2015 supports work on the Title 10 of the Code of Federal Regulations(10 CFR) Part 40 In-Situ Leach (ISL) rule, the Prompt Remediation rule, and the 10 CFR Part 61 Waste Classification Rule, including rule development, associated guidance development and environmental reviews.

#### INTERNATIONAL ACTIVITIES

STRATEGIC GOAL STRATEGIES SUPPORTED BY INTERNATIONAL ACTIVITIES Safety: To use domestic and international operating experience to inform decision-making.

Security: To use a risk-informed approach to implement appropriate regulatory controls for the possession, handling, import, export, and transshipment of radioactive materials.

For FY 2015, the NRC requests \$0.9 million, including 4.9 FTE, to support international activities. This represents no change in resources or workload when compared with the FY 2014 enacted budget.

The International Activities Product Line supports activities with international counterparts to exchange information, expertise, operating experiences, and ongoing research to recognize and respond to emerging technical issues and promote best practices for safety and security. The NRC also participates in the development of international standards to ensure that they are soundly based and to determine whether substantial safety improvements can be identified and incorporated domestically. Resources provide support for international activities and support for bilateral assistance to foreign counterparts on decommissioning issues, licensing of uranium recovery facilities, and development of regulations for the handling and disposal of LLW, as well as decommissioning of power reactors and other nuclear facilities.

Resources provide assistance to the International Atomic Energy Agency (IAEA), the Nuclear Energy Agency, the IAEA's Waste Safety Standards Committee, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, and many other working groups and committees for the preparation and updating of safety guides and standards. In addition, resources provide for staff assistance to the foreign assignee program and for bilateral and multilateral exchanges of technical information.

### RESEARCH

STRATEGIC GOAL STRATEGIES SUPPORTED BY RESEARCH

Safety: To improve the NRC's regulatory programs and to anticipate and resolve safety issues.

Security: To inform the security activities of the agency.

For FY 2015, the NRC requests \$0.4 million, including 2.4 FTE, to support research activities. This represents no change in resources or workload when compared with the FY 2014 enacted budget.

The Research Product Line supports activities to identify, lead, and/or sponsor reviews that support the resolution of ongoing and future safety issues, including providing tools and expertise needed to support the NRC's independent decision-making process. The FY 2015 budget allocates resources to provide assistance on complex licensing cases, such as application of codes for decommissioning reviews and site reviews employing bio-remediation as the remediation process chosen for site cleanup at shallow sites with uranium contamination and *in situ* leach uranium recovery facilities.

## SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC completed seven in-situ recovery (ISR) and uranium recovery licensing actions, including issuing the Lost Creek ISR safety evaluation report and environmental assessment and the Hydro Resources, Inc., license renewal acceptance review.

The agency issued the F-Tank Farm (FTF) technical review report on plutonium waste release modeling, which evaluates work performed by DOE after NRC's FTF Technical Evaluation Report (TER) but before the waste determination was finalized by DOE. Review of work performed by DOE between issuance of the NRC staff's TER and DOE's issuance of the final waste determination affirmed the need for plutonium (and other key radionuclide) solubility experiments to support key modeling assumptions made in FTF and H-Tank Farm performance assessments prepared for the Savannah River Site.

The agency issued the Advisory Council on Historic Preservation (ACHP) letter on the path forward for the Dewey-Burdock Section 106 consultation, which invited ACHP to participate in future Section 106 interactions. The agency participated in a U.S. Environmental Protection Agency uranium recovery contamination workshop held in Gallup, NM, and it met with the Navajo president as part of the Navajo 5-year plan activities.

The agency briefed the Advisory Committee on Reactor Safeguards Subcommittee on Site-Specific Analysis Rulemaking to inform the Subcommittee on Radiation Protection and Nuclear Materials about the preliminary draft rule language for 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," that was published for public comment in December 2012.

The agency held a technical meeting with the U.S. Army to identify the path forward for Schofield Barracks and Pohakuloa Training Area in Hawaii, which contain depleted uranium from Davey Crockett Munitions.

The NRC held a public Webinar in June 2013 to seek input from the public, licensees, Agreement States, non-Agreement States, and other stakeholders on a potential rulemaking to address prompt remediation of residual radioactivity during the operational phase of licensed material sites and nuclear reactors. The meeting was held as directed by the Staff Requirements Memorandum (SRM) SRM-SECY- 07-0177 and the previously issued SRM-SECY-12-0046.

# **OUTPUT INDICATORS**

## **LICENSING**

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Γarget	Complete 2 final	Complete	Complete	Complete	Complete	Complete
	EIS or draft	environmental reviews	environmental	environmental	environmental	environmental
	EIS.* Complete 2	consistent with the	reviews	reviews	reviews	reviews
	complex EAs.	Environmental	consistent with	consistent with	consistent with	consistent with
		Protection and	the	the	the	the
		Performance	Environmental	Environmental	Environmental	Environmental
		Assessment Operating	Protection and	Protection and	Protection and	Protection and
		Plan.	Performance	Performance	Performance	Performance
			Assessment	Assessment	Assessment	Assessment
			Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan
Actual	Target met -	Target met - Completed	Target met -	Target met - All		
	Completed draft	Final Supplemental EISs	Issued final EIS	milestones		
	EISs for AREVA,	for the Nichols Ranch	For proposed	completed.		
	Eagle Rock and	and Lost Creek ISR	GE=Hitachi			
	GE-Silex license	license	Global Laser			
	applications.	applications. Completed	Enrichment, LLC			
	Completed the	Final EIS for AREVA,	Facility, issued			
	Final	Eagle Rock Enrichment	Both Draft and			
	Supplemental EIS	Facility license	Final EIS for			
	for the Moore	application. Issued draft	proposed			
	Ranch ISR license	EA (complex) for	international			
	application.	Nuclear Fuel Service	isotopes			
	Completed one	license renewal	Deconversion			
	complex EA for	application for public	Facility: issued			
	the Prairie Island	review and	final Complex EA			
	ISFSI License	comment. Completed	for proposed			
	Amendment.	Supplement to the EA	Nuclear Fuel			
		(complex) for the Pa'ina	Service License			
		Hawaii, LLC Underwater	Renewal, and			
		irradiator license	issued final EA for			
		application	proposed Calvert			
			Cliffs ISFSI License			
			Renewal.			

<sup>\*</sup>Within 45 days of acceptance of application and environmental report, publish notice of intent to prepare the EIS and proposed schedule in the Federal Register

Elimin	Eliminate The Need For Some Site Specific Environmental Impact Statements (I.E. By Reducing Resource Needs) By Developing A Generic Environmental Impact Statement (GEIS) For Uranium Recovery Environmental Reviews.*						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	Projected savings of \$1,000K and 4 FTE	Projected Savings of \$450K and 0.7 FTE	Projected savings of \$450K and 0.7 FTE	Projected savings of \$450K and 0.7 FTE	Being replaced by new efficiency measure – "The use of presubmission audits will reduce the time needed for completing safety evaluation reports by 10 percent or 2.5 months" in FY 2015.	•	
Actual	\$1.2 million and 0 FTE**	\$773 thousand and 0 FTE	\$773 thousand and 0.7 FTE	\$773 thousand and 0.7 FTE			

<sup>\*</sup>Between FY 2008 and FY 2013, the staff expected to receive 18 in-situ recovery (ISR) uranium recovery license applications. The development of a Generic Environmental Impact Statement (GEIS) was expected to eliminate the need to develop site-specific environmental impact statements (EISs) for some of these applications. Rather than developing a site-specific EIS for each site the staff will be able to "tier off" the GEIS and instead rely on a less resource intensive supplemental environmental impact statement or a site specific supplemental EIS to evaluate the environmental impacts of the site-specific ISR license request (total savings of at least \$2.0M and 7.0 FTE in FY 2008-FY 2011 and beyond.) The final GEIS was issued in June 2009 on schedule.

<sup>\*\*</sup> Target not met due to a decrease in actual number of reviews and increasing stakeholder involvement.

The use	of pre-submission aud	its will reduce the	e time needed for con	npleting safety evalu	ation reports by 10 p	ercent or 2.5 months.
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New Indicator in					Reduction of 10%
	FY 2015					or 2.5 months.*
Actual	New Indicator in					
	FY 2015					

<sup>\*</sup>Preliminary target; will undergo further development.

Clean L	Clean Up Complex Material Sites, Fuel Cycle Sites, Power Reactors, And Research/Test Reactors; And Complete Uranium Recovery License Reviews.						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	Complete licensing	Complete licensing	Complete licensing	Complete licensing	Complete licensing	Complete licensing	
	actions consistent	actions consistent	actions consistent	actions as	actions as	actions as	
	with the	with the	with the	scheduled in the	scheduled in the	scheduled in the	
	Decommissioning	Decommissioning	Decommissioning	Decommissioning	Decommissioning	Decommissioning	
	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	

# **NUCLEAR MATERIALS AND WASTE SAFETY**

Actual	Consistent with	Completed 29	Completed	Completed several
	the	financial assurance	Decommissioning at	In-Situ Leach (ISL)
	Decommissioning	reviews. Complet	4 sites (3 Research	and Uranium
	Operating Plan,	ed 25 licensing	Reactors and 1	Recovery licensing
	completed 15	actions related to	complex materials	actions including
	financial assurance	decommissioning	site), completed 52	Crow Butte
	reviews.	and operating	regulatory licensing	Resources - North
	Completed 55	facilities	actions including 41	Trend Expansion
	licensing actions		financial assurance	Application -
	related to		reviews, and	Completed Final
	decommissioning		completed 2	Safety Evaluation
	and operating		uranium recovery	Report, issued
	facilities.		pre-submission	amendment for
			reviews.	2014 Surety
				update for
				Kennecott –
				Sweetwater, and
				issued Approval
				Letter/Technical
				Evaluation Repot
				for Uranerz Energy
				Corp Hank &
				Nichols ISL -
				Wellfield PA No. 1
				Review.
				<u> </u>

## **OVERSIGHT**

Provide Support To DOE For Waste Incidental To Reprocessing (WIR) Activities.							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	
Target	Complete WIR	Complete WIR	Complete WIR	Complete WIR	Complete WIR	Complete WIR	
	review or	review or	review and	review or	review or	review or	
	monitoring	monitoring	monitoring plan	monitoring	monitoring	monitoring	
	plan/activities as	plan/activities as	activities as	plan/activities as	plan/activities as	plan/activities as	
	scheduled in the	scheduled in the	scheduled in the	scheduled in the	scheduled in the	scheduled in the	
	Environmental	Environmental	Environmental	Environmental	Environmental	Environmental	
	Protection and	Protection and	Protection and	Protection and	Protection and	Protection and	
	Performance	Performance	Performance	Performance	Performance	Performance	
	Assessment	Assessment	Assessment	Assessment	Assessment	Assessment	
	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	Operating Plan.	
Actual	Target met -	Target met -	Target met -	Target met -			
	Completed 3	Completed 2	Completed 4 WIR	Continued			
	monitoring visits	monitoring visits	Monitoring on site	monitoring			
	and issued a	and issued a	observation visits at	activities for both			
	request for	second request for	3 sites, issued	the Saltstone			
	additional	additional	technical evaluation	Disposal Facility			
	information on the	information for	reports for both the	(SDF) and F-Tank			
	revised	the Savannah	Savannah River Site	Farm at the			
	performance	River Site's	Saltstone Disposal	Savannah			
	assessment for the	Saltstone Disposal	Facility revised	River Site.			
	Savannah River	Facility. Issued a	performance	Completed			

Site's Saltstone	request for	assessment and the	monitoring	
Disposal Facility.	additional	F-Tank Farm draft	activities include	
Completed 1	information and	waste	issuance	
monitoring visit	technical	determination, and	of the revised SDF	
for Idaho National	evaluation report	issued the technical	Monitoring Plan	
Laboratory.	for the Savannah	evaluation report	and observation	
	River Site's F Tank	on the West Valley	visits for	
	Farm. Issued a	Melter Feed Tanks	both SDF and F-	
	request for	draft waste	Tank Farm.	
	additional	determination.		
	information, a			
	waste			
	determination,			
	and technical			
	evaluation report			
	for the West			
	Valley melter.			

## **RESEARCH**

	Timeliness Of Completing Actions On Critical Research Programs.*									
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	90% of major milestones met on or before their due	90% of major milestones met on or before their due	90% of major milestones met on or before their due	90% of major milestones met on or before their due	90% of major milestones met on or before their due	90% of major milestones met on or before their due				
	date.	date.	date.	date.	date.	date.				
Actual	100% across	NA**	100% across	NA**						
	programs.		programs.							

<sup>\*</sup>Critical research programs typically respond to high priority needs from the Commission and NRC's licensing organizations. Critical research programs regarding the highest priority needs identified at the beginning of the fiscal year.

<sup>\*\*</sup> There were no critical milestones associated with the research activities conducted in this business line in FY 2011 and FY 2013, thus there is no performance data to report.

	Acceptable Technical Quality Of Agency Research Technical Products.*								
	FY 2010 FY 2011 FY 2012 FY 2013 FY 2014 FY 2015								
Target	Combined score	Combined score	Combined score	Combined score ≥	Combined score ≥	Combined score ≥			
	≥3.5	≥3.5	≥3.5	3.75	3.75	3.75			
Actual	4.6	NA**	4.5	NA**					

<sup>\*</sup>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.

<sup>\*\*</sup> No research products produced for this Business Line during FY 2011 and FY



## PERFORMANCE MEASUREMENT

The U.S. Nuclear Regulatory Commission (NRC) is in the process of updating its Strategic Plan for fiscal years (FY) 2014 – 2018. The performance measures and the associated performance indicators and criteria are currently under consideration by the Commission as part of the development process for the final NRC Strategic Plan.

Measuring and monitoring performance is one of the four components of the NRC's Planning, Budgeting, and Performance Management (PBPM) process. The other components are setting the strategic direction, determining planned activities and resources and assessing performance.

On February 27,2014, the NRC submitted for publication a Federal Register Notice requesting comment on NUREG 1614, Volume 6, "U.S. Nuclear Regulatory Commission Strategic Plan Fiscal Years 2014-2018." Following Commission final approval, the final Strategic Plan will be submitted to the President and Congress.

The Government Performance and Results Modernization Act (GPRAMA) 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 Performance Budget. 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. The Office of Management and Budget has determined that the NRC does not need to set Agency or Cross-Agency Priority Goals as GPRAMA requires. Thus, no such goals are included in this narrative.

Listed below are the existing FY 2013-2014 Performance Measures that the NRC is still tracking and monitoring and will report the final actual results in FY 2014. These measures may be discontinued after FY 2014. The Commission is currently reviewing recommendations on new FY 2015 performance goals and associated indicators. Following Commission action, the agency will provide the resulting performance goals and associated indicators as a supplemental submission.

## **RELATING GOALS TO RESOURCES**

The table below 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.

Alignment of Resources to NRC Goals (Dollars in Millions) (Excludes Office of the Inspector General)									
	FY 2014 FY 2015								
		Enacted			Request				
Major Programs	Safety	Security	Total	Safety	Security	Total			
Nuclear Reactor Safety	767.3	44.1	811.4	772.0	43.1	815.2			
Nuclear Materials and Waste Safety 200.9 18.8 232.5 206.6 13.0 232.2									
Total	\$968.2	\$62.9	\$1,043.9	\$978.6	\$56.1	\$1,047.4			

## PERFORMANCE INDICATORS

## Safety Goal: ENSURE SAFE USE OF RADIOACTIVE MATERIALS

1	NRR	Number of N	Number of New Conditions Evaluated as Red by the NRC's Reactor Oversight Process*							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	≤3	≤3	≤3	≤3	≤3	TBD				
Actual	0	1	1	0						

<sup>\*</sup>This indicator is the number of new red inspection findings and the number of new red performance indicators during the fiscal year. Programmatic issues at multiunit sites that result in red findings for each individual unit are considered separate conditions for purposes of reporting for this indicator. A red performance indicator and a red inspection finding that are due to an issue with the same underlying causes also are considered separate conditions for purposes of reporting for this indicator. Red inspection findings are included in the fiscal year in which the final significance determination was made. Red performance indicators are included in the fiscal year in which the Reactor Oversight Process (ROP) external Web page was updated to show the red indicator.

2	RES	Number of Sig	Number of Significant Accident Sequence Precursors *(ASPs) of a Nuclear Reactor Accident							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	≤ 0	≤ 0	≤ 0	≤ 0	≤ 0	TBD				
Actual	0	0	0	0						

<sup>\*</sup>Significant ASP events have a conditional core damage probability (CCDP) or  $\Delta$ CDP of greater than  $1x10^3$ . Such events have a 1/1000 ( $1x10^3$ ) or greater probability of leading to a reactor accident involving core damage. An identical condition affecting more than one plant is counted as a single ASP event if a single accident initiator would have resulted in a single reactor accident.

3	NRR	Number of O	Number of Operating Reactors with Integrated Performance That Entered the						
		Multiple/Rep	Multiple/Repetitive Degraded Cornerstone Column or the Unacceptable Performance Column						
		of the Reacto	of the Reactor Oversight Process Action Matrix, or the Inspection Manual Chapter 0350						
		Process is ≤ 3	with No Performan	ce Leading to the In	itiation of an Accide	ent Review Group*			
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	≤3	≤3	≤3 ≤3 ≤3 TBD						
Actual	0	2	2 1 0						

\*This indicator is the number of plants that have entered the process in Inspection Manual Chapter (IMC) 0350, "Oversight of Reactor Facilities in a Shutdown Condition due to Significant Performance and/or Operational Concerns," dated December 15, 2006; the multiple/repetitive degraded cornerstone column; or the unacceptable performance column during the fiscal year (i.e., were not in these columns or process the previous fiscal year). Data for this indicator are obtained from the NRC's external Web Action Matrix Summary page, which provides a matrix of the five columns with the plants listed within their applicable column and notes the plants in the IMC 0350 process. For reporting purposes, plants that are the subject of an approved deviation from the Action Matrix are included in the column or process in which they appear on the Web page. The target value is set based on the expected addition of several indicators and a change in the long-term trending methodology (which will no longer be influenced by the earlier data and will be more sensitive to changes in current performance).

4	NRR	Number of Significant Adverse Trends in Industry Safety Performance is ≤ 1*						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	≤ 1	≤ 1	≤ 1	≤ 1	≤1	TBD		
Actual	0	0	0	0				

<sup>\*</sup>Considering all indicators qualified for use in reporting.

5	ublic or Occupation	al Workers That								
			Exceed Abnor	Exceed Abnormal Occurrence (AO) Criterion I.A.3*						
		FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Reactors	Target	0	0	0	0	0	TBD			
Reactors	Actual	0	0	0	0					
Materials	Target	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2	TBD			
Materials	Actual	0	0	0	0					
Waste	Target	0	0	0	0	0	TBD			
Waste	Actual	0	0	0	0					

<sup>\*</sup>Releases for which a 30-day report under Title 10 of the Code of Federal Regulations (10 CFR) 20.2203(a) (2) is required.

6			Number of Ra Limits	Number of Radiological Releases to the Environment That Exceed Applicable Regulatory Limits					
		FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Reactors*	Target	0	0	0	0	0	TBD		
Reactors	Actual	0	0	0	0				
Materials	Target	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2	TBD		
Materials	Actual	0	0	0	0				
Waste	Target	0	0	0	0	0	TBD		
Waste	Actual	0	0	0	0				

With no event exceeding AO Criterion I.B.

