

NUREG-1100, Vol. 25 **BUDGET MATERIALS FISCAL YEAR 2010 MAY 2009**



PERFORMANCE BUDGET FISCAL YEAR 2010

MAY 2009

NUREG-1100, Vol. 25

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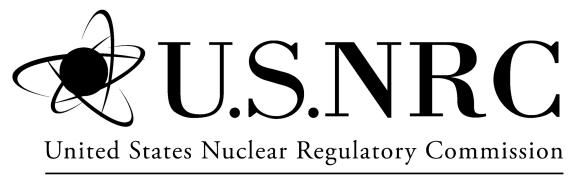
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NUREG-1100 VOLUME-25



Protecting People and the Environment

PERFORMANCE BUDGET FISCAL YEAR 2010

MAY 2009

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EXECUTIVE SUMMARY



NRC Mission:

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.

Executive Summary

Nuclear materials are used in a variety of applications in the American economy. The best known use is in the production of electricity. Nuclear power produced over 20 percent of the electrical needs of the Nation in 2008. The majority of the U.S. Nuclear Regulatory Commission's (NRC's) work is focused on the regulation of 104 nuclear power reactors and 32 non-power (research and test) reactors. In addition, nuclear materials are used in a wide range of both industrial and medical applications. For example, about one-third of all patients admitted to American hospitals are diagnosed or treated using radioisotopes. In fact, most major hospitals have departments dedicated entirely to radiation medicine.

Because of the potential hazards involved in using radioactive materials, the nuclear industry is strictly regulated. From nuclear fuel facilities, which produce the fuel used in nuclear power plants; to the 104 nuclear power reactors and other users of nuclear materials; and through the safe transportation, storage, and disposal of nuclear waste materials throughout the United States, the agency's regulatory programs ensure that radioactive materials are used safely and securely. Under the NRC's Agreement State program, 36 states have assumed regulatory responsibilities for overseeing the activities of industrial, medical, and certain small uses of nuclear materials in their states. The agency works closely with these States to ensure that public health and safety are maintained. The NRC has a defined set of regulatory practices, knowledge, and expertise specific to each type of facility or activity that it regulates to address public health and safety and security issues.

Overview of the NRC Performance Budget

The NRC's fiscal year (FY) 2010 Performance Budget provides the resources necessary to carry out the agency's mission. The NRC's proposed FY 2010 budget is \$1,071.1 million, which represents an increase of \$25.6 million over the FY 2009 enacted level to continue effective regulatory oversight of operating nuclear facilities, the use of nuclear materials, and support of the nuclear resurgence in the United States.

The following table provides the NRC budget authority by appropriation:

			FY 2010	
NRC Appropriation	FY 2008 Enacted ¹	FY 2009 Enacted ¹	Request	Change from FY 2009
Salaries and Expenses (S&E)				
Budget Authority	\$917.3	\$1,034.7	\$1,061.0	\$26.3
Offsetting Fees	771.2	860.9	878.1	17.2
Net Appropriated S&E	146.1	173.8	182.9	9.1
Office of the Inspector General (OIG)	· · · · · · · · · · · · · · · · · · ·			
Budget Authority	\$8.7	\$10.9	\$10.1	(\$0.8)
Offsetting Fees	7.9	9.8	9.1	(0.7)
Net Appropriated – OIG	0.9	1.1	1.0	(0.1)
Total NRC (\$M)	· · · · · · · · · · · · · · · · · · ·			
Budget Authority	\$926.1	\$1,045.5	\$1,071.1	\$25.6
Offsetting Fees	779.1	870.6	887.2	16.6
Total Net Appropriated	\$147.0	\$174.9	\$183.9	\$9.0

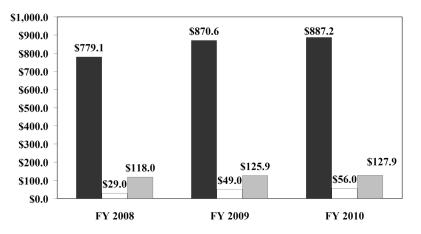
TOTAL NRC BUDGET AUTHORITY BY APPROPRIATION (Dollars in Millions)

Amounts shown exclude prior year Nuclear Waste Fund appropriations used. Resources in FY 2008 included \$27 million in funding from prior years in addition to the \$29 million from the enacted budget (\$56 million total). Resources available in FY 2009 include \$10 million in funding from prior years in addition to the \$49 million from the enacted budget (\$59 million total). Total program cost in FY 2009 and FY 2010 are approximately equal. Numbers may not add due to rounding.

The proposed FY 2010 budget reflects \$887.2 million from offsetting fees assessed to NRC licensees, resulting in a net appropriation of \$183.9 million. This is an increase of approximately \$9.0 million in total net appropriations. Funding amounts shown are for full cost, reflecting allocation of the agency's infrastructure and support costs.

Financing the NRC's Budget

Pursuant to the provisions of the Energy Policy Act of 2005, the NRC's FY 2010 budget provides for 90 percent fee recovery, less appropriations from the Nuclear Waste Fund, and appropriations to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and to conduct generic homeland security activities. These appropriations are excluded from NRC fee recovery requirements. The NRC's FY 2010 budget will be financed with \$887.2 million from user fees, \$127.9 million from the General Fund, and \$56.0 million from the Nuclear Waste Fund. The NRC's remaining Nuclear Waste Fund balances, approximately \$10 million, will be used in FY 2009, making the total High-Level Waste Repository program cost in FY 2009 and FY 2010 approximately equal. Figure 1-1 summarizes the NRC's financing through offsetting fees, the nuclear waste fund, and the general fund.



■ OFFSETTING FEES □ NUCLEAR WASTE FUND ■ GENERAL FUND

FIGURE 1-1 NRC FINANCING (DOLLARS IN MILLIONS)

Strategic Plan

Safety - Ensure protection of public health and safety and the environment

Security - Ensure the secure use and management of radioactive materials

The NRC's FY 2008–FY 2013 Strategic Plan contains the two strategic goals of Safety and Security, which describe the agency's core functions. This focus on safety and security ensures protection of the public and the environment. In order to meet these goals, the NRC's scope of responsibility includes regulation of commercial nuclear power plants; research and test reactors; nuclear fuel cycle facilities; medical, academic, and industrial uses of radioactive materials; the decommissioning of these facilities and sites; and the transport, storage, and disposal of radioactive materials and wastes. Based on these regulatory processes, the NRC's resources are allocated to its Nuclear Reactor Safety Program and Nuclear Materials and Waste Safety Program areas. Activities in these two major program areas contribute directly to the achievement of the agency's goals and associated performance measures.

FY 2010 Budget Changes

The NRC's FY 2010 proposed budget reflects a net change of \$25.6 million. The major changes are in the following programs:

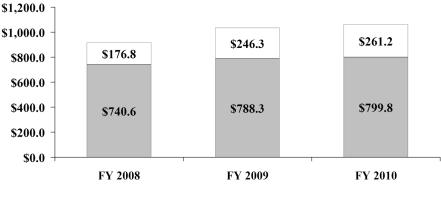
Nuclear Reactor Safety Program: The resource increases in this program are due primarily to support the Reactor Oversight and New Reactors programs. In the New Reactors program, an additional \$4.9 million is required primarily to review the applications

from licensees. Resources will be used for the review of combined licenses (COLs), technical review and regulatory research activities, and establishment of an oversight program that includes construction inspection of new facilities, vendor inspection for new plant components, and operator licensing. In the Reactor Oversight program, an additional \$5.3 million will be used for increased salaries and benefits costs associated with continued inspections and oversight activities to confirm the adequacy of nuclear reactor safety and security in the current environment.