## Security Goal: ENSURE SECURE USE OF RADIOACTIVE MATERIALS

1	NSIR	Unrecovered	Unrecovered Losses of Risk-Significant* Radioactive Sources							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	0	0	0	0	0	TBD				
Actual	0	1**	0	0						

\*"Risk-significant" is defined as any unrecovered, lost, or abandoned sources that exceed the values listed in Appendix P, "Category 1 and 2 Radioactive Material," to 10 CFR Part 110, "Export and Import of Nuclear Equipment and Material." Excluded from reporting under this criterion are those events involving sources that are lost or abandoned under the following conditions: (1) sources abandoned in accordance with the requirements in 10 CFR 39.77(c), (2) recovered sources with sufficient indication that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 did not occur during the time that the source was missing, (3) unrecoverable sources lost under such conditions that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 were not known to have occurred, (4) other sources that are lost or abandoned and declared unrecoverable, (5) a source for which the agency has made a determination that its risk significance is low based on its location (e.g., water depth) or its physical characteristics (e.g., half-life and housing) and its surroundings, (6) cases in which all reasonable efforts have been made to recover the source, and (7) the determination was made that the source is not recoverable and will not be considered a realistic safety or security risk under this indicator. (This includes licenses under the Agreement States.)

<sup>\*\*</sup>There were no losses and one theft of radioactive nuclear material that the NRC considered to be risk significant during FY 2011.

2	NSIR	Number of Substantiated* Cases of Actual Theft or Diversion of Licensed, Risk-Significant Radioactive Sources or Formula Quantities** of Special Nuclear Material or Attacks That							
		Result in Rad	Result in Radiological Sabotage***						
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	0	0	0	0	0	TBD			
Actual	0	0							

<sup>\*&</sup>quot;Substantiated" means a situation in which an indication of loss, theft, or unlawful diversion, such as an allegation of diversion, report of lost or stolen material, statistical processing difference, or other indication of loss of material control or accountability, cannot be refuted following an investigation and requires further action on the part of the agency or other proper authorities.

<sup>\*\*\*&</sup>quot;Radiological sabotage" is defined in 10 CFR 73.2, "Definitions."

3	NSIR	Number of Su	ubstantiated Losses	es of Special Nuclea	f Special Nuclear Material or					
			Substantiated Inventory Discrepancies of Formula Quantities of Special Nuclear Material							
		Are Judged To Be Caused by Theft or Diversion or by Substantial Breakdown of the								
		Accountabilit	y System							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	0	0	0	0	0	TBD				
Actual	0	0	0	0						

4	NSIR	Number of Su	Number of Substantial Breakdowns* of Physical Security or Material Control (i.e., Access								
		Control, Cont	ontrol, Containment, or Accountability Systems) That Significantly Weakened the Protection								
		against Theft	against Theft, Diversion, or Sabotage								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015					
Target	≤1	≤ 1	≤1	≤1	≤1	TBD					
Actual	0	0	0	0							

<sup>\*</sup>A "substantial breakdown" is defined as a red finding in the security cornerstone of the ROP or any plant or facility that is determined to either have overall unacceptable performance or be in a shutdown condition (inimical to the effective functioning of the Nation's critical infrastructure) as a result of significant performance problems or operational events.

<sup>\*\*</sup>A formula quantity of special nuclear material is defined in 10 CFR 70.4, "Definitions."

5	NSIR	Number of Sig	Number of Significant Unauthorized Disclosures *of Classified and/or Safeguards Information							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015				
Target	0	0	0	0	0	TBD				
Actual	0	0	0	0						

## \*"Significant unauthorized disclosure" is defined as a disclosure that harms national security or public health or safety.

## DATA COLLECTION PROCEDURES FOR VERIFICATION AND VALIDATION OF PERFORMANCE INDICATORS

Most of the data used to measure the NRC's performance against its strategic goals related to safety and security are obtained or derived from the NRC's abnormal occurrence (AO) data and reports or preliminary notifications of events submitted by licensees. The AO criteria have been amended to ensure that they are consistent with the NRC's Updated Strategic Plan for FY 2008-FY 2013 and the NRC rulemaking on Title 10 of the Code of Federal Regulations (10 CFR) Part 35, "Medical Use of Byproduct Materials."

The NRC developed its AO criteria in order to comply with the legislative intent of Section 208 of the Energy Reorganization Act of 1974, as amended. The Act requires the NRC to inform Congress of unscheduled incidents or events that the Commission determines to be significant from the standpoint of public health and safety. Events that meet the AO criteria are included in an annual "Report to Congress on Abnormal Occurrences" (NUREG-0090). In addition, in 1997, the Commission determined that events occurring at Agreement State licensed facilities that meet the AO criteria should be reported in the annual AO report to Congress. Therefore, the AO criteria developed by the NRC are uniformly applied to events that occur at facilities licensed or otherwise regulated by the NRC and the Agreement States.

Data for AOs originate from external sources, such as Agreement States and NRC licensees. The NRC believes these data are credible because (1) the information needed from external sources is required to be reported to the NRC by regulations, (2) the NRC maintains an aggressive inspection program that, among other activities, audits licensees and evaluates Agreement State programs to determine whether information is being reported as required by the regulations, and (3) there are agency procedures for reviewing and evaluating licensees. The NRC database systems for safety that support this process include the Licensee Event Report Search System (LER Search), the Accident Sequence Precursor (ASP) Database, the Nuclear Material Events Database (NMED), and the Radiation Exposure Information Report System. The NRC database systems for security that support this process include Suspicious Incidents Data System (SIDS).

The NRC has established procedures for the systematic review and evaluation of events reported by NRC licensees and Agreement State licensees. The objective of the review is to identify events that are significant from the standpoint of public health and safety based on criteria that include specific thresholds. The NRC uses a number of sources to determine the reliability and the technical accuracy of event information reported to the NRC. Such sources include (1) NRC licensee reports, (2) NRC inspection reports, (3) Agreement State reports, (4) periodic review of Agreement State regulatory programs, (5) NRC consultant/contractor reports, and (6) U.S. Department of Energy Operating Experience Weekly Summaries. In addition, there are daily interactions and exchanges of event information between Headquarters (HQ) and the regional offices, as well as periodic conference calls between HQ, the regions, and Agreement States to discuss event information. Identified events that meet the AO criteria

are validated and verified by all applicable NRC HQ program offices, regional offices, and agency management before submission to Congress.

The following performance indicators have been identified for verification and validation.

GOAL 1—SAFETY: ENSURE ADEQUATE PROTECTION OF PUBLIC HEALTH AND SAFETY AND THE ENVIRONMENT.

#### **NUCLEAR REACTOR SAFETY**

#### Strategic Outcomes:

- Prevent the occurrence of any nuclear reactor accidents.
- Prevent the occurrence of any inadvertent criticality events.
- Prevent the occurrence of any acute radiation exposures resulting in fatalities.
- Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures.
- Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts.

#### Performance Measures:

1-Number of new conditions evaluated as red by the NRC's Reactor Oversight Process.

#### Reactor Safety Target: Less than or equal to three

Verification: The data for this performance indicator are collected in two ways as part of the NRC's Reactor Oversight Process (ROP). NRC inspectors collect inspection findings at least quarterly. 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 (SDP). Licensees collect the data for performance indicators and submit it to the NRC at least 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.

The NRC enhances the quality of its inspections through inspector feedback and periodic reviews of results. The 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 and incorporates feedback received from all stakeholders as appropriate.

Validation: 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.

This indicator is the number of new red inspection findings plus the number of new red performance indicators during the fiscal year. Programmatic issues at multiunit sites that result in red findings for each individual unit are considered separate conditions for purposes of reporting for this indicator. A red performance indicator and a red inspection finding that are because of an issue with the same underlying causes are also considered separate conditions for the purposes of reporting for this indicator. Red inspection findings are included in the fiscal year in which the final significance determination was made. Red performance indicators are included in the fiscal year in which the ROP external Web page was updated to show the red indicator.

2-Number of significant accident sequence precursors of a nuclear accident.

## Reactor Safety Target: Zero

Verification: The NRC has an ASP Program to evaluate U.S. nuclear power plant operating experience to identify, document, and rank operating events that were most significant in terms of the potential for inadequate core cooling and core damage (i.e., precursors). The ASP Program evaluation process has five steps. First, the NRC screens operating experience data to identify events or conditions that may be potential precursors to a nuclear accident. The data that are evaluated include LERs, Augmented Inspection Team or special team reports, and other events that the NRC staff has identified as potential precursors. The second step is to conduct an engineering review of these screened events, using specific criteria, to identify those events requiring detailed analyses as candidate precursors. Third, the NRC staff calculates a conditional core damage probability (CCDP) or increase in core damage probability ( $\Delta$ CDP) by mapping failures observed during the event or condition to accident sequences in risk models. Fourth, the preliminary potential precursor analyses are provided to the NRC staff and the licensee for independent peer review. However, for ASP analyses of noncontroversial, low-risk precursors, formal peer reviews by licensees may not be performed. The NRC staff will continue to perform an inhouse review process for all analyses. Lastly, findings from the analyses are provided to the licensee and the public. Note that there is a time lag in obtaining ASP analysis results because they are often based on LERs (submitted up to 60 days after an event) and completed inspection activities in which most take months to complete. Final data will be reported in the year in which the event occurred.

Validation: The ASP program identifies significant precursors as those events that have a 1/1000 (1x10<sup>-3</sup>) or greater probability of leading to a nuclear reactor accident involving core damage. Significant accident sequence precursor events have a CCDP or  $\triangle$ CDP of  $\geq 1 \times 10^{-3}$ .

3-Number of operating reactors with integrated performance that entered the multiple/repetitive degraded cornerstone column or the unacceptable performance column of the Reactor Oversight Process Action Matrix, or the Inspection Manual Chapter 0350 process is ≤3, with no performance leading to the initiation of an Accident Review Group.

## Reactor Safety Target: Less than or equal to three

Verification: The NRC ROP collects the data for this performance indicator on a continuous basis, and the information is published at least quarterly. NRC inspectors use detailed formal procedures to conduct inspections of licensee performance, and NRC managers review the results to ensure the completeness, accuracy, consistency, timeliness, and validity of the data. The NRC enhances the quality of its inspections through inspector feedback and periodic reviews of results. The inspectors are trained through a rigorous qualification program. The quality is also improved through continuous feedback from licensees and inspectors that is incorporated into guidance documents. The NRC publishes the data on the agency's Web site and incorporates feedback received from all stakeholders as appropriate.

Validation: The information that the ROP collects covers 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. Senior agency managers review plants annually that are identified as having performance issues and report the results to the Commission. The same is true of the agency's ROP self-assessment.

This indicator is the number of plants that have entered the process in Inspection Manual Chapter 0350, "Oversight of Reactor Facilities in a Shutdown Condition due to Significant Performance and/or Operational Concerns," dated December 15, 2006; the multiple/repetitive degraded cornerstone column; or the unacceptable performance column during the fiscal year (i.e., were not in these columns or process the previous fiscal year). Data for this indicator are obtained from the NRC external Web Action Matrix Summary page that provides a matrix of the five columns with the plants listed within their applicable column and notes the plants in the Manual Chapter 0350 process. For reporting purposes, plants that are the subject of an approved deviation from the Action Matrix are included in the column or process in which they appear on the Web page.

The Accident Review Group is described in the NRC's Management Directive 8.9, "Accident Investigation," dated August 26, 2005.

4—Number of significant adverse trends in industry safety performance is  $\leq 1$ .

## Reactor Safety Target: Less than or equal to one

Verification: Data for this performance indicator are derived from data supplied by all power plant licensees in LERs, monthly operating reports, and performance indicator data submitted for the ROP. These data are required by 10 CFR 50.73, "Licensee Event Report System," or plant-specific technical specifications, or they are submitted by all plants as part of the ROP. Detailed NRC guidelines and procedures are in place to control each of these reporting processes. The NRC reviews these procedures for appropriateness both periodically and in response to licensee feedback. The NRC also conducts periodic inspections of licensees' processes for collecting and submitting the data to ensure completeness, accuracy, consistency, timeliness, and validity.

All licensees report the data at least quarterly. The NRC staff reviews all of the data and conducts inspections to verify safety-significant information. The NRC also employs a contractor to review the data that licensees submit, input the data into a database, and compile the data into various indicators. Quality assurance processes for this work have been established and included in the contract statement of work. The experience and training of key personnel are controlled through administration of the contract. The contractor identifies discrepancies to licensees and the NRC for resolution. The NRC reviews the indicators and publishes them on the agency's Web site quarterly. The agency also incorporates feedback from licensees and the public, where appropriate. The target value is set based on the expected addition of several indicators and a change in the long-term trending methodology.

Validation: The data and indicators that support reporting against this performance indicator provide a broad range of information on nuclear power plant performance. The NRC staff tracks indicators and applies statistical techniques to indicate whether industry performance is improving, steady, or degrading over time. If the staff identifies any adverse trends, the NRC addresses the problem through its processes for addressing generic safety issues and issuing generic communications to licensees. The NRC is developing additional, risk-informed indicators to enhance the current set of indicators. In doing so, the staff considers the costs and benefits of collecting the data through ongoing, extensive interactions with industry about the indicators. Senior agency managers review the Industry Trends Program annually and report the results to the Commission.

5-Number of events with radiation exposures to the public and occupational workers from nuclear reactors that exceed Abnormal Occurrence Criterion I.A.3

## Reactor Safety Target: Zero

Verification: Licensees report overexposures through the LER process, which are then entered into a searchable 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.

Validation: 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.

6-Number of radiological releases to the environment from nuclear reactors that exceed applicable regulatory limits.

## **Reactor Safety Target: Zero**

Verification: As with worker overexposures, licensees report environmental releases of radioactive materials that are in excess of regulations or license conditions through the LER process, which are then 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 the 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 followup inspections.

Validation: 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 that must be taken for violations of the regulations or license conditions, based on the severity of the event. This performance indicator includes dose values that are classified as being as low as is reasonably achievable (ALARA) in Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation To Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and the public dose limits in 10 CFR Part 20, "Standards for Protection against Radiation."

#### **NUCLEAR MATERIAL AND WASTE SAFETY**

## Strategic Outcomes:

- Prevent the occurrence of any inadvertent criticality events.
- Prevent the occurrence of any acute radiation exposures resulting in fatalities.
- Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures.
- Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts.

#### Performance Indicators:

1—Number of events with radiation exposures to the public and occupational workers from radioactive material that exceed Abnormal Occurrence Criteria I.A.3

Materials Safety Target: Less than or equal to two

Waste Safety Target: Zero

Verification: 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 as determined by a physician as a criterion for this indicator. AO Criterion I.A.3 is used as the basis for this indicator.

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.

The fuel facilities, nuclear material users, spent fuel storage and transportation, decommissioning, and low-level waste programs contain elements that 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 NMED.

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 training in HQ, the regions, and Agreement States; and discussions at all Agreement State and the Conference of Radiation Control Program Directors (CRCPD) meetings.

Validation: There is a logical basis for using events involving radiation exposures to the public and occupational workers from radioactive material that exceed AO Criterion I.A as a performance indicator for ensuring the protection of public health and safety. An event is considered an AO if it is determined to be significant from the standpoint of public health or safety. The NRC's regulatory process, including licensing, inspection, guidance, regulations, and enforcement activities, is designed to mitigate the likelihood of an event that would exceed AO Criterion I.A.3.

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.

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 of the NRC to become aware 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 the known consequences of an event. 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.

2-Number of radiological releases to the environment that exceed applicable regulatory limits.

Materials Safety Target: Less than or equal to two

Waste Safety Target: Zero

Verification: This performance indicator is defined as any release to the environment from the following activities: fuel facilities, nuclear material users, spent fuel storage and transportation, decommissioning, and low-level waste activities that exceed applicable regulations as defined in 10 CFR 20.2203(a)(3). A 30-day written report is required on such releases.

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.

The fuel facilities, nuclear material users, spent fuel storage and transportation, decommissioning, and low-level waste 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.

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 all Agreement State and CRCPD meetings.

Validation: The regulations in 10 CFR Part 20 provide standards for protection against radiation. There is a logical basis for tracking releases subject to the 30-day reporting requirement in 10 CFR 20.2203(a)(3)(ii) 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.

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.

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 of the NRC to become aware 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 the known consequences of an event.

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.

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.

Because the performance indicator includes ALARA values, which are not safety limits, and because Appendix I to 10 CFR Part 50 allows licensees to temporarily exceed the ALARA dose values, for good reason, the performance indicator for materials is set to less than or equal to .

GOAL 2—SECURITY: ENSURE THE SECURE USE AND MANAGEMENT OF RADIOACTIVE MATERIALS.

#### NUCLEAR REACTOR AND NUCLEAR MATERIALS AND WASTE SECURITY

#### Strategic Outcome

Prevent any instances in which licensed radioactive materials are used domestically in a manner hostile to the security of the United States.

### Performance Indicators

1-Number of unrecovered losses or thefts of risk-significant radioactive sources.

## Target: Zero

Under AO Criterion I.C.1, the agency counts any unrecovered lost, stolen, or abandoned sources that exceed the values listed in Appendix P, "Category 1 and 2 Radioactive Material," to 10 CFR Part 110, "Export and Import of Nuclear Equipment and Material." Excluded from reporting under this criterion are those events involving sources that are lost, stolen, or abandoned under certain conditions, specifically, (1) sources abandoned in accordance with the requirements of 10 CFR 39.77(c). (2) sealed sources contained in labeled, rugged source housings, (3) recovered sources with sufficient indication that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 did not occur during the time the source was missing, (4) unrecoverable sources lost under such conditions that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 were not known to have occurred. and (5) other sources that are lost or abandoned and declared unrecoverable for which the agency has determined that the risk significance of the source is low based on the location (e.g., water depth) or physical characteristics (e.g., half-life and housing) of the source and its surroundings, (6) where all reasonable efforts have been made to recover the source, and (7) where it has been determined that the source is not recoverable and would not be considered a realistic safety or security risk under this indicator. (This includes licenses under the Agreement States.)

Verification: 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 four 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 an essential system 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."

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 events in NMED. In some cases, upon receiving a report, the

NRC or Agreement State initiates an independent investigation that verifies the reliability of the reported information. When performed, these investigations enable the NRC or Agreement State to verify the accuracy of the reported data.

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. In addition, 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.

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 its 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 the recovery of a risk-significant source within 30 days of recovery.

Validation: 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 expected to be 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 followup.

If an event subject to the reporting requirements described above 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, the NRC, or an Agreement State to mitigate the situation and prevent recurrence.

2–Number of substantiated cases of theft or diversion of licensed risk-significant radioactive sources or formula quantities of special nuclear material or attacks that result in radiological sabotage.

## Target: Zero

Verification: In AO Criterion I.C.2, "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, or other indication of loss of material control or accountability—that cannot be refuted following an investigation. A formula quantity of special nuclear material (SNM) is defined in 10 CFR 70.4, "Definitions." Radiological sabotage is defined in 10 CFR 73.2, "Definitions." Licensees subject to the requirements in 10 CFR Part 73 must call the NRC within one 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." 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 that are 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 describing the event and the steps that the licensee took to protect the nuclear facility. This information will enable the NRC to adequately assess whether radiological sabotage has occurred.