Nuclear Materials and Waste Safety Program: The resource increase in this program is primarily to support the Nuclear Materials Users and High-Level Waste Repository (HLW) programs. The Nuclear Materials Users program increases by \$5.1 million primarily to develop and implement the Web-Based Licensing (WBL) System and expand the capabilities of the National Source Tracking System (NSTS). In the High-Level Waste Repository program, an additional \$7.0 million will be used to continue ongoing license application review activities. This maintains the total High-Level Waste Repository program funding at approximately the same level as FY 2009. In FY 2009 the total program cost is \$59 million; \$49 million in new appropriations and \$10 million in NWF balances.

Summary by Major Programs

Figure 1-2 shows the resources for the Nuclear Reactor Safety and Nuclear Materials and Waste Safety programs by fiscal year. In accordance with the requirements defined in Section 22.6(a) of Office of Management and Budget Circular A-11, the NRC is providing the full cost of its programs. The full cost includes an allocation of the agency's infrastructure and support costs to specific programs.



NUCLEAR MATERIALS AND WASTE SAFETY PROGRAM
 NUCLEAR REACTOR SAFETY PROGRAM



BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS (Dollars in Millions)

						FY 201	10		
	FY 20	008	FY 20 Enact		Request		Change FY 20		
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Nuclear Reactor Safe	ety Program	n							
New Reactors	\$234.4	799	\$243.5	819	\$248.3	856	\$4.9	37	
Licensing Tasks	213.5	792	238.6	821	237.4	820	-1.2	-2	
License Renewal	22.5	108	33.2	122	35.7	135	2.5	13	
International Activities	11.2	38	11.9	38	15.1	45	3.2	7	
Reactor Oversight	239.3	1,076	236.8	1,043	242.1	1,041	5.3	-3	
Incident Response	19.6	72	24.3	71	21.1	71	-3.2	0	
Nuclear Reactor Safety Program Subtotal	\$740.6	2,886	\$788.3	2,915	\$799.8	2,967	\$11.5	52	
Nuclear Materials an	nd Waste S	afety Prog	gram						
Fuel Facilities	\$35.0	159	\$48.3	192	\$49.5	196	\$1.2	4	
Nuclear Materials Users	57.4	270	85.5	332	90.6	337	5.1	4	
Decommissioning and Low-Level Waste	28.2	127	37.5	145	37.3	153	-0.2	8	
Spent Fuel Storage and Transportation	27.2	109	26.1	104	27.8	111	1.7	8	
Subtotal	147.7	665	197.3	773	205.2	796	7.8	23	
High-Level Waste Repository ¹	29.0	105	49.0	102	56.0	128	7.0	26	
Nuclear Materials and Waste Safety Program Subtotal	\$176.8	770	\$246.3	875	\$261.2	924	\$14.8	49	
OIG Subtotal	\$8.7	51	\$10.8	58	\$10.1	56	-\$0.7	-2	
Reimbursable FTE		22		21		17		-4	
Agency Total	\$926.1	3,729	\$1,045.5	3,869	\$1,071.1	3,964	\$25.6	95	

Numbers may not add due to rounding. ¹Amounts shown exclude prior year Nuclear Waste Fund appropriations used in FY 2008 and 2009. Total High-Level Waste Repository program cost in FY 2008 was \$56 million and in FY 2009 is \$59 million.

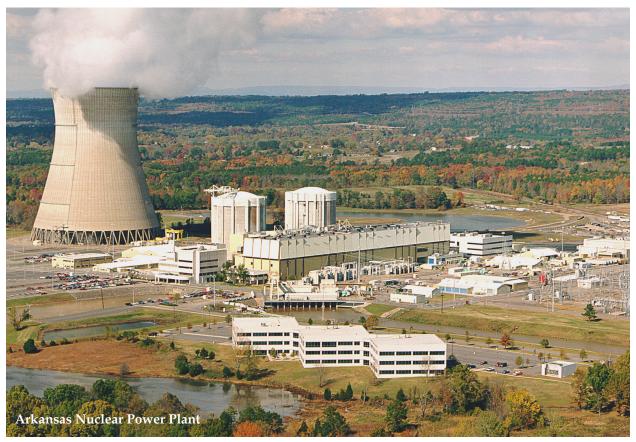
A discussion of the highlights of major FY 2010 activities for each of the NRC programs follows.

Nuclear Reactor Safety Program

The Nuclear Reactor Safety Program encompasses all NRC efforts to ensure that civilian nuclear power reactor facilities and research and test reactors are licensed and operated in a manner that adequately protects the public health and safety, preserves the environment, and protects against radiological sabotage and theft or diversion of special nuclear materials. The FY 2010 budget request provides \$799.8 million for the Nuclear Reactor Safety Program. This includes \$551.5 million to ensure the safe and secure operation of, and effective emergency preparedness for, the Nation's 104 nuclear power reactors, and \$248.3 million to review the industry's applications to license new nuclear power reactors.

New Reactors

FY 2010 Activities – This program supports the licensing and inspection activities of new nuclear power reactors under 10 CFR Part 52 (Code of Federal Regulations, Licenses, Certifications, and Approvals for Nuclear Power Plants) in response to industry demands. The FY 2010 budget includes \$248.3 million for new reactor activities associated with the industry's renewed interest in building nuclear power reactors.



Executive Summary

These resources are requested to support design certification (DC) reviews, DC amendment reviews, and the review of COL applications. The resources also support inspection of vendors and construction of new facilities.

Licensing Tasks

FY 2010 Activities – The Licensing Tasks Program supports licensing of the existing 104 civilian nuclear power reactors and 32 test and research reactors to ensure that they are operated in a manner that adequately protects public health and safety and the environment and to safeguard special nuclear materials used in reactors. This program provides resources to support the review of extended power uprates (EPU) applications, the expected licensing activities associated with the transition of reactor sites to the National Fire Protection Association (NFPA) Standard 805, and Improved Standard Technical Specifications (ISTS) conversion. These power uprates, if approved, provide much needed energy to the electrical grid in the United States. The Fire Protection transition may improve safety margins at nuclear reactor facilities. The NRC's FY 2010 budget request includes \$237.4 million for these activities.

Reactor License Renewal

FY 2010 Activities – Reactor operating licenses for nuclear reactors licensed under 10 CFR Part 50 are granted for 40 years and can be renewed for an additional 20 years. The review process for renewal applications is designed to assess whether a reactor can continue to be operated safely during the extended period of operation. To renew a license, the utility must demonstrate that the effects of aging will not adversely affect structures or components important to safety during the renewal period. This program provides resources for review of existing license renewal applications, new renewal applications, the associated license renewal regulatory framework, and hearing support efforts. The FY 2010 budget includes \$35.7 million to support these activities.

International Activities

FY 2010 Activities – The NRC's international responsibilities involve participation in activities that support U.S. Government compliance with international treaties and agreements; export and import licensing of nuclear facilities, equipment, and materials; programs of bilateral nuclear cooperation and assistance; and support for multinational nuclear safety organizations, such as the International Atomic Energy Agency (IAEA) and the Organization for Economic Cooperation and Development's Nuclear Energy Agency (NEA). The NRC participates in a wide range of mutually beneficial programs to exchange information with counterparts in the international community on matters of policy formulation and implementation, and for developing approaches for the safe and secure use of nuclear material for peaceful purposes worldwide. Examples of this are activities that enhance domestic and global nuclear safety, both bilaterally and through multilateral organizations such as the IAEA and the NEA. Resources increase primarily to support and participate in international activities such as the IAEA

Integrated Regulatory Review Service mission to review the NRC's operating power reactor program. The FY 2010 budget includes \$15.1 million to support these activities.