Validation: Events subject to reporting requirements are those that endanger the 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.

3-Number of substantiated losses of formula quantities of special nuclear material or substantiated inventory discrepancies of a formula quantity of special nuclear material that are judged to be caused by theft, diversion, or substantial breakdown of the accountability system.

## Target: Zero

Verification: 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 three 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 materials event data to ensure that licensees are reporting and collecting the proper event data.

Validation: "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 IT 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. 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 vulnerability.

4—Number of substantial breakdowns of physical security or material control (i.e., access control containment or accountability systems) that significantly weaken the protection against theft, diversion, or sabotage.

## Target: Less than or equal to one

Verification: In AO Criterion I.C.4, a "substantial breakdown" is defined as a red finding in the security cornerstone of the ROP or significant performance problems or operational events 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.

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 three 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.

Validation: 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.

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.

5-Number of significant unauthorized disclosures of classified or Safeguards Information.

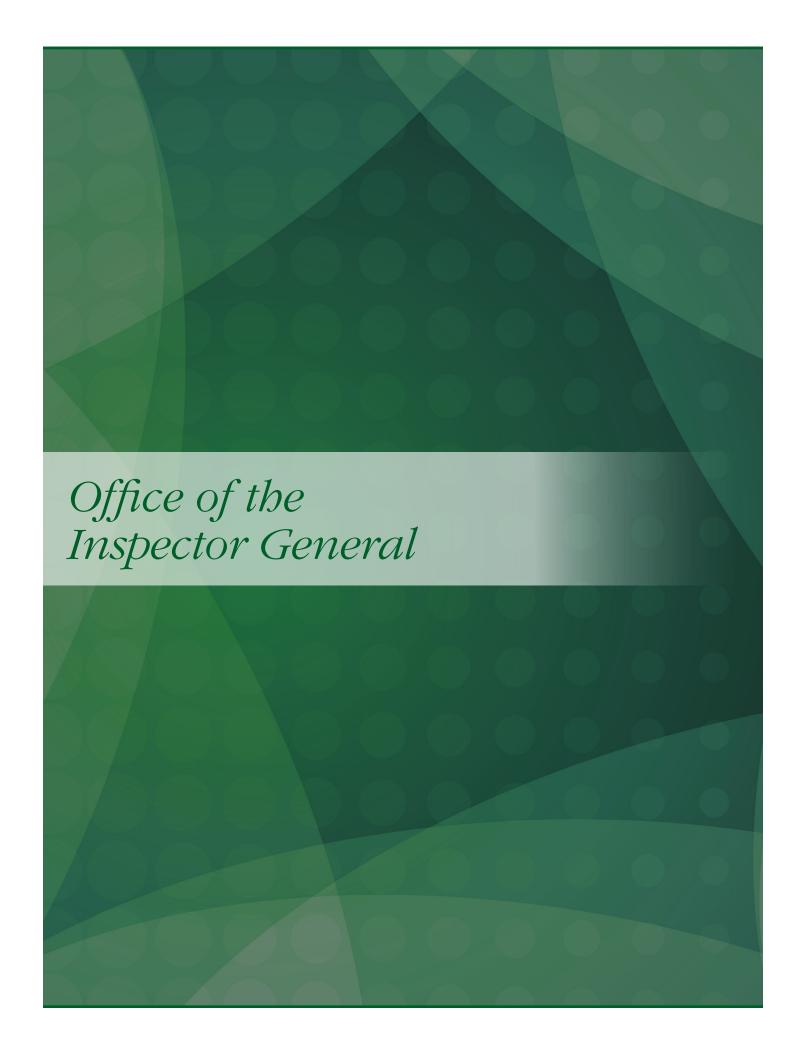
## Target: Zero

Verification: 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), 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 to public health and safety. 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 followup 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.

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 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.

Validation: 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.



## OFFICE OF THE INSPECTOR GENERAL

NRC's 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 (1) independently and objectively conduct and supervise audits and investigations relating to NRC programs and operations, (2) prevent and detect fraud, waste, and abuse, and (3) promote economy, efficiency, and effectiveness in NRC's programs and operations.

In addition, OIG reviews existing and proposed regulations, legislation, and directives and provides comments, as appropriate, and makes recommendations to the agency concerning their impact on the economy and efficiency of agency programs and operations. The Inspector General keeps the NRC Chairman and members of Congress informed about problems, recommends corrective actions, and monitors NRC's progress in implementing these actions.

The Consolidated Appropriations Act, 2014 provided that notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized in 2014 and subsequent years to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the Inspector General Act of 1978 (5 U.S.C. App.) with respect to the Nuclear Regulatory Commission.

Budget Overview NRC OIG Budget Authority by Appropriation (Dollars in Millions)								
FY 2014         FY 2015         Delta           Enacted         Request         FY 2015 – FY 2014								
Summary	\$M	\$M	\$M					
<b>Budget Authority</b>	11.955	12.071	0.116					
Offsetting Fees	9.995	10.099	0.104					
Net Appropriated	1.960	1.972	0.012					

Numbers may not add due to rounding.

## PROGRAM RESOURCE SUMMARY

The FY 2015 proposed budget request for the Office of the Inspector General is \$12.071 million, which includes \$10.661 million in salaries and benefits to support 63 FTE, and \$1.410 million in program support. These resources will fund the Audits and Investigations of \$11.221 million for NRC activities and 58 FTE and \$850,000 and 5 FTE for Audits and Investigations for Defense Nuclear Facilities Safety Board (DNFSB) activities).

Budget Overview Total Budget Authority for NRC OIG (Dollars in Millions)										
FY 2014 FY 2015 Delta Enacted Request FY 2015 – FY 2014										
Summary	\$M	FTE	\$M	FTE	\$M	FTE				
Program Support	1.410		1.410		0					
Program Salaries and Benefits 10.545 63 10.661 63 0.116										
Total										

Numbers may not add due to rounding.

The FY 2015 budget request for NRC Office of the Inspector General is \$12.071 million, which includes \$10.661 million in salaries and benefits to support 63 FTE, and \$1.410 million in program support. These resources will support Inspector General auditing and investigation functionsfor both the NRC and the Defense Nuclear Facilities Safety Board (DNFSB).

Budget Authority for NRC OIG Program (Dollars in Millions)								
FY 2014 FY 2015 Delta Enacted Request FY 2015 – F								
Summary	\$M	FTE	\$M	FTE	\$M	FTE		
Program Support	1.245		1.245		0			
Program Salaries and Benefits 9.860 58 9.976 58 0.116						0		
Total \$11.105 58 \$11.221 58 \$0.116								

Numbers may not add due to rounding.

The FY 2015 proposed budget request for auditing and investigation activities for NRC programs is \$11.221 million, which includes \$9.976 million in salaries and benefits to support 58 FTE, and \$1.245 million in program support.

Budget Authority for DNFSB OIG Program (Dollars in Millions)							
	FY 2014 Enacted		FY 2015 Request		Delta FY 2015 – FY 2014		
Summary	\$M	FTE	\$M	FTE	\$M	FTE	
Program Support	.165		.165		0		
Program Salaries and Benefits	nefits .685 5		.685	5	0	0	
Total \$.850 5 \$.850 5 \$0							

Numbers may not add due to rounding.

The FY 2015 proposed budget request for auditing and investigation activities for DNFSB programs is \$850,000, which includes \$685,000 in salaries and benefits to support 5 FTE, and \$165,000 in program support.

22

63

0.041

\$0.116

0

0

Budget Authority and Full-Time Equivalents  Budget Authority by Program  (Dollars in Millions)											
FY 2014 FY 2015 Delta Enacted Request FY 2015 – FY 20											
Summary	\$M	FTE	\$M	FTE	\$M	FTE					
NRC Audits	7.314	37	7.389	37	0.075	0					
DNFSB Audits	.678	4	.678	4	0	0					
Sub-Total	7.992	41	8.067	41	0.075	0					
NRC Investigations 3.791 21 3.832 21 0.041											
DNFSB Investigations	The investigations										

Numbers may not add due to rounding.

Sub-Total

Total

The FY 2015 combined budget request for the OIG Audits program is \$8.067 million and 41 FTE and \$4.004 million and 22 FTE for OIG Investigations program.

22

63

4.004

\$12.071

3.963

\$11.955

## **AUDITS PROGRAM**

		Budget	udits t Authority in Millions)			
	FY 2014 Enacted		FY 2015 Request		Delta FY 2015 – FY 2014	
Summary	\$M	FTE	\$M	FTE	\$M	FTE
Program Support	7.992	41	8.067	41	0.075	0
Total	\$7.992	41	8.067	41	\$0.075	0

Numbers may not add due to rounding.

#### **HIGHLIGHTS**

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 2015, OIG requests \$8.067 million and 41 FTE to carry out its Audits Program activities of which \$7.389 million and 37 FTE is for NRC programs and \$678,000 and 4 FTE is for DNFSB programs respectively. With these resources, the Audits Program will conduct approximately 22 audits and evaluations for the NRC. This will enable the OIG to provide coverage of NRC's Reactor Safety, 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 7 audits and evaluations that will cover various DNFSB programs and operations.

#### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase in the Audits Program to fund the January 2015 pay raise, within-grade and benefits costs increases in FY 2014 and FY 2015.

#### FY 2014-FY 2015 AUDITS PROGRAM PERFORMANCE GOALS

- Eighty-five percent of completed audit products or activities will have a high impact on strengthening NRC's safety, security, and/or corporate management programs.
- Obtain agency agreement on at least 92% of OIG audit recommendations.
- Obtain final agency action on an aggregate of 70% of OIG audit recommendations within 2 years.
- Provide effective oversight of DNFSB programs and operations.

#### **SELECTED FY 2013 AUDITS PROGRAM ACCOMPLISHMENTS**

In FY 2013, OIG issued 22 reports pertaining to NRC programs and operations. These reports either evaluate high-risk agency programs or comply with mandatory financial and computer security-related legislation.

#### **EXAMPLES OF RECENTLY COMPLETED WORK ARE AS FOLLOWS:**

## Audit of NRC's Compliance with 10 CFR Part 51 Relative to Environmental Impact Statements

The National Environmental Policy Act of 1969 (NEPA) established a national policy to encourage productive and enjoyable harmony between man and his environment, promote efforts that will prevent or eliminate damage to the environment, and enrich the understanding of ecological systems and natural resources important to the United States. To implement NEPA, Federal agencies must undertake an assessment of the environmental effects of their proposed actions prior to making a decision. The two major purposes of the NEPA process are better informed decisions and citizen involvement. NEPA requires that Federal agencies prepare a detailed statement on the environmental impacts and effects, alternatives to the action, and irreversible commitments of resources involved in the action. This detailed statement is called an Environmental Impact Statement (EIS). NRC's regulations to implement NEPA are found in Title 10, Code of Federal Regulations, Part 51 (10 CFR Part 51). The audit objective was to determine whether NRC complies with the regulations in 10 CFR Part 51 relative to the preparation of environmental impact statements.

#### Audit Results

In recent years, NRC has taken steps to enhance its NEPA reviews and procedures. These initiatives have generated important discussions and provide a context for long-term progress. However, OIG has identified areas of noncompliance with 10 CFR Part 51 relative to disclosure and public involvement. In order to clearly communicate the results of and involve the public in its environmental reviews, NRC management should strengthen its EIS preparation process by (1) publishing a Record of Decision that complies with 10 CFR 51.102 and 51.103, (2)

publishing an EIS that complies with the format provided in 10 CFR Part 51, Appendix A, and (3) performing all regulatory requirements for scoping for EISs that tier off of a generic EIS.

## Audit of NRC's Budget Execution Process

The U.S. Government requires Federal agencies to establish an effective funds control process to ensure funds are used only for the purpose set forth by Congress and that expenditures do not exceed amounts authorized. NRC's budget process consists of strategic planning, budget formulation, submission of the agency's budget to the Office of Management and Budget and Congress, approval of the budget by Congress, budget execution, and the reporting of budget and performance results. The budget execution phase refers generally to the time period during which the budget authority made through an appropriation remains available for obligation by NRC. NRC's task during the budget execution process is to spend appropriated funds to carry out its mission in accordance with fiscal statutes. Between FY 2008 and FY 2012, NRC's budget appropriation ranged from \$926.1 million to \$1,066.9 million. The audit objectives were to determine whether NRC maintains proper financial control over appropriated and apportioned funds to ensure compliance with applicable Federal laws, policies, and regulations and opportunities exist to improve the budget execution process.

#### Audit Results

Overall, the agency maintains proper financial control over appropriated and apportioned funds to ensure compliance with applicable Federal laws, policies, and regulations. However, OIG identified opportunities for improvement in the following areas: (1) NRC's budget formulation and execution processes are not aligned, (2) staff have an insufficient understanding of Financial Accounting and Integrated Management Information System (FAIMIS)<sup>1</sup> reporting capabilities, and (3) incomplete delegation and budget execution training records. Addressing these concerns will strengthen NRC's budget execution process.

#### 2012 NRC Safety Culture and Climate Survey

OIG engaged an independent contractor, Towers Watson, to conduct a fifth, periodic survey of NRC's workforce to assess the agency's safety culture and climate. A clear understanding of NRC's current safety culture and climate facilitates identification of agency strengths and opportunities as it continues to experience significant challenges. These challenges include the licensing of new nuclear facilities, disposal of high-level waste, loss of valuable experience from retirements, operating under continuing resolutions, smaller budgets, and legislation that froze Federal civilian employee pay rates. The survey was administered from September 4 – September 28, 2012. Of 3,755 NRC full and part-time agency employees, 2,981 completed the survey, for an overall return rate of 79 percent. The survey objectives were to (1) measure NRC's safety culture and climate to identify areas of strength and opportunities for improvement, (2) compare the results of this survey against the survey results that OIG reported previously, and (3) provide, where practical, comparative data against other organizations for the qualitative and quantitative findings.

<sup>&</sup>lt;sup>1</sup> On October 1, 2010, NRC implemented FAIMIS as the official system of record for agency financial operations.

#### Audit Results

While the 2012 NRC data was more favorable than industry and national norms, the overall trend was for less favorable results relative to the 2009 survey. The survey identified strengths to maintain with regard to workload and support, training, and communication, while reinforcing the need to improve communication of why decisions were made. Survey results indicated that NRC (1) is losing significant ground on negative reactions when raising views different from senior management, supervisor, and peers; (2) is well below external benchmarks on recognizing and respecting value of human differences; (3) has experienced significant declines in recruiting/retaining the right people and developing people to their full potential; (4) is low and losing ground for effectiveness of performance reviews; and (5) is below external benchmarks with regard to image. The survey also found that less than half of respondents feel action has been taken since the last survey—as many are neutral—which provides the agency a good opportunity for improvement, and it identified a clear opportunity to impact the perception that people sacrifice quality in order to meet metrics.

## Evaluation of NRC's Use and Security of Social Media

On January 21, 2009, President Obama issued a memorandum to the heads of executive agencies that outlined guidance for use of social media to promote greater openness in Government. In January 2011, NRC launched its first official social media site with the release of the NRC blog. The timing of the blog launch proved fortuitous as 3 months later, the Fukushima Daiichi nuclear accident in Japan occurred and NRC realized the benefits of social media for increasing the speed and reach of information dissemination. In the month following the accident, the blog attracted 41,561 views. This remains the highest trafficked period across any NRC social media platform to date. NRC followed the launch of its blog with the launch of a Twitter account (August 2011), YouTube channel (September 2011), and Flickr presence (January 2012). The evaluation objective was to determine how NRC uses social media, the effectiveness and efficiency of NRC's use of social media, and whether there are any privacy and security vulnerabilities associated with its use.

#### Evaluation Results

Over the past 2 years, NRC has made significant progress with its social media program. It is compliant with Federal social media policies and regulations, has developed a strategy and published guidance, and has established and trained a cadre of bloggers from across the agency. The agency has also been very active in generating frequent and informative content across its four official social media platforms, has promoted these sites internally and externally, and has generated respectable subscription and viewership rates across its social media channels. However, the agency can enhance its efficiency and effectiveness in the following areas: (1) integrating social media into existing policies, training, and practices; (2) implementing more social media specific security, training, and awareness safeguards; (3) establishing a more prominent voice in the digital realm; and (4) maximizing the potential of social media to enhance interaction with agency stakeholders and engage them in a dialogue on nuclear issues.

#### **EXAMPLES OF ONGOING AUDIT WORK ARE AS FOLLOWS:**

## Audit of NRC's Oversight of Reciprocity Licenses

In accordance with Section 274 of the Atomic Energy Act, as amended, States may enter into an agreement with NRC to become Agreement States and assume some regulatory authority from NRC. Agreement State licensees that do not also maintain an NRC license can apply for reciprocity to use nuclear materials in areas of NRC jurisdiction. NRC tracks reciprocity licensees using the Reciprocity Tracking System and conducts inspections of Agreement State licensees operating under reciprocity. Although Agreement States must maintain a regulatory oversight program that is adequate and compatible with NRC's, the programs may differ. Also, radioactive sources used by licensees operating under reciprocity can be dangerous. To ensure adequate protection of public health and safety, NRC needs to conduct adequate oversight of Agreement State licensees operating in NRC jurisdiction. The audit objective is to determine whether NRC provides adequate oversight to materials licensees operating under reciprocity.

## Audit of NRC's Task Interface Agreement Process

The Task Interface Agreement (TIA) process is used to address questions or concerns raised with the NRC regarding nuclear reactor safety and the related regulatory and oversight programs. The process should ensure that the concerns are resolved in a timely manner and that Office of Nuclear Reactor Regulation (NRR) responses are appropriately communicated. A TIA is a written request for technical assistance to NRR from a regional or program office. A TIA contains questions on subjects involving regulatory or policy interpretations, specific plant events, or inspection findings. The requesting organization may use a TIA to obtain information on specific plant licensing basis; applicable staff positions for an issue, policy, or regulatory requirements interpretation; NRR technical positions; or the safety/risk significance of plant configurations or plant operating practices. The audit objective is to determine if the agency's TIA process facilitates effective, efficient, and timely responses.

## Audit of NRC's Cyber Security Inspection Program for Reactors

NRC has required all nuclear power plant licensees to have a cyber security plan to protect their digital computer and communication systems associated with safety, security, and emergency preparedness related functions. NRC provides licensees with specific requirements and both NRC and the Nuclear Energy Institute have issued supplemental guidance documents to assist licensees in understanding and complying with the cyber security requirements. Beginning in January 2013, NRC initiated inspections of licensee compliance with cyber security requirements and finalized the inspection guidance and significance determination process for evaluating any potential violations. The audit objective is to determine the adequacy of NRC's cyber security inspection program for reactors.

## Audit of NRC's Receipt, Recordation, and Reconciliation of Revenue

The Chief Financial Officer's Act of 1990, as amended, aimed to bring more effective financial management to the Federal Government and provide decisionmakers with complete, reliable, and timely financial information. The Independent Offices Appropriation Act requires NRC to charge fees to cover the costs of services provided to the public. The Omnibus Budget Reconciliation Act of 1990, as amended, requires that NRC recover approximately 90 percent of its budget authority by collecting fees from its applicants and licensees. Numerous NRC Management Directives provide guidance regarding revenue collection, recordation, and

reconciliation of revenue. Recent OIG audits have uncovered weaknesses in the internal controls related to revenue in programs under review including instances where program managers do not track revenue. The audit objective is to determine whether NRC has established and implemented an effective system of internal control over the receipt, recordation, and reconciliation of revenue and the effectiveness of agency's management of over \$900 million in annual receipts.