Operating Reactor Oversight

FY 2010 Activities – The NRC's Reactor Oversight Process outlines the agency's actions to verify that nuclear plants are being operated safely and in accordance with the NRC's rules and regulations. The NRC has full authority to demand that a licensee take immediate action for any conditions that result in excess risk to the public, including requiring a plant to shut down, if necessary. The NRC conducts reactor inspection and performance assessment of 104 nuclear power reactors and 32 test and research reactors licensed to operate. The inspection program is key to the NRC identifying potential safety and security problems with licensee operations. In addition to supporting inspections and performance assessment activities, resources also support research work related to industry trend data, provide ongoing support for the significance determination process used to evaluate the potential risk significance of inspection findings, trending support, and evaluate cross-cutting issues in the areas of human performance and safety culture. The FY 2010 budget includes \$242.1 million to support these activities.

Incident Response

FY 2010 Activities – The NRC emergency preparedness and incident response activities 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 to minimize possible radiation doses to members of the public. The NRC supports reactor emergency preparedness, incident response, and security to ensure proper response and readiness in the current threat environment and resolution of policy and program issues. This includes 24/7 telecommunications with licensees, federal agencies, and other stakeholders, as well as preparation and participation by headquarters and regional offices in radiological and interagency exercises. Resources also support the agency's continuity programs. NRC preparation for and actual response to events has been vital to the protection of the public health and safety in the United States. The FY 2010 budget includes \$21.1 million to support these activities.

Nuclear Materials and Waste Safety Program

Fuel Facilities

FY 2010 Activities – Nuclear fuel facilities process and fabricate uranium into reactor fuel. The NRC conducts the licensing, certification, inspection, environmental review, research, adjudicatory, enforcement, allegation, and other regulatory activities associated with fuel facilities to ensure adequate safety and security. Resources will also support the identification and action to resolve safety and safeguards issues and direct NRC's security-related activities to include physical protection, material control

Executive Summary

and accounting, and security enhancements. The FY 2010 budget request includes \$49.5 million to support these activities.

Nuclear Materials Users

FY 2010 Activities – The Nuclear Materials Users program provides for licensing, inspection, event evaluation, research, incident response, allegation, enforcement, and rulemaking activities to maintain the regulatory safety and security infrastructure needed to process and handle nuclear materials. The NRC also conducts materials activities related to Agreement States and liaison with all states, including oversight, technical assistance, regulatory development, and cooperative efforts. This includes funding to support the cost of Agreement State staff training, including associated travel costs and coordination with States, Federal agencies, and Native American Tribes on policy, notifications of interest, and homeland security initiatives. The NRC provides resources for development and implementation of the WBL System and continuous improvements and centralized oversight of information technology and information management. Resources will also provide for security activities, including the continued implementation of a national registry the NSTS of radioactive sources of concern. The FY 2010 budget includes \$90.6 million to support these activities.

Decommissioning and Low Level Waste

FY 2010 Activities – Decommissioning is the process of closing a nuclear facility followed by decontamination to levels that permit unrestricted release of the site. Low-level waste includes items that have become contaminated with radioactive material or have become radioactive through exposure to radiation. Low-level waste is typically stored on site by licensees, either until it has decayed away and can be disposed of as ordinary trash, or until the volume of waste is large enough for cost effective shipment to a low-level waste disposal site. The NRC ensures that safety requirements are being met throughout the decommissioning process by reviewing decommissioning or license termination plans, conducting inspections, and monitoring the status of activities to ensure that radioactive contamination has been reduced to levels that permit unrestricted release of the site, as well as the licensing of new, expansion, and restarts of uranium recovery facilities (both safety and environmental reviews). The FY 2010 budget includes \$37.3 million to support these activities.

Spent Fuel Storage and Transportation

FY 2010 Activities – Spent fuel is removed from a nuclear reactor and is stored either in water-filled pools at each reactor site or near the plant in shielded dry casks at independent spent fuel storage installations (ISFSIs). Currently most spent fuel in the United States remains stored at individual plants. With respect to transportation of radioactive material (non-spent fuel), about 3 million packages of radioactive materials are shipped each year in the United States – by highway, rail, air, and water. Regulating the safety of these shipments is the joint responsibility of the U.S.

Department of Transportation and the NRC. The NRC licenses, certifies, and inspects the interim storage of spent fuel from commercial nuclear reactors and the domestic and international transportation of radioactive materials to ensure safety and to meet industry needs. The FY 2010 budget includes \$27.8 million to support these activities.

High-Level Waste Repository

FY 2010 Activities – The NRC is continuing its licensing review of the DOE application for the HLW repository at Yucca Mountain. The NRC anticipates increased hearing-related activities in FY 2010. The FY 2010 budget includes \$56.0 million to support these activities.

Inspector General Program

The Office of the Inspector General's (OIG) FY 2010 proposed budget of \$10.102 million 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 NRC programs and operations and to promote cost-effective management. With these resources the OIG Audit sub-program will conduct approximately 25 audits and evaluations that will focus on agency programs involving the major management challenges and risk areas facing the NRC to include those agency programs with the most significant growth - the Nuclear Reactor Safety and Nuclear Materials Waste Safety Programs. The OIG Investigative sub-program will conduct approximately 70–90 investigations and Event Inquiries covering a broad range of allegations concerning misconduct and mismanagement affecting various NRC programs.

APPROPRIATIONS LEGISLATION

2 APPROPRIATIONS LEGISLATION

Proposed FY 2010 Appropriations Legislation

The U.S. Nuclear Regulatory Commission's (NRC's) proposed appropriations legislation for fiscal year (FY) 2010 is as follows:

Salaries and Expenses

For necessary expenses of the Commission in carrying out the purposes of the Energy Reorganization Act of 1974, as amended, and the Atomic Energy Act of 1954, as amended, including official representation expenses (not to exceed \$25,000), \$1,061,000,000 to remain available until expended: *Provided*, That of the amount appropriated herein, \$56,000,000 shall be derived from the Nuclear Waste Fund: *Provided further*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$878,102,000 in FY 2010 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 FY 2010, so as to result in a final FY 2010 appropriation estimated at not more than \$182,898,000.

Office of the Inspector General

For necessary expenses of the Office of the Inspector General in carrying out the provisions of the Inspector General Act of 1978, as amended, \$10,102,000 to remain available until September 30, 2011: *Provided*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$9,092,000 in FY 2010 shall be retained and be available until expended, for necessary salaries and expenses in this account, notwithstanding 31 U.S.C. 3302: *Provided further*, That the sum herein appropriated shall be reduced by the amount of revenues received during FY 2010, so as to result in a final FY 2010 appropriation estimated at not more than \$1,010,000.

Analysis of Proposed FY 2010 Appropriations Legislation

The analysis of the NRC's proposed appropriations legislation for FY 2010 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, AS AMENDED, AND THE ATOMIC ENERGY ACT OF 1954, AS AMENDED:

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

Appropriations Legislation

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. SHALL BE DERIVED FROM THE NUCLEAR WASTE FUND:

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

42 U.S.C. 10222(a)(4) provides that the amount of fees paid into the Nuclear Waste Fund by generators or owners of such waste and spent fuel shall be reviewed annually to determine if any adjustments are needed to ensure full cost recovery.

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

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

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

Under Title V of the Independent Offices Appropriation Act 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 any amount appropriated to the Commission from the Nuclear Waste Fund, funds appropriated 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, assigns new responsibilities to NRC for waste determinations and monitoring of waste disposal actions for material stored at the 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 \$2,086,000 requested to implement Section 3116 is excluded from NRC's fee recovery requirements.

Section 637 of the Energy Policy Act of 2005, P.L. 109-190, modifies 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

Appropriations Legislation

conducting security inspections. The \$27,245,000 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 2010 approximates 90 percent of the Commission's budget authority, less the amount requested to be derived from the Nuclear Waste Fund, the amount requested to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, and amounts requested for generic homeland security activities pursuant to Section 637 of P.L. 109-190.

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.

6. 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 any amount appropriated to the Commission from the Nuclear Waste Fund, funds appropriated 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 the Inspector General

7. FOR NECESSARY EXPENSES OF THE OFFICE OF THE INSPECTOR GENERAL IN CARRYING OUT THE PROVISIONS OF THE INSPECTOR GENERAL ACT OF 1978, AS AMENDED:

P. L. 95-452, 5 U.S.C. app., as amended by P. L. 100-504

P. L. 100-504 amended P. L. 95-452 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.

8. TO REMAIN AVAILABLE UNTIL SEPTEMBER 30, 2011:

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.

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

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 any amount appropriated to the Commission from the Nuclear Waste Fund, funds appropriated 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.

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.

10. 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 any amount appropriated to the Commission from the Nuclear Waste Fund, funds appropriated 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.

NUCLEAR REACTOR SAFETY

3 NUCLEAR REACTOR SAFETY

Nuclear Reactor Safety

The Nuclear Regulatory Commission (NRC) Nuclear Reactor Safety program encompasses the NRC's efforts to ensure that civilian nuclear power reactor facilities, research, and test reactors are licensed and operated in a manner that adequately protects the environment and the health, and safety of the public, as well as provides high assurance against radiological sabotage and theft or diversion of special nuclear materials. These efforts are carried out under a series of subprograms that implement the agency's regulatory process for nuclear reactors. These subprograms are New Reactors, Licensing Tasks, Reactor License Renewal, International Activities, Operating Reactor Oversight, and Incident Response. All funding amounts shown are for full cost, reflecting allocations for the agency's infrastructure and support costs.

					FY 2010				
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009		
Summary	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Budget Authority b	Budget Authority by Program								
Program Support	\$178.5		\$185.9		\$176.9		-\$9.0		
Program Salaries & Benefits	325.8	2,322	348.7	2,357	362.4	2,400	13.7	43	
Subtotal Program	504.3	2,322	534.7	2,357	539.4	2,400	4.7	43	
Infrastructure and Support	157.2	564	171.2	558	174.8	567	3.7	9	
Infrastructure and Support Salaries & Benefits	79.1		82.5		85.6		3.1		
Subtotal Program	236.3	564	253.6	558	260.4	567	6.8	9	
Total	\$740.6	2,886	\$788.3	2,915	\$799.8	2,967	\$11.5	52	

BUDGET OVERVIEW

Numbers may not add due to rounding.

BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY PROGRAM

					FY 2010				
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009		
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
New Reactors	\$234.4	799	\$243.5	819	\$248.3	856	\$4.9	37	
Licensing Tasks	213.5	792	238.6	821	237.4	820	-1.2	-2	
License Renewal	22.5	108	33.2	122	35.7	135	2.5	13	
International Activities	11.2	38	11.9	38	15.1	45	3.2	7	
Operating Reactor Oversight	239.3	1,076	236.8	1,043	242.1	1,041	5.3	-3	
Incident Response	19.6	72	24.3	71	21.1	71	-3.2	0	
Total	\$740.6	2,886	\$788.3	2,915	\$799.8	2,967	\$11.5	52	
Numbers may not add d	lue to roundir	ıg.							

New Reactors

					FY 2010					
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009			
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE		
Budget Authority b	Budget Authority by Program									
Program Support	\$178.9	667	\$175.0	671	\$173.5	693	-\$1.5	22		
Infrastructure and Support	55.5	132	68.5	148	74.8	163	6.4	15		
Total	\$234.3	799	\$243.5	819	\$248.3	856	\$4.9	37		

NEW REACTORS

Numbers may not add due to rounding.

Description:

The New Reactors program responds to industry's renewed interest in licensing nuclear power reactors to meet the Nation's future electric power generation needs. The NRC will review new nuclear power reactor design certification (DC), combined license (COL) applications, and Early Site Permit applications in a manner guided by the agency's safety and security regulations. The activities of the New Reactor program support achievement of the agency's strategic goals on safety and security.

FY 2010 Activities:

The fiscal year (FY) 2010 budget request for the New Reactors program includes resources to support the following ongoing activities:

Combined Licenses: As of April 2009, the NRC has received 17 COL applications from the nuclear power industry for sites across the country. In addition, industry indicated that it would submit several additional COL applications by 2010. In FY 2010, the NRC expects to continue the safety and environmental reviews of COL applications, under 10 CFR Part 52, including the supporting activities of emergency preparedness (EP) technical reviews, security plan technical reviews, security-related assessments, and financial analysis of COL applicants.

Watts Bar Unit 2: The NRC will continue its licensing and construction oversight activities for the Tennessee Valley Authority (TVA) Watts Bar Unit 2 project under 10 CFR Part 50.

Design Certifications: The agency will continue its review of three DC applications and one DC amendment. The NRC review process for new reactor designs involves certifying standard reactor designs through a rulemaking. When an applicant submits an application for construction of a new nuclear power plant using one of the certified designs, the license application review can proceed in a manner that ensures safety while minimizing delays for the applicant. Operator Licensing Examiner Program: The NRC will continue to develop and implement the Operator Licensing Examiner Program for new reactors, including support for the initial stages of simulator procurement. This program is designed to ensure that a sufficient number of licensing examiners are able to begin the 2-year certification process in 2011.

Advanced Reactor Program: The NRC will conduct technical review and regulatory research activities for advanced reactor designs.

Program Support: This area includes technical development activities and research to support new and advanced reactors and also supports the development of security policy, regulatory guidance, and infrastructure for new reactors. The NRC is participating in the Multinational Design Evaluation Program, through which several international regulatory authorities share expertise and resources in reviewing new designs and seek to find ways to harmonize codes, standards, and regulations for the review of future reactor designs.

The following are new activities planned for FY 2010:

Construction and Vendor Inspection Program: Industry construction plans project that up to eight sites will be under construction during 2012. Resources in FY 2010 support the development and implementation of this program, which ensures that plant components are manufactured as required, plants are built as licensed, and licensee operational programs are in place to support the safe startup and operation of new nuclear facilities. The lead time necessary to train, qualify, and deploy a qualified inspector is 2 years. This program also ensures that vendors have quality assurance programs that meet NRC regulations and that reactor components can perform as expected. Resources for technical review and regulatory research activities for advance reactor design increased funding from \$5.6 million and 7.7 FTE in FY 2009 to \$9.1 million and 27 FTE in FY 2010.

Changes from FY 2009 Enacted Budget:

Overall, the New Reactor program resources increase primarily as a result of agency infrastructure and support costs and support for the development of the Construction Inspection Program. There are no budgeted resources for the Global Nuclear Energy Project (GNEP) in FY 2010.

The associated increase includes resources for construction of a new headquarters office building and office and systems furniture which are offset by a decrease of the onetime costs to support the relocation of the Region II office in Atlanta, GA, where the Construction Inspection Program is located.

Nuclear Reactor Safety Output Measures:

Early Site Permits (ESP):

	rly site permit applic	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Issue draft safety evaluation report (SER) and draft environmental impact statement (EIS) for 3 applications. Issue final safety evaluation report (SER) for 1 application.	Issue final SER for 2 applications and final EIS for 3 applications. Begin review of the Vogtle ESP application.	Complete milestones for Vogtle ESP application. Begin review of 1 ESP application.	Complete 1 ESP review (North Anna). Continue review of 1 existing ESP applications (Vogtle).	Complete 1 ESP review (Vogtle).	No ESPs planned for FY 2010.
Actual:	Issued draft SER and EIS for 3 applications, and final SER for 1 application.	Issued 2 FSER and issued 2 final EIS (Note: North Anna delayed as result of applicant design change). Started review of Vogtle ESP.	Issued draft SER and draft EIS for Vogtle ESP application. (Note: Amarillo ESP application was not submitted).	Issued ESP on North Anna. Vogtle ESP review continued on schedule.		