## INVESTIGATIONS PROGRAM

		Budget	tigations t Authority in Millions)			
	FY 2014 Enacted		FY 2015 Request		Delta FY 2015 – FY 2014	
Summary	\$M	FTE	\$M	FTE	\$M	FTE
Program Support	\$3.963	22	\$4.004	22	\$0.041	0
Total	\$3.963	22	\$4.004	22	\$0.041	0

Numbers may not add due to rounding.

#### **HIGHLIGHTS**

OIG's responsibility for detecting and preventing fraud, waste, and abuse within NRC includes investigating possible violations of criminal statutes relating to NRC 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 IG initiatives directed at bearing a high potential for fraud, waste, and abuse.

For FY 2015, OIG requests \$4.004 million and 22 FTE to carry out its Investigations Program activities of which \$3.832 million and 21 FTE is for NRC programs and \$172,000 and 1 FTE is for DNFSB programs respectively. Reactive investigations into allegations of criminal and other wrongdoing will continue to claim priority on OIG's use of available resources. Because NRC's mission is to protect the health and safety of the public, the Investigations Program's main concentration of effort and resources will involve investigations of alleged NRC or DNFSB staff misconduct that could adversely impact matters related to health and safety. 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 will conduct approximately 60 investigations and Event Inquiries at the NRC covering a broad range of allegations concerning misconduct and mismanagement affecting various NRC programs.

In addition, OIG will conduct approximately 5 investigations at the DNFSB concerning allegations stemming from DNFSB programs.

#### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase in the Investigations Program to fund the January 2015 pay raise, withingrade and benefits costs increases in FY 2014 and FY 2015.

#### FY 2014-FY 2015 INVESTIGATIONS PROGRAM PERFORMANCE GOALS

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

## **SELECTED FY 2013 INVESTIGATIONS PROGRAM ACCOMPLISHMENTS**

In FY 2013, OIG completed 59 investigations. These investigative efforts focused on violations of law or misconduct by NRC employees and contractors and allegations of irregularities or inadequacies in NRC programs and operations.

#### **EXAMPLES OF RECENTLY COMPLETED WORK ARE AS FOLLOWS:**

## Region IV's Potential Violation of the No Fear Act

OIG conducted an investigation based on a number of allegations in an anonymous letter sent to Congress and the NRC Commission, alleging that an NRC Region IV manager retaliated against regional staff for raising safety issues involving inspection activities at the Fort Calhoun Station nuclear power plant, concerning an onsite fire, and the adequacy of flood protection measures. It was further alleged that Region IV has a chilled workplace environment that dissuades inspectors from identifying safety issues that may be challenged by regional management.

## Investigative Results

OIG found that the manager supported the issuance of a yellow finding (substantial safety significance) rather than a red finding (high safety significance) regarding conditions relating to the 2011 fire, based on specific technical concerns about the accuracy of a red characterization. Notwithstanding the manager's expressed views, a red finding was issued in this matter as a preliminary and a final finding. Additionally, OIG found that the manager raised concerns about the basis for a yellow finding concerning flood protection measures at the site. The resolution of the concerns resulted in a long delay in reporting the finding but concluded with the manager supporting the yellow finding.

OIG found that despite staff assertions, there was no evidence that the manager altered or removed safety findings from inspection reports without the concurrence of the reporting inspector.

OIG also found that performance appraisals for Region IV risk analysts under the manager's supervision were downgraded in the 2009 performance year. There was no evidence that these downgrades were related to and in retaliation for raising safety issues. In a separate issue, evidence was developed that a Region IV reactor inspector received a performance downgrade following a disagreement with the manager over a 2009 inspection finding, and that the disagreement was a factor in the downgrade.

In addition, OIG found widespread concern among Region IV employees about interaction with the manager due to his interpersonal behavior. Employees did distinguish the manager's interpersonal manner from his commitment to safety. However, OIG did find that negative perceptions of the manager's style created perceptions among some Region IV employees of a chilled workplace environment.

Further, OIG found that Region IV managers had been apprised of specific concerns from nonsupervisory employees and branch chiefs about the manager's behavior but that while some remedial measures were proposed none included formal or documented performance counseling.

## Fraud by NRC Contractor

OIG conducted an investigation into an allegation that a major U.S. university performing contract work for the NRC improperly billed the NRC, through the professor serving as Principal Investigator (PI) for the contract, for work under the contract and failed to provide adequate deliverables and a final deliverable. OIG initiated this proactive review based on reports that the PI was under Federal investigation for submitting fraudulent contract proposals, theft of Federal funds, and money laundering in connection with the PI's research activities outside of the university.

## Investigative Results

OIG learned that NRC had awarded the university a contract to research local heat transfer phenomena in a reactor cavity cooling system for the period August 2007 through February 2009, and the professor under Federal investigation for other matters was listed as the PI on the contract. The contract had five tasks, four of which required deliverables in the form of reports. The fifth task was to provide technical support to the NRC. OIG learned that NRC spent nearly \$279,000 on the contract, but that the staff felt the deliverables were not acceptable and did not meet contract requirements, and that the final deliverable was never received. OIG also found that a university associate research scientist and two other university employees did not perform work on the NRC contract as claimed by the PI and their hours were improperly billed to the NRC contract.

The DOJ accepted this contract fraud case for civil litigation and, in October 2012, a settlement agreement between DOJ and the university was executed in which the university agreed to pay single damages (\$278,674.03) plus investigative costs (\$192,395.63) for a total \$471,069.66.

# NRC Region III's Handling of a Pinhole Coolant Leak at Davis-Besse Nuclear Power Station, Oak Harbor, Ohio

OIG conducted an investigation into a congressional concern that the NRC Region III Public Affairs Officer (PAO) provided inaccurate and misleading information pertaining to a pressure boundary leak in a pipe at FirstEnergy's Nuclear Power Station, Davis-Besse, located in Oak

Harbor, Ohio. It was alleged that after FirstEnergy discovered "a pinhole coolant leak in a pipe weld while performing a walk down inspection of the plant," the PAO was quoted in a June 7, 2012 Bloomberg News article stating that the leak was below the NRC threshold for mandatory reporting. Further it was alleged that the leak at Davis-Besse was not below the NRC's threshold for mandatory reporting and Region III had publicly provided an inaccurate statement.

Additionally, the congressional concern included a disparity among statements made by NRC staff, the NRC Region III PAO, and FirstEnergy regarding cracking in Davis-Besse's shield building wall that was discovered by the licensee on October 11, 2011. The PAO and FirstEnergy publicly stated that the cracks were in an architectural or decorative element of the wall that had no structural significance; however, NRC staff later stated that the cracking in the shield building wall was in a structurally significant area of the wall.

## Investigative Results

OIG found that the Bloomberg News reporter misquoted the NRC Region III PAO in the June 7. 2012, news article concerning the need for the licensee to report to NRC the pressure boundary leak in the Davis-Besse pipe. OIG found that with the PAO's assistance, the Bloomberg News editor published another article on July 25, 2012, that corrected the June 7 article and accurately quoted the PAO in stating the plant was required to report the leak to the NRC.

With regard to the cracking of the shield building wall, OIG found that NRC's initial characterization of this incident was based on preliminary information obtained from FirstEnergy. FirstEnergy had limited data and conservatively assumed that the shield building wall's circumference was cracked; however, as new data became available, it was determined that the cracking was not all around the building. It was also initially portrayed that the cracking was in a decorative portion of the shield building called the architectural flute, and this part of the shield building was separate from the rest of the shield building. However, FirstEnergy later determined that the architectural flutes were part of the original concrete pour of the shield building wall and were therefore considered part of the structural wall. As more information became available to NRC, the agency revised its description of the cracking issue, and its later descriptions were therefore different than its earlier descriptions. OIG also found that NRC inspected the Davis-Besse shield building cracking and NRC concluded that the cracking did not affect the ability of the shield building to perform its design function.

## Concerns Regarding the NRC's "Open Door" Policy and Differing Professional Opinion **Process**

OIG conducted an investigation into an anonymous allegation that questioned NRC's Open and Collaborative Work Environment (OCWE) and Differing Professional Opinion (DPO) process. The anonymous alleger indicated that the process sounded fair, "but when the rubber meets the road, the programs fall apart." The alleger did not provide any specific examples to support the allegation. However the alleger wrote that (1) OCWE does not mean management has to listen, but just provides a mechanism for subordinates to say something, and (2) people do not raise concerns due to fear of retribution.

NRC defines OCWE as a work environment that encourages all employees and contractors to promptly raise concerns and differing views without fear of reprisal. Further, NRC describes the DPO program as a formal process that allows all employees and contractors to have their differing views on established, mission-related issues considered by the highest level managers in their organizations, i.e., office directors and regional administrators. The process also

provides managers with an independent, three-person review of the issue (one person chosen by the employee). After a decision is issued to an employee, he or she may appeal the decision to the Executive Director for Operations (EDO), or the Chairman for those offices reporting to the Commission.

## Investigative Results

OIG learned that a listing and summary of all 21 DPOs, that have been received, processed, and completed since the DPO Program was revised in May 2004, is posted on the NRC internal DPO Web site. The web site reflected the agency has closed nine cases that were submitted in 2005, six submitted in 2006, two submitted in 2008, one submitted in 2009, one submitted in 2010, and two submitted in 2011. OIG reviewed the summaries for the three most recent DPO closures (filed in 2010 and 2011) and noted that in all three cases, the review panel agreed with at least some of the issues raised in the DPOs and made recommendations intended to address these matters. In addition, the cognizant office director agreed with the panel's conclusions and recommendations.

Due to a lack of specific examples in the anonymous allegation, union representatives at NRC and the NRC DPO program manager were interviewed as to their perceptions of the program. None of the union representatives could provide specific examples of retaliation by management against a DPO submitter but they did offer that because of a perception by NRC staff that filing a DPO may lead to retaliation, many of those staff are unwilling to use the program.

The DPO Program Manager was aware of the negative perceptions of the DPO program from employees (including staff and management) who have used the process. These sources identified multiple issues that could result in negative perceptions, including fear of retaliation. The program manager, however, stated that some of the measures that make the program fair and useful are having an independent panel of NRC employees review the issues (one panel member selected by the employee), having the option of appealing the decision to the EDO, and allowing the employee to ask for the discretionary release of the DPO records. The DPO Program Manager advised that NRC Office of Enforcement, which oversees the program, is aware of employee concerns and is taking actions to address them.

# NRR Managers Provided Inaccurate Information Pertaining to Reactor Oversight Process to Commission

OIG conducted an investigation into an allegation that the Office of Nuclear Reactor Regulation (NRR) managers in the Division of Inspection and Regional Support (DIRS) provided inaccurate information to the Commission in SECY-13-0037, Reactor Oversight Process (ROP) Self-Assessment for Calendar Year (CY) 2012, dated April 5, 2013. The primary decision-making tool of the Commission is the written issue paper submitted by the Office of the Executive Director for Operations, Chief Financial Officer, or other offices reporting directly to the Commission. Policy, rulemaking, and adjudicatory matters, as well as general information, are provided to the Commission for consideration in a document style and format established specifically for a defined purpose. Such documents are referred to as "SECY Papers."

Specifically, the alleger, reported that NRR DIRS managers inaccurately reported in SECY-13-0037 that all inspection program metrics were met, including the completion of the required baseline inspection program for CY 2012. The alleger stated that Region IV Division of Reactor Projects provided an annual reporting to DIRS on March 6, 2013, indicating that the Region

completed baseline inspection requirements at twelve of the thirteen reactor licensees subject to the ROP, and two inspections were not completed at a Region IV plant in CY 2012.

# Investigative Results

The investigation disclosed that even though the Inspection Procedures were missed for two Nuclear Power Plants, they were completed in the first quarter of CY 2013, as allowed per NRC policy. OIG did not substantiate that NRC managers provided false statements in SECY-13-0037 to the Commission, in violation of any criminal or administrative statutes.

## **EXAMPLES OF ONGOING INVESTIGATIVE WORK ARE AS FOLLOWS:**

# NRC Regulatory Oversight

OIG initiated a special project to proactively monitor NRC's technical and regulatory processes, nuclear industry trends, trade press, as well as other sources to identify potential problematic areas in NRC regulatory oversight of operating reactors, nuclear materials, and high-level and low-level waste.

# NRC Network Intrusion, Computer Misuse, and Computer Forensic Support

The OIG Cyber Crime Unit conducts investigations into internal and external cyber breaches to the NRC's IT infrastructure, conducts cyber investigations involving the NRC and its employees, and works jointly with NRC staff to identify unauthorized or unknown activity on the NRC network. Investigations include computer misuse by NRC employees, targeted spear phishing attacks against NRC employees, attempted network intrusions, unauthorized release of electronic sensitive information, and forensic assistance to the NRC regarding alleged licensees' violations of regulatory requirements.

### Violations of Public Trust

The OIG initiated a project to identify violations of public trust and develop investigations focused to recognize schemes that may lead to criminal offenses including bribery, extortion, embezzlement, and illegal kickbacks. This project involves the review of a variety of information sources and deploys innovative methods to focus on restrictions on former employees engaging in post employment activities affecting the NRC and acts affecting a personal financial interest of current or former employees.

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

NRC OIG carries out its mission through its Audits and Investigations Programs. The NRC-OIG Strategic Plan, which was published in FY 2014, features three goals and guides the activities of these programs. The plan 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. NRC OIG's 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, evaluation, and investigation aligns with these three goals, program areas selected for audit and evaluation are included in its Annual Plan after being cross walked against the NRC/OIG Strategic Plan to ensure alignment with its strategic goals.

Furthermore, each OIG audit, evaluation, and investigation is also linked with one or more of the most serious management and performance challenges identified by the Inspector General as facing the agency. The work performed by OIG auditors and investigators is mutually supportive and complementary in pursuit of these objectives. Below are NRC OIG's strategic goals and strategies covering this budget cycle.

## **NRC OIG STRATEGIC GOALS**

STRATEGIC GOAL 1: STRENGTHEN NRC'S EFFORTS TO PROTECT PUBLIC HEALTH AND SAFETY AND THE ENVIRONMENT (SAFETY).

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 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. NRC is also challenged to address both domestic and international operating experience that informs regulatory activities. NRC must also 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, NRC must ensure that its regulatory activities regarding nuclear materials and nuclear fuel cycle facilities adequately protect public health and safety. Moreover, 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, NRC faces significant issues involving 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 NRC or Agreement States. However, there are currently only four operating low-level waste disposal facilities in the United States. Below are NRC OIG's strategies to support the NRC in facing these and other safety-related challenges.

- Strategy 1-1: Identify risk areas associated with 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 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 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 NRC's oversight of high-level and low-level waste, and conduct audits and investigations that lead to NRC program improvements.

STRATEGIC GOAL 2: ENHANCE NRC'S EFFORTS TO INCREASE SECURITY IN RESPONSE TO AN EVOLVING THREAT ENVIRONMENT (SECURITY).

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, 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, 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. 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, 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.

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 cyber security program will face implementation challenges common to new inspection programs, such as communicating new requirements to licensees, conducting inspections in a consistent manner, and allocating sufficient resources to sustain the inspection program beyond its initial years. Cyber security 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 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 NRC carefully test for vulnerabilities without compromising licensees' digital networks. Below are 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.

STRATEGIC GOAL 3: INCREASE THE ECONOMY, EFFICIENCY, AND EFFECTIVENESS WITH WHICH NRC MANAGES AND EXERCISES STEWARDSHIP OVER ITS RESOURCES (CORPORATE MANAGEMENT).

NRC faces significant challenges to efficiently, effectively, and economically manage its corporate resources within the parameters of a flat or declining budget. 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. 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. 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.

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. 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 NRC to identify and improve weaknesses. Below is OIG's strategy to support the agency in mitigating these challenges.

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

# FY 2015 NRC OFFICE OF THE INSPECTOR GENERAL BUDGET RESOURCES LINKED TO STRATEGIC GOALS

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

FY 2015 NRC OIG Budget Resources Linked to Strategic Goals						
OIG Strategic Goals						
Program Links to Strengthen NRC's Enhance Improve N Strategic Public Health & NRC's Security Resource Ste Goals Safety Efforts Ef						
FY 2015 Programs (\$1	1,221,000; 58 FTE)					
Audits	\$3,226,000	\$1,193,000	\$2,970,000			
(\$7,389,000; 37 FTE)	18.5 FTE	6.5 FTE	12.0 FTE			
Investigations	\$1,491,000	\$638,000	\$1,703,000			
(\$3,832,000; 21 FTE)	8.0 FTE	3.5 FTE	9.5 FTE			

# NRC OIG PROGRAM PERFORMANCE MEASURES

Actual 100% 85% 85% 85% 85% 85% 85% 85% 85% 85% Actual 100% 91% 89% 63% 5 TBD	NRC OIG Strategic Goal 1: Strengthen NRC's Efforts To Protect Public Health and Safety							
Measure 1. Percentage of OIG products/activities² undertaken to identify critical risk areas or manage challenges³ relating to the improvement of NRC's safety programs.⁴  Target 85% 85% 85% 85%  Actual 100% 100% 100% 100%  Measure 2. Percentage of OIG products/activities that have a high impact⁵ on improving NRC's safety Target 85% 85% 85% 85% 85%								
challenges³ relating to the improvement of NRC's safety programs.4  Target 85% 85% 85% 85%  Actual 100% 100% 100% 100%  Measure 2. Percentage of OIG products/activities that have a high impact⁵ on improving NRC's safety arget 85% 85% 85% 85% 85%	2015							
Target         85%         85%         85%           Actual         100%         100%         100%           Measure 2. Percentage of OIG products/activities that have a high impact⁵ on improving NRC's safety           Target         85%         85%         85%         85%	ement							
Actual100%100%100%Measure 2. Percentage of OIG products/activities that have a high impact on improving NRC's safetyTarget85%85%85%85%								
Measure 2. Percentage of OIG products/activities that have a high impact on improving NRC's safetyTarget85%85%85%85%								
Target         85%         85%         85%         85%								
	program.							
Actual 100% 91% 89% 63% <sup>6</sup> TRD	85%							
7.00.000 03/0 03/0 100	TBD							
Measure 3. Percentage of audit recommendations agreed to by agency.								
Target         92%         92%         92%         92%	92%							
<b>Actual</b> 60% <sup>7</sup> 80% <sup>8</sup> 91% <sup>9</sup> 100% TBD	TBD							
Measure 4. Percentage of final agency actions taken within 2 year on audit recommendations.								
<b>Target</b> 70% 70% 70% 70%	70%							
Actual 80% 80% 80% TBD	TBD							
Measure 5. Percentage of agency actions taken in response to investigative reports.								
<b>Target</b> 95% 95% 95% 95%	95%							
<b>Actual</b> 100% 100% 100% TBD	TBD							
Measure 6. Percentage of active cases completed in less than 18 months on average.								