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Complete milestones necessary to complete AP1000 design certification rulemaking Begin review of ESBWR design certification application.	Complete milestones necessary to complete ESBWR design certification.	Complete milestones necessary to complete ESBWR design certification. Issue the draft SER for ESBWR.	Complete milestones to support ESBWR and AP 1000 design certification. Begin review of EPR and US APWR design certification application review.	Complete milestones necessary to support ESBWR, EPR and US APWR design certification reviews. Complete review of AP 1000 design certification application.	Complete review of ESBWR desigr certification and AP1000 amended application and continue review of EPR and APWR design certification applications.
Actual:	Completed milestones necessary to complete AP1000 design certification rulemaking in FY 2006. Began ESBWR design certification application review.	Completed milestones necessary to complete ESBWR design certification.	Completed milestones necessary to support ESBWR design certification. Applicant proposed process adjustment in elimination of draft SER for ESBWR. Began AP 1000 amendment design certification application review.	Completed milestones necessary to support the ESBWR, EPR, US APWR design certifications and the AP1000 design certification amendment.		

Nuclear Reactor Safety

Review COI	applications on t	he schedules nego	otiated with the a	pplicants.		
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New Measure in FY 2006	Begin pre-COL application interactions with prospective COL applicants.	Continue pre-COL application interactions with prospective COL applicants.	Complete milestones associated with conducting 14 COL application reviews.	Complete milestones associated with conducting 20 COL application reviews.	Complete milestones associated with conducting 20 COL applications reviews, on schedule with budgeted resources.
Actual:		Staff has engaged in pre- application activities with potential COL applicants.	Staff engaged in pre- application activities with prospective COL applicants.	Completed milestones associated with conducting 14 COL application reviews.		

Combined Operating Licenses (COL):

Construction and Vendor Inspection Program: Performance and efficiency measures are under development.

Significant Accomplishments:

FY 2008: As of September 30, 2008, the NRC received 16 COL applications from the nuclear power industry for sites across the country. Of those applications received, 9 were accepted and docketed and are currently under review.

In FY 2008, the NRC published a major revision to 10 CFR Part 52 "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants." In addition, the NRC updated Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)," and issued a major revision to NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants."

In FY 2009, the NRC received an additional COL application, bringing the total to 17, and completed the acceptance reviews and docketing for 8 COLs. The technical and safety reviews of 17 COLs and 4 Design Certification applications continued, and Phase I of the EPR Design Certification review was completed. The NRC issued the final safety evaluation report for an Early Site Permit application and Limited Work Authorization request. the NRC also continued Construction Inspection readiness activities including holding a 2-day Vendor Oversight and New Reactor Construction workshop with over 600 participants, issuing "Guidance for ITAAC Closure Under 10 CFR Part 52," and development of construction program procedures and manuals.

Licensing Tasks

					FY 2010					
	FY 2008 FY 20 Enacted Enact			Request		Change from FY 2009				
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE		
Budget Authority b	Budget Authority by Program									
Program Support	\$150.5	642	\$167.1	666	\$166.3	665	-\$0.8	-1		
Infrastructure and Support	63.0	150	71.5	155	71.1	155	-0.4	-0		
Total	\$213.5	792	\$238.6	821	\$237.4	820	-\$1.2	-2		

LICENSING TASKS

Numbers may not add due to rounding.

Description:

The Licensing Tasks program supports licensing of the existing 104 civilian nuclear power reactors and 32 test and research reactors to ensure that they are operated in a manner that adequately protects public health and safety and the environment and to safeguard special nuclear materials used in reactors.

Licensing Tasks activities support achievement of the agency's strategic goals on Safety and Security. Activities include review and approval of applications to modify existing plants; review and approval of extended power uprate (EPU) applications; regulatory guides on fire protection and probabilistic risk assessment; maintenance of the Reactor Program System, which is critical to support inspections of the 104 operating nuclear power reactors; operator licensing; and research. This program also supports emergency plan and security plan reviews, and security generic licensing activities.

FY 2010 Activities:

The fiscal year (FY) 2010 budget request for the Licensing Tasks program includes resources to support the completion of an expected 950 licensing actions, including the review of 11 EPU applications and, the expected licensing activities associated with the transition of 15 reactor sites to the National Fire Protection Association (NFPA) Standard 805. Other activities include updating regulatory guides on fire protection and probabilistic risk assessment; 50 operator licensing examination sessions; one improved standard technical specifications (ISTS) conversion; as well as research activities, including materials performance, fire safety, digital instrumentation and control, analytical codes, and generic safety issues.

Changes from FY 2009 Enacted Budget:

Resources decrease primarily due to an anticipated decrease in the number of licensing actions. These decreases are partially offset by increases to support the following

Nuclear Reactor Safety activities:

- review of EPU applications, the expected licensing activities associated with the transition of reactor sites to the NFPA Standard 805, regulatory guides on fire protection, and probabilistic risk assessment
- research activities, including forward-looking research focused on the high-priority activities in the Long-Term Research Plan
- new application for Babcock and Wilcox (B&W) research and test reactor for the production of medical isotopes and fuel qualification support reviews of a new low-enriched uranium (LEU) fuel design for high power research and test reactors

Output Measures:

License Reviews:

Licensing actions completed per year.									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	Complete 1,500 licensing actions.	Complete 1,500 licensing actions.	Complete 1,500 licensing actions.	Complete 1,465 licensing actions.	Complete 1,150 licensing actions.	Complete 950 licensing actions.			
Actual:	1,609 completed.	1,659 completed.	1,542 completed.	1,054 completed.					

Age of licensing action inventory.*								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
Target:	$90\% \le 1$ yr. $100\% \le 2$ yrs.	$96\% \le 1 \text{ yr.}$ $100\% \le 2 \text{ yrs.}$	$96\% \le 1$ yr. $100\% \le 2$ yrs.	$96\% \le 1 \text{ yr.}$ $100\% \le 2 \text{ yrs.}$	$93\% \le 1 \text{ yr.}$ $100\% \le 2 \text{ yrs.}$	$90\% \le 1 \text{ yr.}$ $100\% \le 2 \text{ yrs.}$		
Actual:	$92.6\% \le 1 \text{ yr.}$ $99.9\% \le 2 \text{ yrs.}$	$97.6\% \le 1 \text{ yr.}$ $99.9\% \le 2 \text{ yrs.}$	$96.9\% \le 1$ yr. $100\% \le 2$ yrs.	94.6% ≤ 1 yr. 100% ≤ 2 yrs.				

* Excludes license renewal and improved standard technical specifications (iSTS) conversions. Also excludes license amendment requests that are unusually complex (e.g., power uprate applications), voluminous (e.g., conversions to Improved Technical Specifications), or novel (e.g., when a license amendment request depends upon a topical report that has not yet been approved), as well as "risk-informed" license amendments that are developed to an acceptable level

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Complete 500 other licensing tasks.	Complete 500 other licensing tasks.	Complete 500 other licensing tasks.	Complete 600 other licensing tasks.	Complete 600 other licensing tasks.	Complete 600 other licensing tasks.
Actual:	715 other licensing tasks completed.	676 other licensing tasks completed.	1,045 other licensing tasks completed.	678 other licensing tasks completed.		

Age of the G	Age of the Other Licensing Task Inventory.*									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	New Measure in	n FY 2008		$90\% \le 1$ yr. $100\% \le 2$ yrs.	90% ≤ 1 yr. 100% ≤ 2 yrs.	$90\% \le 1$ yr. $100\% \le 2$ yrs.				
Actual:				96.6% ≤ 1 yr. 100% ≤ 2 yrs.						
*Excludes n	*Excludes multi-plant actions (MPAs).									

Research:

Timeliness	Timeliness of completing actions on critical research programs.									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	85% of major milestones met on or before their due date.	85% of major milestones met on or before their due date.	85% of major milestones met on or before their due date.	90% of major milestones met on or before their due date.	90% of major milestones met on or before their due date.	90% of major milestones met on or before their due date.				
Actual:	81% across programs.*	96% across programs.	100% across programs.	100% across programs.						

Definition: 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.

*The target was not met as a result of unanticipated emerging work with priorities and schedules equivalent to existing critical research programs

Acceptable technical quality of agency research technical products.									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	New Measure in FY 2007		Combined score ≥ 3.0	Combined score ≥ 3.0	Combined score ≥ 3.5	Combined score ≥ 3.5			
Actual:			4.0	4.0					
NIDC 1	.1 1		1	and the dealers the					

NRC has developed a process to measure the quality of research products that includes surveying end-users to determine usability and value-added of the product, and feedback from the ACRS on research programs and products. As appropriate, other mechanisms will be developed and added to this process to measure the quality of research products.

Nuclear Reactor Safety

License	Exams:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Meet licensee demand estimated at 50 initial operator licensing examination sessions and 3 generic fundamentals examination sessions.	Meet licensee demand estimated at 50 initial operator licensing examination sessions and 4 generic fundamentals examination sessions.	Meet licensee demand estimated at 50 initial operator licensing examination sessions and 4 generic fundamentals examination sessions.	Meet licensee demand estimated at 50 initial operator licensing examination sessions and 4 generic fundamentals examination sessions.	Meet licensee demand estimated at 55 initial operator licensing examination sessions and 4 generic fundamentals examination sessions.	Meet licensee demand estimated at 55 initial operator licensing examination sessions and 4 generic fundamentals examination sessions.
Actual:	Met licensee demand at 52 initial operator licensing examination sessions and 4 generic fundamentals exam sessions.	Met licensee demand at 37 initial operator licensing examination sessions and 4 generic fundamentals exam sessions.	Met license demand at 51 initial operator licensing examination sessions and 4 generic fundamentals exam sessions.	Met demand at 50 initial operator licensing examination sessions and 4 generic fundamentals exam sessions.		

Significant Accomplishments:

As of the end of FY 2008, the NRC had completed an annual total of 1,054 reactor licensing actions. Timely completion of license amendments permitted implementation of technological advances to improve safety at operating power reactors. During FY 2008, the NRC also completed the reviews of 11 power uprate licensing actions, which safely added approximately 740 megawatts electric to the Nation's power grid. In FY 2008, the NRC completed the following activities at nonpower reactors: two fuel conversions – from high-enriched uranium (HEU) fuel to LEU fuel – in accordance with DOE's global mandate to minimize the proliferation of weapons of mass destruction; three license renewals; and one transfer from an operating license to a possession-only license in anticipation of decommissioning.

The NRC research program addressed key areas that support the agency's safety mission, including verification and validation of fire safety models for nuclear power plant applications, a proactive material degradation assessment of reactor system and pressure boundary components and their susceptibility to known and potential degradation mechanisms, and research to support the licensing of new digital instrumentation and control (I&C) systems.

Reactor License Renewal

					FY 2010				
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009		
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Budget Authority b	Budget Authority by Program								
Program Support	\$14.3	88	\$22.8	99	\$24.3	110	\$1.5	11	
Infrastructure and Support	8.2	20	10.4	23	11.5	25	1.0	2	
Total	\$22.5	108	\$33.2	122	\$35.7	135	\$2.5	13	

REACTOR LICENSE RENEWAL

Numbers may not add due to rounding.

Description:

As part of its responsibility to oversee the licenses of the 104 civilian nuclear power reactors, the NRC reviews license renewal applications to determine whether a reactor can continue to operate safely beyond its original 40-year operating life for up to an additional 20 years.

FY 2010 Activities:

In FY 2010, the Reactor License Renewal program will provide resources to support the review of 11 ongoing and 4 expected new license renewal applications, including associated license renewal regulatory framework and hearing support efforts. Resources also provide for the update of the license renewal regulatory framework, including revision for Generic Aging and Lessons Learned (GALL) and the generic environmental impact statement (GEIS); adjudicatory reviews, legal advice and representation, and license renewal training for new staff; update and maintenance of major regulatory documents for the license renewal review process; and the Government outreach program.

Changes from FY 2009 Enacted Budget:

Resource increases are due to the following activities:

- review of four new license renewal applications (three of which are expected to be complex) and other ongoing complex reviews from applications received in prior years
- license renewal regulatory framework development, including revisions to GALL and GEIS

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Complete major milestones for 4 applications.	Complete major milestones for 4 applications.	Complete major milestones for 3 applications.	Complete major milestones for 3 applications.	Complete major milestones for 4 applications.	Complete major milestones for 3 applications.
Actual:	Milestones completed for 4 applications.	Milestones completed for 4 applications.	Milestones completed for 3 applications.	Issued 2 renewed licenses; Completed SER and SEIS for 2 plants.		

FY 2010 Improvement Plan:

Implement an independent evaluation and improve performance measures.

Significant Accomplishments:

Since the license renewal program began, the NRC has reviewed and approved applications to renew or extend power reactor licenses (a total of 49 units at 27 sites) beyond their original 40-year operating life for up to an additional 20 years. The renewal activities help ensure continued safe operation of the Nation's power reactors beyond their initial 40-year license period. In FY 2008, the NRC issued a renewed license for the James A. FitzPatrick Nuclear Power Plant (NY), and completed the SER and the SEIS for the Wolf Creek Generating Station (KS) and the Shearon Harris Nuclear Power Plant (NC). The NRC also conducted safety and environmental reviews for nine additional renewal applications for a total of 12 sites.

International Activities

						FY 2	2010	
	FY 2008 Enacted		FY 2009 Enacted		Req	uest	Change from FY 2009	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority b	y Program							
Program Support	\$8.2	31	\$8.5	31	\$11.0	36	\$2.5	5
Infrastructure and Support	3.1	7	3.4	7	4.1	9	0.7	2
Total	\$11.2	38	\$11.9	38	\$15.1	45	\$3.2	7

INTERNATIONAL ACTIVITIES

Numbers may not add due to rounding.

Description:

The International Activities program supports NRC's participation in a wide range of programs to exchange information with counterparts in the international community and to enhance the safety and security of peaceful nuclear activities worldwide. Examples include high-level meetings focused on international nuclear regulatory policy formulation; the development of international consensus approaches for the safe and secure use of nuclear material; and activities to enhance domestic and global nuclear safety, both bilaterally and through multilateral organizations such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA).

FY 2010 Activities:

The FY 2010 budget request for the International Activities program includes resources to support the following: maintaining arrangements with the regulatory authorities of 40 countries and one area (Taiwan); negotiating and renewing three to six bilateral exchange arrangements between the NRC and appropriate foreign counterparts; supporting ongoing bilateral and multilateral efforts to exchange information on regulatory experience and expertise on construction, startup, and the operation of nuclear power plants; continuing efforts to enhance international security through its bilateral interactions for improving regulatory programs, and through participation in activities of multilateral organizations, such as IAEA and NEA.