<sup>&</sup>lt;sup>2</sup> OIG products are issued as OIG reports. For the Audits Program, these are audit reports and evaluations. For the Investigations Program, these are investigations, Event Inquiries, and Special Inquiries. Activities are the OIG hotline or proactive investigative reports.

<sup>3</sup> Congress left the determination and threshold of what constitutes a most serious challenge to the discretion of the Inspectors General. As a result, OIG applied the following definition: Serious management challenges are mission-critical areas or programs that have a potential for a perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals.

<sup>&</sup>lt;sup>4</sup> OIG products/activities are mostly in critical risk areas. Starting in FY 2014, this measure will no longer be tracked.

<sup>&</sup>lt;sup>5</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>&</sup>lt;sup>6</sup> Starting in FY 2010, a more rigorous standard was applied for the impact of investigations in the safety arena.

<sup>&</sup>lt;sup>7</sup> The agency required more than 90 days to review 4 recommendations on the Quality Assurance Planning for New Reactors audit prior to resolution. Subsequently, all 4 recommendations have been closed or resolved.

<sup>&</sup>lt;sup>8</sup> The agency required more than 90 days to review 3 of 5 recommendations on the Audit of NRC's Implementation of 10 CFR Part 21 on Reporting of Defects and Noncompliance. Subsequently, all 5 recommendations have been resolved.

<sup>&</sup>lt;sup>9</sup> The agency required more than 90 days to resolve 2 of 5 recommendations on the Audit of NRC's Management of Licensee Commitments prior to resolution. Subsequently, all 5 recommendations have been resolved.

## OFFICE OF THE INSPECTOR GENERAL

Target	90% <sup>10</sup>	90%	90%	90%
Actual	100%	100%	TBD	TBD
Measure 7. Percentage of closed investigation	s referred to DOJ or other re	elevant author	rities.	
Target			20% <sup>11</sup>	20%
Actual			TBD	TBD
Measure 8. Percentage of closed investigation	s resulting in indictments, c	onvictions, civ	il suits or set	tlements,
judgements, administrative actions or monetal	ry results.			
Target			60% <sup>12</sup>	60%
Actual			TBD	TBD

NRC OIG Strategic Goal 2: Enhance NRC's Efforts To Increase Security in Response to an Evolving Threat Environment						
	2010	2011	2012	2013	2014	2015
Nana						
	Percentage of OIG prod			riticai risk are	as or manage	ement
challenges	relating to the improvem	ent of NRC's secu	rity programs.			
Target	90%	90%	90%	90%		
Actual	100%	100%	100%	100%		
Measure 2.	Percentage of OIG produ	ucts/activities tha	t have a high impact	on improving	NRC's securit	ty program.
Target	75%	75%	75%	75%	85% <sup>14</sup>	85%
Actual	100%	100%	100%	100%	TBD	TBD
Measure 3.	Percentage of audit reco	ommendations ag	reed to by the agenc	у.		
Target	92%	92%	92%	92%	92%	92%
Actual	97%	100%	96%	100%	TBD	TBD
Measure 4.	Percentage of final agen	cy actions taken	within 2 year on audi	t recommend	ations.	
Target	70%	70%	70%	70%	70%	70%
Actual	80%	100%	88%	93%	TBD	TBD
Measure 5.	Percentage of agency ac	tions taken in res	ponse to investigativ	e reports.		
Target	90%	90%	90%	90%	90%	90%
Actual	100%	100%	100%	100%	TBD	TBD
Measure 6. Percentage of active cases completed in less than 18 months on average.						
Target			90% <sup>15</sup>	90%	90%	90%
Actual			100%	33% <sup>16</sup>	TBD	TBD
Measure 7.	Measure 7. Percentage of closed investigations referred to DOJ or other relevant authorities.					

<sup>&</sup>lt;sup>10</sup> Starting in FY 2012, OIG will measure the percentage of active cases completed in less than 18 months on average.

<sup>&</sup>lt;sup>11</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations referred to DOJ or relevant administrative authority.

<sup>&</sup>lt;sup>12</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgement, administrative action, or monetary result.

<sup>&</sup>lt;sup>13</sup> OIG products/activities are mostly in critical risk areas. Starting in FY 2014, this measure will no longer be tracked.

<sup>&</sup>lt;sup>14</sup> Starting in FY 2014, OIG will measure the percentage of OIG products/activities that have a high impact on improving NRC's security program at 85 percent.

<sup>&</sup>lt;sup>15</sup> Starting in FY 2012, OIG will measure the percentage of active cases completed in less than 18 months on average.

<sup>&</sup>lt;sup>16</sup> In the security arena, the complexity of the investigative cases resulted in several cases exceeding 18 months on average.

Target	20% <sup>17</sup>	20%
Actual	TBD	TBD
Measure 8. Percentage of closed investigations resulting in indictments, conviction	ons, civil suits or sett	lements,
judgements, administrative actions or monetary results.		
Target	60% <sup>18</sup>	60%
Actual	TBD	TBD

NRC O	IG Strategic Goal 3:					Which
	NRC Manag	ges and Exercises	Stewardship ov	er Its Resour	ces	
	2010	2011	2012	2013	2014	2015
	Percentage of OIG pro				as or manage	ement
challenges re	elating to the improve	ment of NRC's resou	rces stewardship.19	9		
Target	80%	80%	80%	80%		
Actual	100%	100%	100%	100%		
Measure 2.	Percentage of OIG con	npleted products/ac	tivities that have a	high impact on	improving C	orporate
Managemen	it Program.					
Target	85%	85%	85%	85%	85%	85%
Actual	70% <sup>20</sup>	65% <sup>21</sup>	85%	83% <sup>22</sup>	TBD	TBD
Measure 3.	Percentage of audit re	commendations agr	eed to by the agen	cy.		
Target	90%	92%	92%	92%	92%	92%
Actual	100%	100%	100%	88% <sup>23</sup>	TBD	TBD
Measure 4.	Percentage of final ag	ency actions taken w	vithin 2 year on aud	lit recommend	ations.	
Target	70%	70%	70%	70%	70%	70%
Actual	93%	100%	86%	73%	TBD	TBD
Measure 5.	Percentage of agency	actions taken in resp	onse to investigati	ve reports.		
Target	90%	90%	90%	90%	90%	90%
Actual	100%	100%	100%	100%	TBD	TBD
Measure 6. Percentage of active cases completed in less than 18 months on average.						
Target			90%24	90%	90%	90%
Actual			96%	95%	TBD	TBD

<sup>&</sup>lt;sup>17</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations referred to the Department of Justice, State or local law enforcement officials, or relevant administrative authority.

<sup>&</sup>lt;sup>18</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgement, administrative action, or monetary result.

<sup>&</sup>lt;sup>19</sup> OIG products/activities are mostly in critical risk areas. Starting in FY 2014, this measure will no longer be tracked.

<sup>&</sup>lt;sup>20</sup> For FY 2010, a more rigorous standard was applied for the impact of investigations in the corporate management arena.

<sup>&</sup>lt;sup>21</sup> For FY 2010, a more rigorous standard was applied for the impact of investigations in the corporate management arena.

<sup>&</sup>lt;sup>22</sup> For FY 2010, a more rigorous standard was applied for the impact of investigations in the corporate management arena.

<sup>&</sup>lt;sup>23</sup> The agency needed more than 90 days to review the recommendations on the Audit of NRC's Contract Administration of the Enterprise Project Management (EPM). The agency agreed to all recommendations.

<sup>&</sup>lt;sup>24</sup> Starting in FY 2012, OIG will measure the percentage of active cases completed in less than 18 months on average.

Measure 7. Percentage of closed investigations referred to DOJ of	or other relevant authorities.	
Target	20% <sup>25</sup>	20%
Actual	TBD	TBD
Measure 8. Percentage of closed investigations resulting in indic	tments, convictions, civil suits or sett	lements,
judgements, administrative actions or monetary results.		
Target	60% <sup>26</sup>	60%
Actual	TBD	TBD

# VERIFICATION AND VALIDATION OF MEASURED VALUES AND PERFORMANCE

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 2012 by the U.S. National Archives and Records Administration OIG found that the Audits Program's system of quality control provided reasonable assurance that audits were conducted in accordance with applicable professional standards.

In addition, an independent investigative peer review was recently conducted by the Corporation for National and Community Service OIG in FY 2013 of the OIG 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.

# **INSPECTOR GENERAL REFORM ACT CERTIFICATION FOR FY 2015**

In accordance with the Inspector General Reform Act (Public Law 110-409), the OIG budget request was submitted to the NRC Chairman for FY 2015 and was subsequently approved.

Further, the Inspector General certifies that OIG training request satisfies the training requirements for the Inspector General's office. 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.

<sup>&</sup>lt;sup>25</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations referred to the Department of Justice, State or local law enforcement officials, or relevant administrative authority.

<sup>&</sup>lt;sup>26</sup> Starting in FY 2014, OIG will measure the percentage of closed investigations that resulted in an indictment, conviction, civil suit or settlement, judgement, administrative action, or monetary result.

# **OIG MANAGEMENT AND OPERATIONAL SUPPORT**

OIG's Management and Operational Support staff consists of senior managers, the general counsel, and an administrative support staff. OIG's senior managers provide the continued vision, strategic direction, and guidance regarding the conduct and supervision of audits and investigations. Senior management will also ensure accountability regarding OIG's established goals and strategies and achievement of intended results.

In furtherance of OIG's mission to promote economy and efficiency, and to prevent fraud, waste, and abuse in agency programs and operations, OIG's general counsel, in coordination with cognizant OIG staff, will conduct analyses of existing and proposed legislation, regulations, directives, and policy issues. These objective analyses will result in timely written commentaries to the agency that prospectively identify and prevent potential problems.

The administrative support staff will assist OIG programs by providing independent personnel services; information technology and information management support; financial management, policy, and strategic planning support; training coordination; and the publication of OIG's Semiannual Report to Congress in accordance with the requirements of the Inspector General Act.

To carry out the functions of this program in FY 2015, OIG estimates that its costs will be \$1,431,000, which includes salaries and benefits for 8 FTE. The table below provide a breakdown of OIG Management and Operational Support for FY 2014 and FY 2015.

Comparative Costs of OIG Management and Opreational Support					
	FY 2014	FY 2015			
Summary	Enacted	Request <sup>27</sup>			
<b>Budget Authority by Function (\$P</b>	()				
Salaries and Benefits	1,360	1,376			
Program Support	62	55			
Total Budget Authority	\$1,422	\$1,431			
FTE	8	8			

Numbers may not add due to rounding.

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Congress created the Defense Nuclear Facilities Safety Board (DNFSB) as an independent agency within the Executive Branch to identify the nature and consequences of potential threats to public health and safety at the Department of Energy's (DOE) defense nuclear facilities, to elevate such issues to the highest levels of authority, and to inform the public. Since DOE is a self-regulating entity, DNFSB constitutes the only independent technical oversight of operations

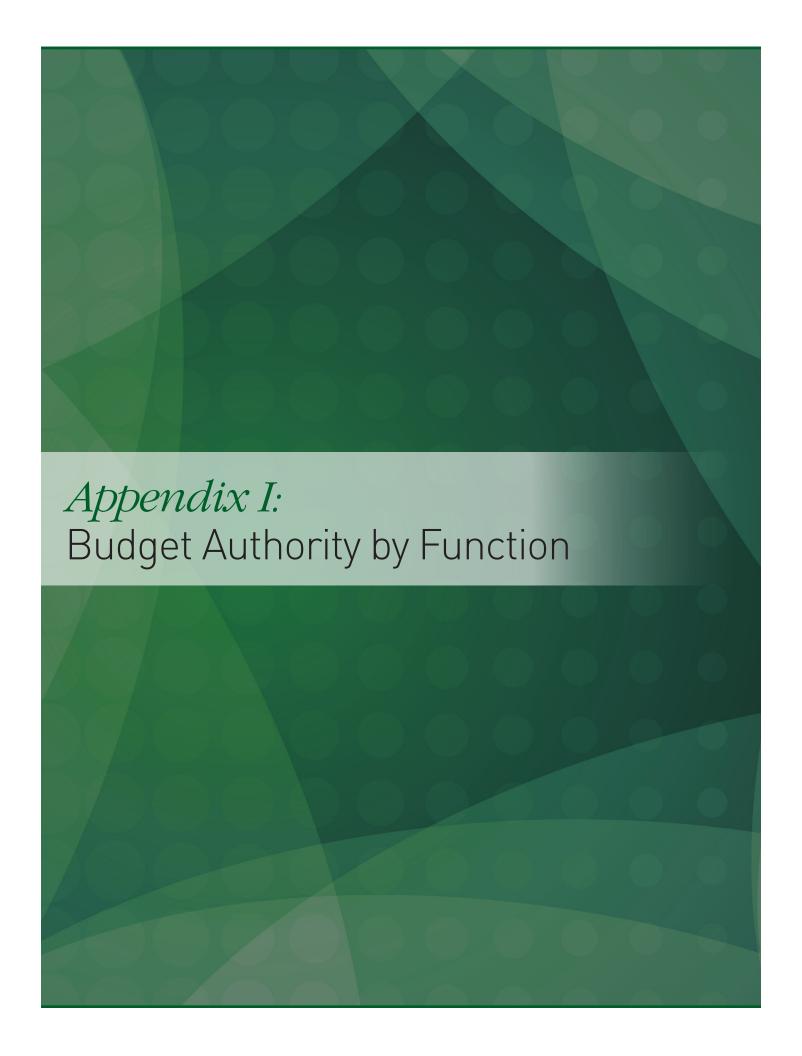
<sup>&</sup>lt;sup>27</sup>The OIG Management and Operational Support staff consists of senior managers, a general counsel, and administrative support personnel. To carry out the function of this program for FY 2015, OIG estimates its costs to be \$1.431 million, which includes salaries and benefits for eight FTE. The associated FTE and salaries and benefits estimate and program support estimates were allocated in proportion to each program's FTE percentage.

at the Nation's defense nuclear facilities. The DNFSB is composed of experts in the field of nuclear safety with demonstrated competence and knowledge relevant to its independent investigative and oversight functions.

The Consolidated Appropriations Act, 2014 provided that notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized in 2014 and subsequent years to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the Inspector General Act of 1978 (5 U.S.C. App.) with respect to the Nuclear Regulatory Commission.

For FY 2015, OIG is requesting \$850,000 in funding to support the Inspector General services for the DNFSB which includes \$678,000 and 4 FTE for Audits services and \$172,000 and 1 FTE for Investigations services. The tables below provide a breakdown of the FY 2015 budget estimates for the DNFSB Audits and Investigations program.

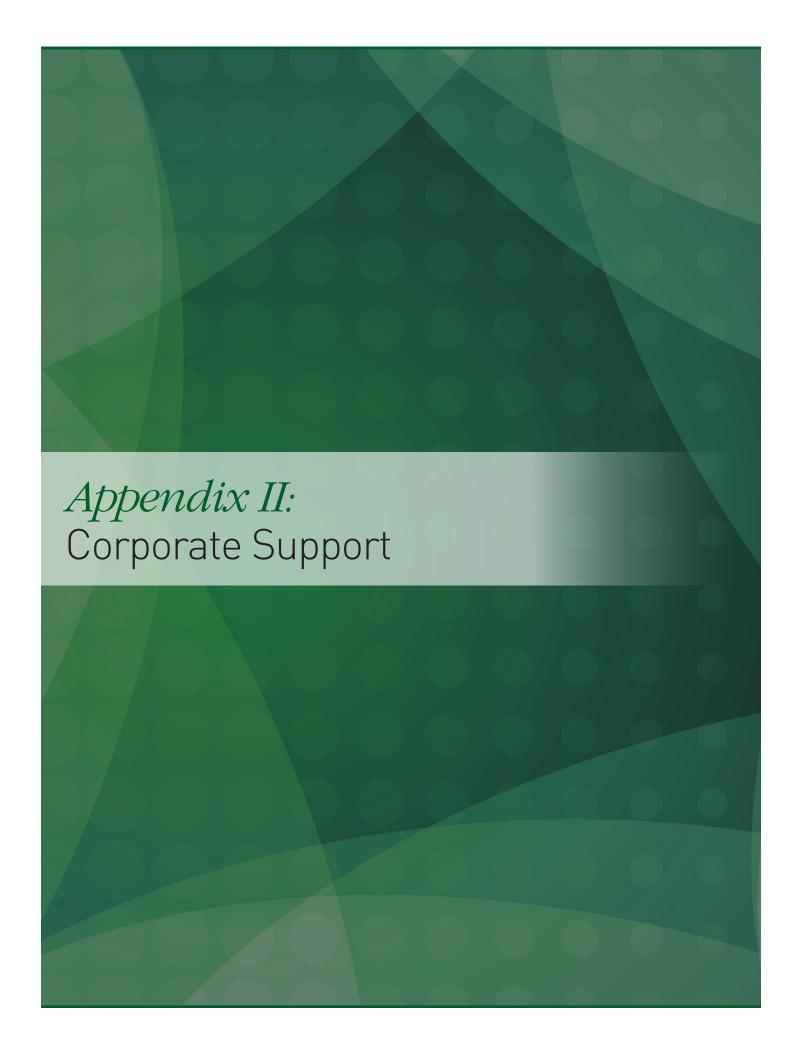
Allocation of FY 2015 Budget Request for DNFSB Program						
<b>Defense Nuclear Facilities</b>	FY 2015	FY 2015	FY 2015	FY 2015		
Safety Board Allocation by Program (\$K)	FTE	Salaries and Benefits	Program Support	Total Request		
Audits	4	525	153	678		
Investigations	1	160	12	172		
Total	5	\$685	\$165	850		



# **BUDGET AUTHORITY BY FUNCTION**

The U.S. Nuclear Regulatory Commission's (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 equivalent (FTE), pay rates, pay raise assumptions, bonuses, awards and effective pay period for pay raise. Benefits costs include the 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 nuclear reactor and materials inspection trips.

Budget Authority by Function (Dollars in Millions)					
		FY 2	2015		
NRC Appropriations	FY 2014 Enacted	Request	Changes from FY 2014		
Salaries and Expenses (S&E)					
Salaries and Benefits	600.3	622.5	22.2		
Contract Support	419.0	400.7	(18.3)		
Travel	24.6	24.2	(0.4)		
Total (S&E)	1,043.9	1,047.4	3.5		
Office of the Inspector General (OIG)					
Salaries and Benefits	9.9	10.0	0.1		
Contract Support	1.8	1.8	0.0		
Travel	0.3	0.3	0.0		
Total (OIG)	12.0	12.1	0.1		
Total NRC Appropriation					
Salaries and Benefits	610.2	632.4	22.2		
Contract Support	420.8	402.5	(18.3)		
Travel	24.9	24.5	(0.4)		
Total (NRC)	1,055.9	1,059.5	3.6		



# **CORPORATE SUPPORT**

The Fiscal Year (FY) 2015 Performance Budget identifies the infrastructure and support costs for the U.S. Nuclear Regulatory Commission (NRC) and distributes them to programs as a portion of the total program cost. The allocation methodology is consistent with the methodology used for preparing the agency's financial statements. The business line tables present the associated infrastructure and support funding included in the programmatic funding to provide the full cost of each business line.