Changes from FY 2009 Enacted Budget:

Resources increase primarily to support and participate in the IAEA Integrated Regulatory Review Service mission to review the NRC's operating power reactor program. Resources also support increased work with the IAEA, NEA and other international partners to develop effective mechanisms for responding to the anticipated projection that by 2020 as many as 20 to 25 countries that currently do not have nuclear power programs will embark upon developing such a program. In

Nuclear Reactor Safety

addition, the NRC is consulting with countries currently licensing the construction of new reactors and performing joint inspections of vendors in foreign countries. Through this effort the NRC will develop both long-term and short-term strategies to take advantage of other countries' experience and help ensure effective and efficient cooperation.

Significant Accomplishments:

Notable accomplishments in FY 2008 and FY 2009 in the area of international treaties and agreements include high-level NRC participation in the April 2008 Review Meeting of the Convention on Nuclear Safety and Commission review of U.S. Government Agreements for peaceful uses of nuclear energy with Turkey, Russia, India, and the United Arab Emirates. In the area of export/import licensing, in May 2008, the NRC participated in an IAEA meeting to share information on lessons learned from States' implementation of the Supplemental Guidance on Import and Export of Radioactive Sources. In the area of bilateral activities, the NRC concluded information exchange agreements with China (the first with that country to include intellectual property rights provisions) and with Vietnam. In 2008 the NRC also developed pilot new reactor licensing-related assistance projects to aid select countries of the Commonwealth of Independent States to establish the nuclear safety and security regulatory infrastructure needed for the design, construction, and operation of new nuclear power plants.

Operating Reactor Oversight

						FY 2	2010	
	FY 2 Enac		FY 2 Ena		Req	uest	Chang FY 2	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority b								
Program Support	\$139.5	838	\$145.3	837	\$150.9	842	\$5.6	6
Infrastructure and Support	99.8	238	91.5	207	91.2	199	-0.3	-8
Total	\$239.3	1,076	\$236.8	1,043	\$242.1	1,041	\$5.3	-3

OPERATING REACTOR OVERSIGHT

Numbers may not add due to rounding.

Description:

The activities of the Operating Reactor Oversight program support the agency's strategic goal on safety and security. The Operating Reactor Oversight program provides resources for inspection and performance assessment activities to ensure the early identification and resolution of issues at 104 power reactors and 32 test and research reactors that are licensed to operate. This is accomplished through risk-informed inspections, the use of performance indicator data, and the reactor assessment process that integrates the two. The NRC ensures reactor security through inspections and oversight to confirm the adequacy of nuclear reactor security in the current threat environment.

FY 2010 Activities:

FY 2010 funding supports baseline inspections that are performed routinely at reactors, plant-specific supplemental and reactive inspections, as well as generic issue inspections that address areas of emerging concern, including cyber security or areas requiring increased emphasis because of recurring problems.

FY 2010 resources also support performance-based evaluations of licensee security and Emergency Preparedness (EP) programs and assessment of the effectiveness of such programs. Approximately 24 force-on-force inspections are conducted each year to accomplish one complete round of inspections at all power reactors within a 3-year cycle. In addition to inspection activities, licensee EP programs are evaluated during biennial exercises that include assessments of off site response activities by the Federal Emergency Management Agency (FEMA). In addition, resources support investigation of allegations of wrongdoing; enforcement efforts deter noncompliance with NRC requirements and encourage prompt identification and correction of violations; research work related to the collection and analysis of industry data to identify trends; ongoing support for the significance determination process used to evaluate the potential risk significance of inspection findings and trending support; and provide support for the

evaluation of cross-cutting issues in the areas of human performance and safety culture.

Changes from FY 2009 Enacted Budget:

Resources increase primarily to support the following activities:

- Increased enforcement and allegation work resulting from plant performance as determined from inspection findings, power plant performance indicators, and the resulting position of plants in the Action Matrix. The Action Matrix tracks the overall plant performance, which is updated regularly to reflect information from the most recent performance indicators and inspection findings.
- Replacement of multiple integrated laser engagement system (MILES) equipment for the force-on-force program and associated travel.

Output Measures:

Reactor Inspections:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	All required baseline inspection procedures are completed at 103 operating reactors.*	All required baseline inspection procedures are completed at 103 operating reactors.*	All required baseline inspection procedures are completed at 103 operating reactors.*	All required baseline inspection procedures are completed at 104 operating reactors.	All required baseline inspection procedures are completed at 104 operating reactors.	All required baseline inspection procedures are completed at 104 operating reactors.
Actual:	Completed at all reactors.	Completed at all reactors.	Completed at all reactors.	Completed at all reactors in CY 2008.		

*Does not include Brown's Ferry Unit 1, which restarted in 2007. The Reactor Oversight Program (ROP) inspection program is implemented on a calendar-year (CY) basis; therefore, the baseline inspection program was not fully implemented in CY 2007 for Browns Ferry 1. The baseline inspection program will be completed at 104 operating reactors, including Browns Ferry 1, in CY 2008. With the addition of Browns Ferry 1, the metric changes to 104 operating reactors.

Percentage of Final Significance Determination Process determinations made within 90 days for all potentially greater than green findings.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	85%	90%	90%	90%	90%	90%
Actual:	50%	92%	100%	100%		

Time to c	omplete reviews of	technical allegati	ons.	<u>.</u>		
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	70% of technical allegations closed within 150 days, 90% within 180 days, and 100% within 360 days.	70% of technical allegations closed within 150 days, 90% within 180 days, and 100% within 360 days.	70% of technical allegations closed within 150 days, 90% within 180 days, and 100% within 360 days.	80% of technical allegations closed within 150 days, 90% within 180 days, and 100% within 360 days.	90% of technical allegations closed within 150 days, 95% within 180 days, and 100% within 360 days.	90% of technical allegations closed within 150 days, 95% within 180 days, and 100% within 360 days.
Actual:	93% closed within 150 days. 97% within 180 days. 99% within 360 days.*	93% closed within 150 days. 98% within 180 days. 100% within 360 days.	93% closed within 150 days. 97% within 180 days. 99% within 360 days.	93% in less than 150 days. 98% in less than 180 days. 100% in less than 360 days.		

Timeliness	in completing enf	orcement actions.				
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Investigation	Investigation	Investigation	Investigation	Investigation	Investigation
	cases:	cases:	cases:	cases:	cases:	cases:
	100%	100%	100%	100%	100%	100%
	completed	completed	completed	completed	completed	completed
	within 360	within 360	within 360	within 360	within 360	within 360
	days of OE	days of OE	days of OE	days of OE	days of OE	days of OE
	processing	processing	processing	processing	processing	processing
	time.	time.	time.	time.	time.	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	completed	completed	completed	completed	completed
	within 180	within 180	within 180	within 180	within 180	within 180
	days of OE	days of OE	days of OE	days of OE	days of OE	days of OE
	processing	processing	processing	processing	processing	processing
	time.	time.	time.	time.	time	time
Actual:	Investigation:	Investigation:	Investigation:	Investigation:		
	None ≥ 360	None ≥ 360	None ≥ 360	One ≥ 360		
	days	days	days	days		
	Non-	Non-	Non-	Non-		
	Investigation:	Investigation:	Investigation:	Investigation:		
	none ≥ 180	none ≥ 180	none ≥ 180	none ≥ 180		
	days	days	days	days		

A. Cases involving investigations normally involve wrongdoing including discrimination and by their nature are more resource intensive and less timely. Accordingly, the performance measure 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 FOIA requests.

Nuclear Reactor Safety

Investigations:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.*	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	80% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 9 months or less
Actual:	Completed 84 reactor cases, in which 72.6% (61) developed sufficient information to reach a conclusion regarding wrongdoing were completed in 10 months or less.	Completed 110 investigations in which 80% (88) developed sufficient information to reach a conclusion regarding wrongdoing were completed in 10 months or less.	Completed 70 investigations in which 95.7% (67) developed sufficient information to reach a conclusion regarding wrongdoing were completed in 10 months or less.	Completed 77 investigations in which 92.2% (71) developed sufficient information to reach a conclusion regarding wrongdoing were completed in 10 months or less.		