	Corp		ort by Busir s in Millions)			
		FY 2014 Enacted		2015 quest	Delta FY 2015 – FY 2014	
<b>Major Programs</b>	\$M	FTE	\$M	FTE	\$M	FTE
Operating Reactors	218.5	458.0	197.7	435.1	(20.8)	(22.9)
New Reactors	78.9	165.4	82.6	181.9	3.7	16.5
Nuclear Reactor Safety	\$297.4	623.4	\$280.3	617.0	(\$17.1)	(6.4)
Fuel Facilities	21.1	44.2	22.6	49.7	1.5	5.5
Nuclear Materials Users	31.9	66.9	28.5	62.8	(3.4)	(4.1)
Spent Fuel Storage and Transportation	18.1	37.8	16.4	36.0	(1.7)	(1.8)
Decommissioning and Low-Level Waste	15.4	32.4	14.3	31.3	(1.2)	(1.1)
Nuclear Materials and Waste Safety	\$86.6	181.4	\$81.7	179.9	(\$4.9)	(1.5)
Corporate Support	\$384.0	804.8	\$362.0	796.8	(\$22.0)	(8.0)

Corporate Sup	port Bud		ority and Full-T ars in Millions)	ime Equivale	ents by Produc	t Line
	FY 2014 Enacted		FY 20 Reque	_	Delta FY 2015 – FY 2014	
<b>Product Line</b>	\$M	FTE	\$M	FTE	\$M	FTE
Acquisitions	21.6	91.1	18.1	85.9	(3.5)	(5.2)
Administrative Services	122.6	109.5	121.5	114.7	(1.1)	5.2
Financial Mgmt.	32.9	110.0	27.3	107.7	(5.6)	(2.3)
Human Resource Mgmt.	25.8	75.5	23.5	70.8	(2.4)	(4.6)
Information Mgmt.	21.8	53.6	25.0	53.6	3.2	(0.1)
Information Technology	94.1	158.2	96.8	155.7	2.7	(2.5)
Outreach	20.4	18.2	5.6	18.2	(14.8)	(0.0)
Policy Support	37.1	179.1	37.4	178.0	0.3	(1.1)
Training	5.9	9.6	5.4	12.3	(0.4)	2.6
Travel	1.8	0.0	1.5	0.0	(0.3)	0.0
Total	\$384.0	804.8	\$362.0	796.8	(\$22.0)	(8.0)

Numbers may not add due to rounding.

The agency's infrastructure and support involve centrally managed activities that are necessary for the staff and agency programs to achieve goals more efficiently and effectively. These activities include acquisitions, administrative services, financial management, human resource management, information management (IM), information technology (IT), outreach, and policy support. The workload, resource changes from the FY 2014 enacted budget, and significant accomplishments for the product lines listed above are described in the following pages. The outputs of the product lines under Corporate Support contribute to the scoring of the NRC Safety and Security Performance Indicators and their contribution to the achievement of its Strategic Outcomes. The above table provides a cost breakdown of infrastructure and support by program.

The agency's significant accomplishments were reported in the NRC's FY 2013 Performance and Accountability Report.

# **ACQUISITIONS**

The Acquisitions budget provides resources for the implementation of an enterprise-wide acquisition system and support for procurement and strategic sourcing activities. This includes support for all aspects of contract operations and oversight necessary to ensure that the agency obtains goods and services in an effective manner that is consistent with mission needs, sound business practices, agency guidance, and federal regulations. In addition, this includes support for implementation of an agencywide streamlined process to: achieve alignment between budget formulation, program planning, and execution; eliminate duplication of effort; increase use of enterprise contracts; and improve the agency's ability to effectively respond to emergent requirements.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase in Procurement Operations as a result of the TABS centralization. Resources decrease in Strategic Sourcing due to expected reduced role of contract support in agency spend analysis activities, and decrease in Mission IT after completion of STAQS deployment during FY 2014. Resources also decrease to reflect expected completion of decommissioning activities for the current Automated Acquisitions Management System.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC convened the 4th and final Portfolio Council (PC) for implementation of its strategic acquisition program. The Corporate Support PC was established in February 2013 and is reviewing consulting, subscriptions, and administrative services to identify potential strategic sourcing strategies. The Technical Assistance and Research PC developed the agency's first strategic sourcing strategy for technical services, currently in the acquisition process with implementation in early 2014. The Information Technology PC is initiating an assessment of the agency's printing management to support the development of recommendations for an agencywide strategic sourcing strategy. The Education and Training PC implemented one training strategy, and the Corporate Support PC review of meetings and conferences resulted in the execution of blanket purchase agreements with several local hotels for standard costs. terms, and conditions to support meeting space and support services.

Throughout the year, the agency supported a continued exemplary level of small business contract performance, with the agency exceeding all five of its small business goals through: planning four small business set-asides out of nine acquisition compliance reviews (set-asides totaling over \$70 million); conducting internal training on the benefits of small business contracting, including how to identify qualified small businesses; and exploring the small-business marketplace through business counseling and matchmaking activities at external conferences and events.

### ADMINISTRATIVE SERVICES

The Administrative Services budget provides resources for rent and utilities for Headquarters (HQ), regional, and Technical Training Center space; corporate rulemaking; print and publications services; IT systems that support security, space planning, and administrative services for the agency; facilities management, including operation and maintenance services, systems and office furniture, property management, labor services, custodial services, and building alterations; support services, including fleet management, transit subsidies, supplies, and multimedia services; physical and personnel security services such as security equipment, investigations, adjudications, drug testing, and guard services; and support and guard services in the regions.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources decrease to reflect the plan that the Agency will occupy six floors, while leasing out eight floors, of the Three White Flint North building at the NRC Headquarters campus. Resources increase to support the One White Flint North building renovation project to reconfigure and renovate four floors. In addition, the increase supports the Two White Flint North building/Three White Flint North building reconfiguration project to meet GSA standards

that reduce the usable square feet per employee ratio on two floors. Resources also increase to support the cost of onsite guard services from the Department of Homeland Security because of the newly mandated interagency agreement with Federal Protective Services for White Flint Complex security. Increase also includes additional resources for retaining Church Street while reconfiguring Two White Flint/Three White Flint.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

In support of Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," the NRC installed a variable-frequency drive on a Two White Flint North (TWFN) chiller and installed additional LED lighting in select areas of One White Flint North (OWFN) and TWFN. These projects resulted in a reduction of electrical consumption for the NRC. In FY 2013, the NRC reduced its electrical consumption by 8.3 percent over the previous fiscal year, which saved the NRC over \$200,000 in electricity costs. In addition, for the fourth consecutive year, Montgomery County, MD, recognized the NRC for outstanding achievement in recycling.

The NRC completed the build-out and acceptance of the Three White Flint North (3WFN) building on schedule and under budget and relocated the Professional Development Center, Data Center, and Headquarters Operations Center, with 800 staff, into 3WFN. The agency completed the decommissioning of three interim buildings and renovated OWFN elevators, lobbies, and restrooms. Also in FY 2013, the agency submitted the 3-year Real Property Space Plan to GSA and OMB in accordance with the "Freeze the Footprint" guidance and requirements.

# FINANCIAL MANAGEMENT

The FY 2015 Financial Management budget supports the modernization and operation of the agency's financial systems, budget development and execution, agency financial services, accounting and reporting activities, administration of a robust internal control program, and strategic and performance planning to achieve the effective and efficient use of the agency's financial resources.

Resources for financial systems modernization will be used to provide an upgrade to the core financial system, Financial Accounting and Integrated Management Information System (FAIMIS), as well as an upgrade to the Human Resources Management System (HRMS).

## CHANGES FROM FY 2014 ENACTED BUDGET

Resources decrease because required funding for upgrades to the FAIMIS Core Accounting System were fully budgeted in FY 2014.

# SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC completed a business process improvement to streamline the agency's budget formulation process by initiating baseline budgeting practices, including budget execution in the formulation process and incrementally centralizing budget formulation functions in the Office of the Chief Financial Officer (OCFO). Baseline budgeting is based on the premise that programs and activities that are currently funded will continue into the next budget period without any significant increase or decrease in the level of service. These levels are adjusted according to

execution and projections for changing work. The NRC began the transition to centralization of budget formulation functions within OCFO by having that office perform the budget functions previously performed by the respective business line lead offices.

On July 1, 2013, the NRC issued a final rule in the Federal Register amending the licensing, inspection, and annual fees charged to its applicants and licensees. The amendments are necessary to implement the Omnibus Budget Reconciliation Act of 1990 (OBRA-90), as amended, which requires the NRC to recover through fees approximately 90 percent of its budget authority in FY 2013, not including amounts appropriated for Waste Incidental to Reprocessing (WIR) and amounts appropriated for generic homeland security activities. Based on the Consolidated and Further Continuing Appropriations Act of 2013, the NRC's required fee recovery amount for the FY 2013 budget is \$864.0 million. After accounting for billing adjustments, the total amount to be billed as fees to licensees is \$859.6 million. The NRC Fee Recovery Schedules for FY 2013 is located at http://www.gpo.gov/fdsys/pkg/FR-2013-07-01/pdf/2013-15529.pdf.

The agency successfully transitioned financial operations services for invoice payment, accounts receivable, and travel processing from the National Business Center of the U.S. Department of the Interior to within the NRC.

## **GENERIC HOMELAND SECURITY**

There are no resources in the Generic Homeland Security budget in because the requirements to implement Homeland Security Presidential Directive 12 were fully implemented in FY 2013

## **HUMAN RESOURCE MANAGEMENT**

In FY 2015, resources provide for recruitment and staffing activities; work-life services, including employee counseling; employee and labor relations; and agencywide policy development and strategic workforce planning. In addition, resources provide for Permanent Change of Station activities, including resident inspector moves, as well as oversight of the Open Collaborative Work Environment (differing professional opinions, non-concurrence process, and open door policy), and "Internal" Safety Culture Program activities.

## **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources decrease due to reductions in recruitment and staffing, employee/labor relations, and work life services activities.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

Since FY 2012, the NRC has used a variety of methods and measures to regulate hiring and to implement and refine the organizational structure to meet changing mission needs such as the development of short- and long-term staffing plans and limited/targeted external hiring for critical skills. These methods refined the hiring process and helped control full-time equivalent use. As a result, the agency has made significant progress in aligning staff with the salary and benefits budget, thus allowing us to increase external hiring, as needed, beginning in FY 2013 and continuing into FY 2014.

The NRC implemented a strategy to transform workforce centers by reducing inefficiencies and overhead and by centralizing and streamlining processes while continuing to provide effective and more efficient services. Steps include the successful transition of agency employees from various program offices to corporate offices in an effort to centralize selected office support functions; the launch of a Business Process Improvement to review and analyze the agency's "current state" onboarding process to create a more centralized and effective "future state" process; and implementation of applicable human capital management strategies. Additionally, the agency implemented an automated, comprehensive solution to enhance our current workforce planning process. This allows the agency to staff positions in a more timely and cost-effective manner, streamline the entrance on duty process, and enhance tracking and reporting of the hiring process.

The NRC is approaching work in a context of budgeted priorities and is strategically focusing on not only replacing employees who depart, but also fine-tuning available skill sets to meet future mission needs while still emphasizing Government-wide programs such as hiring of the disabled and employing veterans through the coordination of, and attendance at, events focused on veterans and supporting the agency's Comprehensive Diversity Management Plan through the newly created Diversity Management and Inclusion Council. As a result of the increased emphasis on the hiring of veterans and disabled veterans, the NRC exceeded its FY 2013 established hiring goals. For FY 2013, 27.68 percent of all NRC hires were veterans and 9.6 percent of total hires were disabled veterans.

The NRC recognizes the need to capture and maintain the knowledge and skills of senior staff and management as they become eligible for retirement. The NRC has made revitalization of the agency's Knowledge Management (KM) program a priority to support effective approaches to knowledge collection, transfer, and use for information relevant to the NRC's mission. This program includes strategic hiring and training to fill knowledge gaps, establishing an IT infrastructure to facilitate knowledge transfer, and fostering a culture of knowledge transfer and retention. In addition to the KM program, the NRC is ensuring that critical skills and competencies are available in the future by adapting our training and development programs to meet the changing needs of the agency staff and changes in technology. The NRC ensures effectiveness of training with the added benefits of a reduction in costs and schedule convenience for the learner by continuing to implement online and distance learning.

The NRC continues to be one of the best places to work in the Federal Government according to Federal Human Capital Survey Results. The NRC excels in areas such as matching employees' skills to the agency's mission, strategic management, effective leadership, performance-based advancements, training and development, support for diversity, and work-life balance. The NRC realizes that the success of the agency depends on the talent and commitment of our employees, and we strive to create a workplace rich in work-life balance where employees are engaged in meaningful and challenging work.

## INFORMATION MANAGEMENT

The Information Management (IM) program develops and implements the framework and technologies for managing and protecting information in a way that ensures it is available to support a stable and predictable regulatory environment. In FY 2015, IM resources will provide document and records management services such as the operation of the Public Document Room, electronic document intake, profiling, indexing, and retrieval; modernization of internal

and external websites; and compliance with the Freedom of Information Act (FOIA) and Privacy Act.

Information security activities support secure communications and information security; policy and procedures; maintenance/services and supplies; classification management; and management of Sensitive Unclassified Non-Safeguards Information. FY 2015 resources will fund implementation of a new Governmentwide policy on Controlled Unclassified Information (CUI).

Central management of the agency's subscriptions to technical journals and databases, online codes and standards, and electronic newsletters and journals supports the scientific and research work of the agency staff, as well as the regulatory mission of the agency. Electronic newsletters are an integral component of communication within the energy industry, and these subscriptions ensure that the Commission, management, and staff maintain currency with industry developments, political decisions, and stakeholder concerns. Subscriptions to industry codes and standards are necessary to support the staff's determinations of compliance with Commission regulations. The codes and standards are cited in the regulations, and staff members require access to cited codes and standards to conduct the necessary inspections and reviews to determine compliance with NRC requirements.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase to support funding for Digitation of Permanent Records and Management of Permanent and Temporary Records to comply with OMB M-12-18, Managing Government Records Directive.

#### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The agency continues to make progress in modernizing the information and records management process to make information capture and categorization more transparent, accurate, and complete. A Vital Business Information plan was developed in accordance with the August 24, 2012 White House Directive for Managing Government Records to ensure that the NRC can meet information needs and support continuity of operations during a disaster that might disrupt normal agency functions.

The agency continues to improve tools and make enhancements to make it easier to find and process information. The Agencywide Documents Access and Management System (ADAMS) FileNet P8 platform was upgraded to its newest version 5.1 to provide enhanced capabilities necessary to build an enterprise business process automation platform (BPAS). This platform was used to deliver three systems: 1) Agency Lessons Learned Tracking System (ALLTS), 2) SECY System of Tracking and Reporting (SECY STAR) and 3) Public Meeting Notice System (PMNS). The upgrade also replaced the core search engine with a new appliance (Content Search Services or CSS) that provides faster and better search results which addresses the concerns cited in the FY12 IT/IM Survey. The new CSS also adds several other user-requested features that will help finalize the transition from ADAMS Original to ADAMS P8.

# INFORMATION TECHNOLOGY

In FY 2015, resources will fund the NRC's Information Technology (IT) infrastructure, end-user support services for IT applications, database and application support for agency systems, configuration management, IT project management support, and the cyber security program. Funded programs include Capital Planning and Investment Control (CPIC) processes, IT strategic management and enterprise architecture planning, agencywide IT procurement management, and compliance with the Federal Information Security Management Act (FISMA).

The budget will fund the following ongoing activities:

- IT infrastructure end-user support services, telecommunications services, network and production operations, and central management of all desktop, laptop, and network resources and services at HQ, regional offices, and resident inspector sites. Resources support the Network Operations Center, Customer Support Center, the Consolidated Testing Facility, and seat management and desktop support for over 5,800 desktop workstations and the supporting infrastructure. Also included are the managed public key infrastructure and production operations support, including systems administration and data center operations. Resources support consolidation efforts for transition of the high-performance computing suite from independent units to shared services and consolidation of headquarters and regional voice and data communications infrastructure.
- Identification of the best technologies to fill gaps associated with strategic goals such as
  "Working from Anywhere" and "Working with Anyone," and identifying, testing, and
  piloting new technology needed to support specific agency business needs. Recent
  examples include technologies to support the NRC's Open Government flagship
  initiative such as enhancing stakeholder engagement using innovative and cost-effective
  collaboration technologies, defining common strategies to support mobility and universal
  access, consolidating systems into enterprise solutions, and increasing the number of
  devices which can access agency systems through a Bring Your Own Device (BYOD)
  program.
- The NRC's Legacy System modernization/transformation program. Resources will be used to support an effective CPIC program, for enterprise-wide configuration management, and for maintenance and operational support of approximately 120 application systems. In addition, resources will support project management, business analysis, and applications development for office-specific and enterprise-wide applications. Specific examples include transitioning the Secure Local Area Network and Electronic Safe (SLES) from a standalone records management system to consolidation within the Agencywide Documents ADAMS and the consolidation of workload management programs into a universal agencywide application.
- Compliance with FISMA, IT security policy, standards, training, cyber situational awareness and response, and security authorization of all NRC IT systems. Resources support the use of IT security tools and expertise to provide a cyber-program for the protection of NRC cyber assets. Efforts support infrastructure operations, including system authorization activities, system scanning, development of policies and standards, and development and delivery of computer security education and awareness. Also employed are automated forensic software and hardware products used in responding to security incidents. The cyber security experts also review new technologies and work with system owners to ensure that those technologies are implemented in a way that meets federally mandated and NRC-defined security requirements.

- Cyber Situational Awareness Program for penetration testing, vulnerability and threat assessments, real-time monitoring, visibility and reporting, and computer security incident response, along with providing an analysis of the security impact that new technologies will have on the NRC infrastructure and enabling continuous cyber security reporting.
- Reduction of the NRC's data center footprint. Efforts include leveraging a combination of strategies to lower energy consumption and operations costs through increased use of cloud computing alternatives; managing the NRC's application system modernization initiatives; strengthening server and desktop virtualization; and setting into operation other green IT technologies across the enterprise. As a part of the NRC headquarters building, the NRC will build an energy-efficient modern data center that uses green technologies in space, design, power, heating, ventilation, and cooling to support energy-efficient 24/7 data center operations.
- Consolidating data center services, which is a major step to achieving cloud computing initiatives at the NRC.
- Enterprise-wide e-mail encryption will ensure compliance with the executive order mandating that all Government agencies encrypt all outgoing e-mail.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Resources increase to support consolidation of data centers development and implementation of a unified communication plan, insider threat and continuous monitoring.

## SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The NRC has continued to improve its planning and implementation of a, cost-effective internal cyber security program. The agency has focused its efforts on evolving threats to electronic information in accordance with applicable laws and directives by: (1) prioritizing security challenges and developing responses; (2) educating users and cyber security professionals; (3) striving to maintain a high level of awareness; (4) addressing approaches to evaluate and report on the agency's security and risk posture; and (5) implementing a cyber-risk dashboard.

An updated version of Management Directive (MD) and Handbook 12.5, "NRC Cyber Security Program," was issued to help ensure that NRC information and information technology systems are protected from unauthorized access, use, disclosure, disruption, modification, and destruction. The update incorporated current Federal direction, addressed current threats, and updated NRC organizational changes. This revision follows the internationally accepted information security policy framework issued by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) Joint Technical Committee as ISO/IEC Standard 27002:2005(E), "Code of Practice for Information Security Management." The directive and handbook provide requirements for securing information technology systems and devices. Effective cyber security helps ensure that the agency identifies and addresses ongoing threats. The NRC completed installation and operation of sensors to detect advanced persistent threats (APT) in infrastructure and development network environments. The APT appliance positions the agency to detect, prevent, and respond to attempts at the unauthorized exfiltration (pulling or stealing) of NRC data outside the agency. The agency also completed coordination with the U.S. Department of Homeland Security (DHS) on the DHS Einstein III and the Continuous Diagnostics and Monitoring memoranda of

agreement. This effort allows the NRC to participate in the continuous diagnostic and monitoring acquisition pilot led by DHS. In addition, it also helps ensure that the NRC is involved in the next generation of trusted Internet connection capabilities.

The agency conducted "phishing" exercises to test susceptibility to e-mail-based security attack, with overall user awareness shown to be increasing as reflected by user behavior changes. The NRC also conducted role-based security training classes and incorporated security training in the staff's learning plans. Role-based training for those with significant information security responsibilities is required by FISMA.

The agency deployed several IT/IM modernization and improvement initiatives, including the Business Process Automation Stack (BPAS) to be used to automate business processes within the agency. Using BPAS, the agency developed an Office of the Secretary (SECY) System of Tracking and Reporting (SECY STAR) to modernize the automation of commission voting and track direction to the NRC staff issued by the Commission. Additionally, the agency continued to expand the Bring Your Own Device (BYOD) initiative and enabled secure and significantly broader mobile access to e-mail and calendaring functions to agency staff. Staff members are able to use their personal devices to access this information. This approach reduces the per-user cost to the agency for delivering access to this information.

## **OUTREACH**

In FY 2015, resources provide for outreach activities, which include 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.

Resources also support hosting of the annual Regulatory Information Conference (RIC) with the nuclear industry, members of the public, and the international community to discuss safety and regulatory issues of mutual interest. The primary objective of the RIC is to provide a communication forum regarding current and future safety initiatives and regulatory issues.

## **CHANGES FROM FY 2014 ENACTED BUDGET**

In FY 2015, resources decrease because of the elimination of funding for the Integrated University Program.

### SIGNIFICANT ACCOMPLISHMENTS IN FY 2013

The agency successfully managed equal employment opportunity (EEO) complaints and achieved 95 percent timeliness. To date, it has addressed 80 contacts, 23 informal complaints, 11 formal complaints, mediations, and 6 settlement agreements and currently has 2 cases pending hearing before the Equal Employment Opportunity Commission.

The NRC coordinated several activities promoting Affirmative Employment and Diversity Management, including: (1) the annual EEO Briefing to the Commission; (2) provision of assistance to all Advisory Committees on special emphasis programs; (3) hosting of monthly Lunch and Learn events on various topics; and (4) provision of training sessions, including a

two-day joint EEO Counselor and Advisory Committee training for NRC's collateral duty EEO counselors and Advisory Committee members. These sessions were conducted at headquarters (and at the regions through videoconferencing). The agency also assisted two Department of Justice Limited English Proficiency subcommittees by providing technical assistance regarding the NRC's best practices in outreach and compliance coordination program activities. The Domestic Translation Services contract was incorporated in the NRC's enterprise-wide contracts catalog.

In the area of Minority-Serving Institutions (MSIs), the NRC collaborated with White House and Federal officials to affect changes and outcomes to support and assist these institutions in their efforts related to the President's higher education initiatives. The NRC worked across agencies and internal and external organizational boundaries to partner and increase outreach efforts to promote MSI interest and participation in environmental justice and emergency management efforts.

The NRC's small business component of the Office of Small Business and Civil Rights hosted the second annual Small Business seminar and matchmaking event and participated in the National Veterans Small Business conference. Over the last 2 years, the NRC has maintained a Scorecard letter of "A" for small business contract performance.

## **POLICY SUPPORT**

Resources in FY 2015 will provide for additional policy and adjudicatory support to the Commission. Specifically, the budget provides resources for the following:

- agency policy formulation and guidance;
- legal advice and appellate adjudicatory support to the Commission;
- independent evaluations of agency programs and implementation of Commission policy directives:
- interaction with the Executive Branch on matters of international nuclear safety and security issues and developments;
- work with the International Atomic Energy Agency, the Nuclear Energy Agency, and other international partners;
- advice and assistance to the Commission on Congressional and protocol issues;
- public affairs activities leading to openness and increased public confidence; and
- management and oversight of agency programs.

These resources include \$9.5 million for the Office of the Commission to cover salaries and benefits (\$8.5 million), travel (\$0.6 million), and other costs (\$0.4 million). The resources support the Commission's policy and regulatory responsibilities and are constant with FY 2014 budget levels.

### **CHANGES FROM FY 2014 ENACTED BUDGET**

Funding represents a slight program decrease due to an off-year for the triennial Operational Safety Review Team (OSART) mission.

# **CORPORATE SUPPORT OUTPUT INDICATORS**

## **ACQUISITION**

Perce	Percent Of Eligible Service Contracting Dollars (Contracts Over \$25,000) That Use Performance-Based Contracting Techniques During The Fiscal Year.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	Not less than	Not less than	Not less than	Not less than	Not less than	Not less than			
	65%	65%	65%	65%	65%	65%			
Actual	79%	69%	60.50%	66%					

Percent of required synopses for acquisitions that are posted on the government-wide point-of-entry website (www.FedBizOpps.gov) duri the fiscal year*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	100% of all required synopses.	100% of all required synopses.	100% of all required synopses.					
	synopses.	synopses.	synopses.					
Actual	100%	100%	100%	100%				

<sup>\*</sup>Percent of required synopses for acquisitions that are posted on the government-wide point-of-entry website (www.FedBizOpps.gov) during the fiscal year. Synopses for acquisitions are those valued at over \$25,000 for which widespread notice is required including all associated solicitations except for acquisitions covered by an exemption in the Federal Acquisition Regulations.

# FINANCIAL MANAGEMENT

			Meet Statutory Fee C	Collection Requirement.		
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	Achieve	Achieve	Achieve	Achieve	Achieve	Achieve
	approximately	approximately	approximately	approximately 100%	approximately 100%	approximately 100%
	100% actual	100% actual	100% actual	collections when	collections when	collections when
	collections when	collections when	collections when	compared with	compared with	compared with
	compared with	compared with	compared with	projected	projected	projected
	projected	projected	projected	collections. Maintain	collections. Maintain	collections. Maintain
	collections.	collections.	collections.	past due accounts	past due accounts	past due accounts
	Maintain past	Maintain past	Maintain past	receivable at 1% or	receivable at 1% or	receivable at 1% or
	due accounts	due accounts	due accounts	less of annual billings	less of annual billings	less of annual billings
	receivable at 1%	receivable at 1%	receivable at 1%	for the fiscal year.	for the fiscal year.	for the fiscal year.
	or less of annual	or less of annual	or less of annual			
	billings for the	billings for the	billings for the			
	fiscal year.	fiscal year.	fiscal year.			
Actual	Target met	99.5%	99.3%	98.6%		
		collected. Past	collected. Past	collected. Past due		
		due amounts	due amounts	amounts receivable		
		receivable were	receivable were	were 1.0% of annual		
		1.34% of annual	1.0% of annual	billings.		
		billings	billings.			

	Percentage Of Non-Salary Payments Made Electronically And Accurately Within Established Schedule.							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	98%	98%	98%	98%	98%	98%		
Actual	98%	98%	98%	98%				

### **HUMAN RESOURCE MANAGEMENT**

	Percentage Of Professional Hires Retained For A Minimum Of 3 Years After Initial Employment								
	FY 2010 FY 2011 FY 2012 FY 2013 FY 2014 FY 2015								
Target	85%	85%	85%	85%	85%	85%			
Actual									

#### INFORMATION MANAGEMENT

Info	Information Dissemination Timeliness - Meets Agency Targets For Key Information Dissemination Channels, Including Public Meeting Notices, Freedom Of Information Act*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	Timeliness targets met for FOIA responses, public meeting notices, and NRC documents made publicly available [1]	Meet 3 out of 4 targets.	Meet 3 out of 4 targets.	Meet 3 out of 4 targets	Meet 3 out of 4 targets	Meet 3 out of 4 targets.			
Actual	4 out of 4	4 out of 4	3 out of 4	3 out of 4					

<sup>\*</sup>Targets: (1) Percent of the time NRC responds to FOIA requests within 20 working days (75%); (2) percentage of category 1,2, and 3 meetings on regulatory issues for which NRC posted a meeting notice on the public meeting notice web site at least 10 days in advance of the meeting (90%); (3) percent of non-sensitive, 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%); (4) percent of non-sensitive, 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 ADAMS main library (90%).

Public	Score for Information	1 Access - The NRC so	ore on the annual Americ	an Customer Sa	tisfaction index for F	ederal web sites.
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator	in	TBD; Target to be	73	73	73
	FY 2013		base lined in FY			
			2012			
Actual				76		

# **INFORMATION TECHNOLOGY**

	IT Investment Management - Average Score On A Scale Of 1-10 For All NRC It Investments On The OMB IT Dashboard.								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015			
Target	>7.5	>7.5	> 7.0	*Green Range	>7.5	80% of Agency investments are green at the end			
						of the fiscal year*			
Actual	6.38	7.53	green	green					

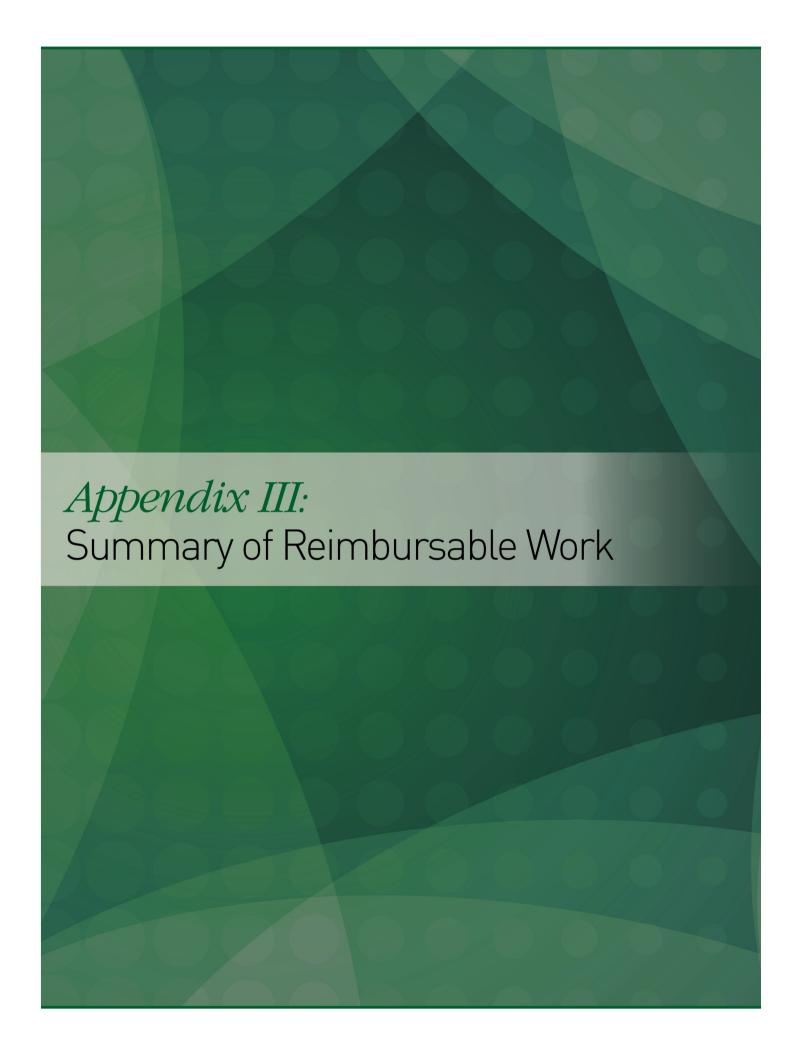
<sup>\*</sup>The OMB Exhibit 300Score indicator has been replaced by the IT Dashboard Score: The indicator target was changed in FY 2013 to reflect OMB's revised approach to IT Dashboard scoring.

Use Of N	RC Badge For Sign-O	n - Percent/Numbe	r Of FISMA-Reportable	, NRC-Hosted Applications	That Use The NRC Bac	lge (Personal Identi		
Verification Card) For Sign-On.*								
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		
Target	New indicator in F	(		TBD; indicator to	Preliminary target	40% of major		
	2013			be base lined in	to be established	systems requires		
				FY 2013.		PIV to sign-on		
Actual								

<sup>\*</sup>This indicator replaces the output indicator "Percent of the time that key IT infrastructure services are available" from the FY 2012 Budget.

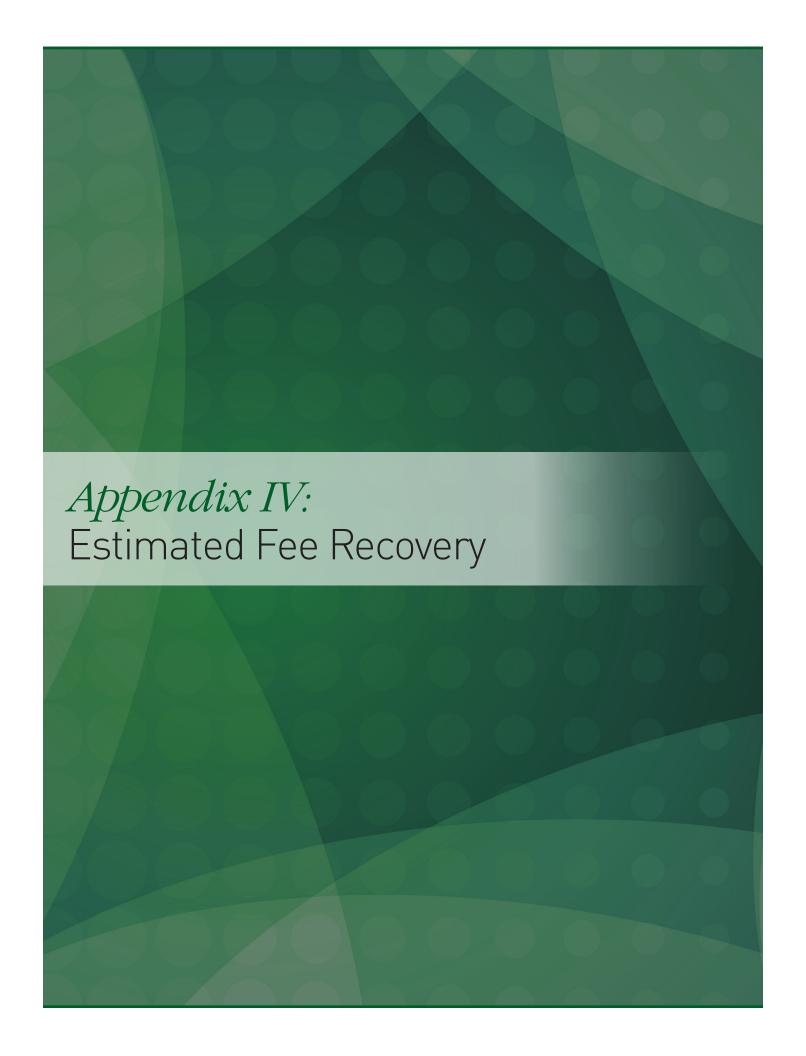
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Target	New indicator in FY			Satisfactory in all	Satisfactory in all	Satisfactory in all
	2013.			areas.	areas.	areas
Actual				The Office of the		
				Inspector General		
				(OIG) did not		
				report any		
				material		
				weaknesses in its		
				evaluation report		
				(OIG-13-A-03). (A		
				FISMA score was		
				not issued.)		

<sup>\*</sup>This indicator replaces the output indicator "IT Security Risk Management - Percent of operational applications and general support systems  $that \ have \ met \ NRC's \ annual \ risk \ management \ activities \ requirements \ in \ accordance \ with \ guidance \ from \ the \ CIO'' \ from \ the \ FY \ 2011 \ budget.$ 



Summary of Reimbursable Work* (New Budget Authority in Thousands of Dollars)	FY 2014 (Projection)	FY 2015 (Projection)				
TECHNICAL ASSISTANCE TO OTHER FEDERAL AGENCIES						
Employee Detail to Domestic Nuclear Detection Office (DHS)	174	174				
Employee Detail to Marshall Space Flight Center (NASA)	166	0				
Employee Detail to National Counterterrorism Center (NCTC)	162	162				
Fuel Cycle Research and Development (DOE)	500	500				
Gerald R. Ford Class Aircraft Carrier Safety Review (DOE)	0	0				
Joint Funding of ICRP Activities (EPA)	25	25				
Navy Reviews (U.S. Navy)	12	12				
Next Generation Nuclear Plant (NGNP) Cooperative Activities (DOE)	0	0				
Review/Approval of Selected Foreign Certificates for Packages (Casks) (DOE)	100	100				
Route Reviews (DOE)	0	0				
Waste Actions for Hanford (DOE)	100	100				
INTERNATIONAL ASSISTANCE	1					
International Invitational Travel (IAEA & various foreign governments and international organizations)	300	300				
Invitational Travel – American Institute in Taiwan	20	20				
COOPERATIVE RESEARCH						
Foreign Cooperative Research Agreements (Multiple)	2,100	2,100				
SECURITY RELATED ACTIVITIES	1					
Criminal History Program (Licensees)	2,500	2,500				
Information Access Authorization Program (Licensees)	880	880				
Material Access Authorization Program (Licensees)	0	0				
Totals	\$7,039	\$6,873				

<sup>\*</sup>Does not include classified reimbursable work agreements.

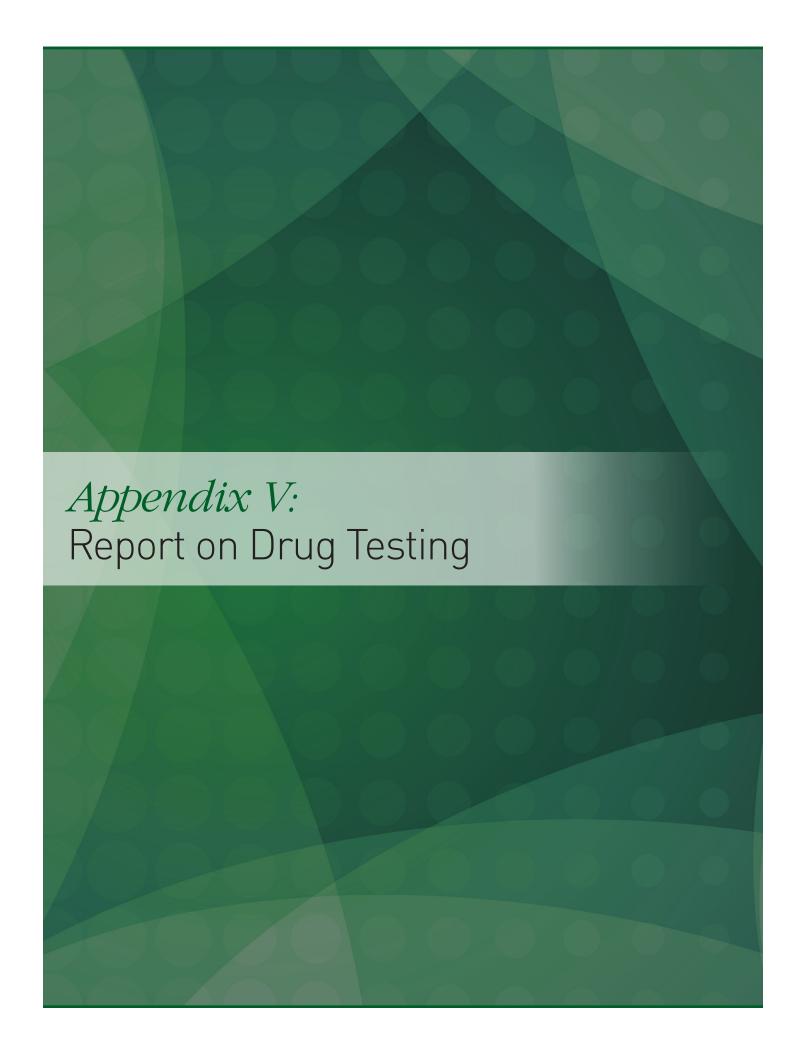


## Estmated Fee Recovery (Dollars in Millions)

	FY 2014	FY 2015			
		Projection			
Total Appropriation 1	1,055.9	1,059.5			
Less Non-Fee Items 2	(21.8)	(20.4)			
Base	1,034.1	1,039.1			
Fee Recovery Rate - 90% of Base	930.7	935.2			
Amount to be Recovered through Fees	\$930.7	\$935.2			
Estimated Part 170 Fees \$324.8 \$326.4					
Percent of total recovered amount	0.4%	0.4%			
Estimated Part 171 Annual Fees	\$605.9	\$608.9			
Percent of total recovered amount	0.6%	0.6%			
Total Net Appropriated	\$125.2	\$124.2			
Numbers may not add due to rounding.					
Note: As a fee based agency, reduction to agency base budget yiel those reductions	ds a 10% reduction in net budget	authority for every dollar of			
Waste Incidental to Reprocessing (WIR) 2	1.4	1.4			
Generic Homeland Security 2	19.5	18.1			
Inspector General OIG- DNFSB 2	0.9	0.9			
. Total Non-Fee Items	\$21.8	\$20.4			

2. Non Fee Items

<sup>1.</sup> Includes both Salaries and Expenses and Inspector General Appropriations



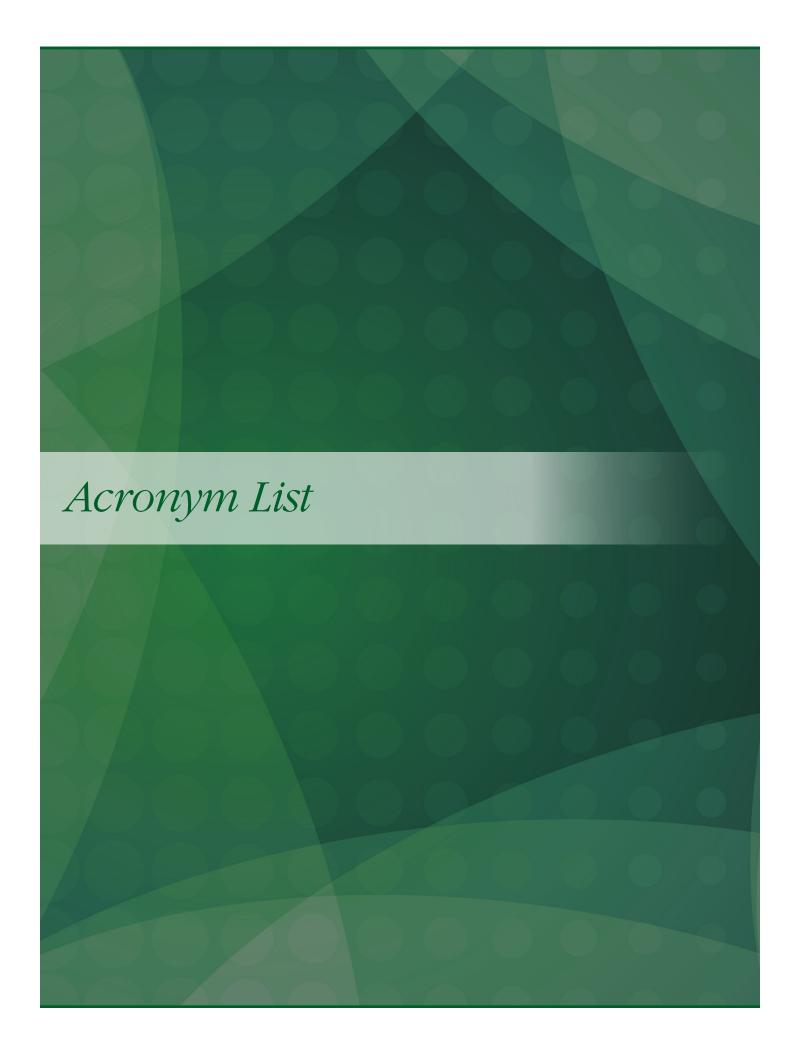
## REPORT TO CONGRESS ON DRUG TESTING

Congress and the U.S. Department of Health and Human Services (HHS) initially approved the U.S. Nuclear Regulatory Commission's (NRC's) Drug Testing Program in August 1988, and the agency subsequently updated the program in November 1997. The program was revised 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 under Executive Order (E.O.) 12564 includes random, applicant, voluntary, follow-up, reasonable suspicion, and accident-related drug testing. Testing was initiated for nonbargaining unit employees in November 1988 and for bargaining unit employees in December 1990 after an agreement was negotiated with the National Treasury Employees Union. On August 25, 2008, the NRC's testing program was expanded to include all NRC sensitive positions as testing designated; therefore, all employees became subject to random drug testing.

During fiscal year 2013, the NRC conducted approximately 2,210 tests of all types between October 1, 2012, and September 30, 2013. There were two positive drug test results (one for marijuana, one for amphetamines). A third individual voluntarily admitted to marijuana use. Each of these individuals completed the required outpatient treatment programs. Two continue to be subject to follow-up drug testing while the third subsequently tested positive for marijuana during the follow-up testing process and was therefore terminated from federal service.

The NRC also completed internal quality control reviews during the past year to ensure that the agency's program continues to be administered in a fair, confidential, and effective manner.

The NRC's drug testing program is based on the principles and guidance of E.O. 12564, Public Law 100-71, HHS guidelines, and Commission decisions.



## LIST OF ABBREVIATIONS AND ACRONYMS

**3WFN:** Three White Flint North, one of the headquarters buildings of the U.S. Nuclear Regulatory Commission (NRC).

**ABWR:** The Advanced Boiling Water Reactor is a Generation III boiling-water reactor.

**ACRS:** Advisory Committee on Reactor Safeguards

**ADAMS:** The Agencywide Documents Access and Management System is the NRC's official recordkeeping system that provides access to vast "libraries" or collections of documents related to the agency's regulatory activities.

**ADR:** The Alternative Dispute Resolution Program supports the NRC's commitment to promote and maintain a discrimination-free work environment.

**AEA:** The Atomic Energy Act refers to a number of different laws on the governance of nuclear power and nuclear weapons production.

**ALARA:** As low as is reasonably achievable.

ASP: Accident Sequence Precursor.

**BWR**: A boiling-water reactor is a type of nuclear reactor. It is the second most common type of nuclear reactor after the pressurized-water reactor.

**CCDP:** Conditional core damage probability.

**CFR:** The *Code of Federal Regulations* is the codification of the general and permanent rules and regulations published in the *Federal Register* by the executive departments and agencies of the Federal Government of the United States.

**CoC:** A certificate of compliance for a cask model is issued by the NRC for findings that meet the requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) 72.236, "Specific Requirements for Spent Fuel Storage Cask Approval and Fabrication."

**COL:** A combined operating license is the NRC's simultaneous issuance of a nuclear power plant construction permit and operating license.

**CPIC:** Capital Planning and Investment Control compares actual results with expected results after an IT investment has been fully implemented. This is done to assess the IT investment's impact on program performance, to identify any changes or modifications that might be needed, and to revise the IT investment management process based on lessons learned through its application.

**DBT:** Design-basis threats characterize the adversary against which nuclear plant owners must design physical protection systems and response strategies.

**DC:** Design certification is the NRC approval of a nuclear power plant design, independent of an application to construct or operate a plant.

DOE: U.S. Department of Energy.

**EIS:** An environmental impact statement is a document that the National Environmental Policy Act requires for Federal Government agency actions "significantly affecting the quality of the human environment." A decision-making tool, an EIS describes the positive and negative environmental effects of proposed agency action and cites alternative actions.

**EPA.** Environmental Protection Agency.

**ESBWR.** The Economic Simplified Boiling-Water Reactor is a 4,500-megawatt-thermal (MWt) reactor that uses natural circulation for normal operation and has passive safety features.

**ESP:** An early site permit is the NRC approval of one or more sites for a nuclear power facility, independent of an application for a construction permit or combined license.

**EST:** Extended storage and transportation [of spent nuclear fuel and high-level waste].

**FAIMIS:** The Financial Accounting and Integrated Management Information System is part of the NRC's financial systems upgrade.

**FCOP:** Fuel cycle oversight process.

**FFD:** The Fitness-for-Duty Program is required for all NRC licensees by 10 CFR Part 26, Subpart K, "FFD Programs for Construction." FFD includes drug testing, behavioral observation, and fitness monitoring programs.

**FISMA:** The Federal Information Security Management Act is a U.S. Federal law enacted in 2002 as Title III of the E-Government Act of 2002. The act requires each Federal agency to develop, document, and implement an agencywide program to provide information security for the information and information systems that support the operations and assets of the agency, including those that another agency, contractor, or other source provides or manages.

**FOF:** Force-on-Force exercises assess a nuclear plant's physical protection to defend against the so-called design-basis threat.

**FOIA:** The Freedom of Information Act is a law ensuring public access to U.S. Government records. Upon written request, agencies of the U.S. Government are required to disclose those records unless they can be lawfully withheld from disclosure under one of nine specific exemptions in the FOIA.

**FTE:** Full-time equivalent is a way to measure a worker's involvement in a project. An FTE of 1.0 means that the person is equivalent to a full-time worker, whereas an FTE of 0.5 signals that the worker is only half-time.

**FY:** Fiscal year, a period used for calculating annual financial statements in businesses and other organizations.

**GE-Hitachi:** GE-Hitachi is a joint venture between General Electric, Hitachi, and Toshiba. GE-Hitachi operates the fuel fabrication facility in Wilmington, NC.

**GWd/MTU:** Gigawatt-days per metric ton of uranium is a measurement of the actual energy released from an initial fuel mass, used in the calculation of burnup or fuel use. Can also be expressed as gigawatt-days per metric ton of heavy metal (GWd/MTHM).

HLS: Homeland security is a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.

**HLW:** High-level waste is the highly radioactive material produced as a byproduct of the reactions that occur inside nuclear reactors. High-level wastes are either in the form of spent reactor fuel when it is accepted for disposal or waste materials remaining after spent fuel is reprocessed.

**HOC:** Headquarters Operations Center.

**HQ:** Headquarters refers to the NRC headquarters campus in the Washington, DC, metropolitan area.

**IAEA:** International Atomic Energy Agency.

ICRP: International Commission on Radiological Protection

**IM:** Information Management is an NRC-wide initiative to collect and manage agency information; to improve the productivity, effectiveness, and efficiency of agency programs; and to enhance the availability and usefulness of information to users inside and outside the agency.

**IMPEP:** The Integrated Materials Performance Evaluation Program is a program that the NRC designed and piloted as a review process for Agreement State and NRC regional radioactive materials programs.

INIS: International Isotopes.

ISFSI: An independent spent fuel storage installation is a complex designed and constructed for the interim storage of spent nuclear fuel, solid reactor-related greater than Class C (GTCC) waste, and other radioactive materials associated with spent fuel and reactor-related GTCC waste storage.

ISA: Integrated safety analysis.

ISG: Interim staff guidance refers to documents that the NRC issues to clarify or address issues not discussed in a Standard Review Plan.

ISMP: An Integrated Source Management Portfolio is a secure and effective set of automated tools to house and maintain information on licensees, nationally tracked sources possessed by licensees, and licensee transactions.

**IT:** Information technology deals with the use of computers and software.

**KEPCO:** Korea Electric Power Corporation.

**LER:** License event report.

**LER Search:** License Event Report Search System.

**LES:** Louisiana Energy Services is a group of some of the largest companies in the nuclear power field and is a supplier of enriched uranium for commercial atomic power reactors.

**LLW:** Low-level waste includes items that have become contaminated with radioactive material or have become radioactive through exposure to neutron radiation.

**LVS:** The License Verification System is a national verification system that would be used to detect and prevent unauthorized parties with malicious intent from obtaining nuclear materials.

**MC&A:** Material control and accounting means the use of control and monitoring measures to prevent or detect loss of special nuclear materials. Material accounting is defined as the use of statistical and accounting measures to maintain knowledge of the quantities of special nuclear materials present in each area of a facility. It includes the use of physical inventories and material balances to verify the presence of material or to detect the loss of material through theft.

**MDEP:** The Multinational Design Evaluation Program is a multinational initiative taken by national safety authorities to develop innovative approaches to leverage the resources and knowledge of the national regulatory authorities who will be tasked with reviewing new reactor power plant designs.

**MOX:** Mixed oxide is nuclear fuel containing more than one oxide of fissile or fertile materials.

**MSI:** Minority-Serving Institution.

**NEPA:** National Environmental Policy Act.

**NERC:** The North American Electric Reliability Council is the organization of U.S. electrical grid operators.

NFPA: National Fire Protection Association.

**NFS:** Nuclear Fuel Services, Inc., is a company that supplies fuel for the U.S. Navy's fleet of nuclear-powered vessels. It also processes weapons-grade uranium into nuclear reactor fuel.

**NGNP:** A Next Generation Nuclear Plant is a Generation IV version of the very high temperature reactor.

**NMED:** Nuclear Materials Event Database.

**NMIP:** The Nuclear Materials Information Program is an interagency effort managed by DOE 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.

NMP: The National Materials Program is a term that has been applied to the broad collective frameworks within which both the NRC and the Agreement States function in carrying out their respective radiation safety regulatory programs.

NRC: U.S. Nuclear Regulatory Commission.

NSTS: The National Source Tracking System is a major security initiative of the NRC that tracks high-risk radioactive sources from the time that they are manufactured or imported through their disposal or export (or until they decay enough to no longer be of concern).

**NUREG:** One of a series of technical reports issued by the NRC.

NWPA: The Nuclear Waste Policy Act of 1982 created a timetable and procedure for establishing a permanent underground repository for high-level radioactive waste by the mid-1990s. The Act provided for some temporary Federal storage of waste, including spent fuel from civilian nuclear reactors.

**OE:** Office of Enforcement.

**OECD:** Organization for Economic Co-operation and Development.

**OIG.** Office of the Inspector General.

**OIP:** Office of International Programs.

**OMB:** Office of Management and Budget.

**OPM:** Office of Personnel Management.

**ORR:** An operational readiness review inspection is conducted by the NRC when construction nears completion for the facility's most safety-significant features, including but not limited to chemical safety, fire protection, radiological control procedures, emergency preparedness, training, and qualification of facility personnel and criticality safety.

**OWFN:** One White Flint North, one of the NRC's headquarters buildings.

**PACS:** The Physical Access Control System refers to an NRC infrastructure upgrade.

PB: The President's Budget is the President's proposal to the U.S. Congress, which recommends funding levels for the next fiscal year, beginning October 1.

**PBPM:** Planning, Budgetary, and Performance Measurement.

**PCS:** Permanent Change of Station is an NRC program that assists with employee relocations.

PII: Personally Identifiable Information.

PMM: Project Management Methodology is a tool that describes every step in the project lifecycle in depth, so that project managers know exactly which tasks to complete and when and how to do them.

PRA: Probabilistic risk assessment.

**PRM:** A petition for rulemaking is the mechanism by which individuals, public interest groups, and private enterprise can argue in favor of changes or new rules for ensuring the general welfare of the Nation.

**PSSC:** Principal structures, systems, and components.

**PWR:** Pressurized-water reactors keep water under pressure so that it heats but does not boil. The water from the reactor and the water that is turned into steam in the steam generator do not mix.

**RASCAL:** Radiological Assessment System for Consequence Analysis.

**RIC:** The Regulatory Information Conference is an annual conference that brings together over 3,000 participants from 32 countries to provide an opportunity for Government, industry, international agencies, and other interested stakeholders and members of the public to meet and discuss safety initiatives and regulatory trends.

**ROP:** The Reactor Oversight Process is the process by which the NRC monitors and evaluates the performance of commercial nuclear power plants. Designed to focus on plant activities most important to safety, the process uses inspection findings and performance indicators to assess each plant's safety performance.

**RPS.**: The Reactor Programs System provides an integrated methodology for planning, scheduling, conducting, reporting, and analyzing inspection activities at the nuclear power reactor and fuel facilities in the United States.

RTR: Research and test reactors.

**SDP:** The significance determination process assigns risk characterization to inspection findings based on large early release frequency considerations.

SER: The safety evaluation report documents the NRC staff's technical reviews.

**SGI:** Safeguards Information is a special category of sensitive unclassified information that must be protected. Safeguards Information concerns the physical protection of operating power reactors, spent fuel shipments, strategic special nuclear material, or other radioactive material.

**SIDS:** Suspicious Incidents Data System.

**SLES:** The Secure LAN/Electronic Safe is an electronic document management system for sensitive Safeguards Information.

**SMR:** A small modular reactor design is less than one-third the size of a current nuclear plant and can create approximately a quarter of the energy output.

**SNF:** Spent nuclear fuel.

**SNM:** Special nuclear materials are defined by Title I of the Atomic Energy Act of 1954 as plutonium, uranium-233, or uranium enriched in the isotope uranium-233 or uranium-235. The definition includes any other material that the NRC determines to be special nuclear material, but it does not include source material. The NRC has not declared any other material as SNM.

**SRP:** Standard Review Plan.

**STAQS:** Strategic Acquisition System.

**STEM:** Science, Technology, Engineering, and Mathematics.

**STP:** The South Texas Project is a nuclear power station southwest of Bay City, TX.

**TAPIS:** The Transportation Approval Package Information System is one of several applications that use National Institutes of Health IBM mainframe timesharing services. Although the hardware for these applications resides outside the NRC, the agency still supports them.

**US-APWR:** The United States-Advanced Pressurized-Water Reactor is a standard design for a 4,451-MWt pressurized-water reactor.

**USEC:** The U.S. Enrichment Corporation supplies enriched uranium fuel for commercial nuclear power plants.

**WASSC:** The Waste Safety Standards Committee is an IAEA safety committee.

**WBL:** Web-Based Licensing is a materials licensing system that the NRC uses for managing licensing information for businesses using radioactive materials.

**WIR:** Waste incidental to reprocessing is the waste byproduct that comes from reprocessing nuclear fuel.

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