Timeliness	in completing inv	estigations - Targ	et 2.			
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:			Close 100% of OI investigations in time to initiate civil and/ or criminal enforcement action.	Close 100% of OI investigations in time to initiate civil and/ or criminal enforcement action.	Close 100% of OI investigations in time to initiate civil and/ or criminal enforcement action.	Close 100% of OI investigations in time to initiate civil and/ or criminal enforcement action.
Actual:			Closed 100% (99) of OI investigations in time to initiate civil and/ or criminal enforcement action.	Closed 100% of OI investigations in time to initiate civil and/ or criminal enforcement action.		

Efficiency: Measure under development.

FY 2010 Improvement Plan:

Implement an independent evaluation and improve performance measures.

Significant Accomplishments:

In FY 2008, the Nation's nuclear power plants were operated within NRC safety and security requirements. The performance measures for the Safety goal document that no operating plants were at an unacceptable level. In addition, the safety indicators for nuclear plants as a whole showed no adverse trends. More than 99 percent of plant safety indicators were rated green in FY 2008.

In FY 2008, the agency completed 24 force-on-force inspections and submitted its third annual Report to Congress on the results of the security inspection program. The staff coordinated with licensees and other federal agencies to conduct voluntary EP, hostile action-based scenarios. The NRC's extensive and proactive reactor oversight program helped industry obtain improved safety and security margins at reactor facilities. NRC's OI devoted significant investigative effort to allegations of multiple incidents of security officer inattentiveness at the Peach Bottom Atomic Station. As a result of the investigative findings, the NRC staff issued a Severity Level III Notice of Violation and a civil penalty in the amount of \$65,000 to Exelon Nuclear for the violation of NRC regulatory requirements.

The NRC also completed a series of security enhancement inspections at power reactors that were in response to the terrorist events of September 11, 2001. The NRC had completed inspections all the nuclear power plant. As a result of an aggressive inspection schedule by the end of CY 2008.

Incident Response

						FY 2	2010	
	FY 2 Enac		FY 2 Enac		Request		Change fro FY 2009	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority b	y Program							
Program Support	\$12.9	56	\$16.0	53	\$13.4	54	-\$2.5	1
Infrastructure and Support	6.7	16	8.3	18	7.7	17	-0.6	-1
Total	\$19.6	72	\$24.3	71	\$21.1	71	-\$3.2	-0

INCIDENT RESPONSE

Numbers may not add due to rounding.

Description:

The Incident Response program conducts both the reactor Emergency Preparedness (EP) inspection activities and incident response program preparedness functions, as well as implements agency incident response actions to ensure proper readiness and response in the current threat environment. It also provides for resolution of associated policy and program issues.

FY 2010 Activities:

The FY 2010 budget provides resources for ongoing activities. In FY 2010 the program will support agency incident response programs; 24/7 telecommunications with licensees, federal agencies, and other stakeholders; policy oversight and support for region baseline EP inspections; and preparation and participation by headquarters and regional offices in radiological and interagency emergency response exercises. Resources also continue support the agency's continuity programs

The Incident Response program also provides Headquarters and regional support to work closely with other federal agencies to maintain incident response capability under the National Response Framework and National Incident Management System; to maintain a highly effective response capability; and to ensure a coordinated response to natural disasters that affect regulated nuclear facilities, technological failures, or terrorist events. Resources also support various systems that are a critical part of the NRC's incident response support, such as the Operations Center Information Management System that provides the primary communication infrastructure to support the agency's incident response program.

Changes from FY 2009 Enacted Budget:

Resources decrease due to completion of the first time purchase and replenishment of the potassium iodide (KI) supply. KI tablets are given to individuals who live near nuclear reactors. In the event of certain reactor emergencies, radioactive iodine-131 can be released. When taken, the KI tablets saturate the thyroid gland with stable iodine and can prevent the radioactive iodine-131 from damaging an individuals thyroid.

Output Measures:

Emergency Response Performance Index.*										
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	99%	99%	99%	100%	100%	100%				
Actual:	100%	100%	100%	100%						
safety or security em	*This performance index provides a single overall performance measure of the agency's readiness to respond to a safety or security 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.									

Efficiency: Measure under development.

Significant Accomplishments:

In FY 2008, the NRC Operations Center monitored 14 licensee incidents and provided support and assistance to regional response efforts. Notable events included Hurricane Ike's effects on licensees in the Southwest and Midwest, and electrical power grid outages in the Southeast.

The NRC participated in seven incident response exercises, including an unannounced exercise with a power reactor, a fuel cycle facility exercise, and a pandemic tabletop exercise. The NRC regions performed 197 EP baseline inspections in FY 2008. The NRC headquarters staff directly supported selected regional inspections and participated in the review of each significant EP finding.

In FY 2009 NRC will complete the communication systems upgrades required by NCSD-3-10, NRC Operations Center human factors- related facility modifications, and information exchange technological upgrades used to communicate response information among licensee, State/local, and regional organizations.

NUCLEAR MATERIALS AND WASTE SAFETY



Nuclear Materials and Waste Safety

The U.S. Nuclear Regulatory Commission (NRC) Nuclear Materials and Waste Safety program protects the health and safety of the public and the environment by ensuring the secure use and management of radioactive materials. The program implements the agency's regulatory processes and related activities in the following subprograms: Fuel Facilities, Nuclear Materials Users, Decommissioning and Low-Level Waste, Spent Fuel Storage and Transportation, and High-Level Waste Repository. These subprograms are listed in the table below and described in more detail in the following sections. All funding amounts shown are for full cost, reflecting allocation of the agency's infrastructure and support cost.

						FY 2	2010		
		FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009	
Summary	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Budget Authority by Program									
Program Support	\$31.8		\$62.2		\$68.6		\$6.4		
Program Salaries & Benefits	91.0	649	105.5	713	113.6	752	8.1	39	
Subtotal Program ¹	122.9	649	167.7	713	182.2	752	14.5	39	
Infrastructure and Support	36.9	121	54.6	162	53.0	172	-1.6	10	
Infrastructure and Support Salaries & Benefits	17.0		24.0		26.0		2.0		
Subtotal Program	53.9	121	78.6	162	79.0	172	0.4	10	
Total	\$176.8	770	\$246.3	875	\$261.2	924	\$14.8	49	

BUDGET OVERVIEW

Numbers may not add due to rounding.

BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY PROGRAM

						FY 2	2010	
	FY 2 Enac		FY 2009 Enacted		Request		Change from FY 2009	
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Fuel Facilities	\$35.0	159	\$48.3	192	\$49.5	196	\$1.2	4
Nuclear Materials Users	57.4	270	85.5	332	90.6	337	5.1	4
Decommissioning and Low-Level Waste	28.2	127	37.5	145	37.3	153	-0.2	8
Spent Fuel Storage and Transportation	27.2	109	26.1	104	27.8	111	1.7	8
Subtotal	147.7	665	197.3	773	205.2	796	7.8	23
High-Level Waste Repository ¹	29.0	105	49.0	102	56.0	128	7.0	26
Total	\$176.8	770	\$246.3	875	\$261.2	924	\$14.8	49

Numbers may not add due to rounding.

Fuel Facilities

						FY 2	2010	
	FY 2 Enac		FY 2 Ena		Req	uest	Chang FY 2	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program	· · · · · · · · · · · · · · · · · · ·							
Program Support	\$22.3	129	\$30.8	154	\$31.4	156	\$0.6	2
Infrastructure and Support	12.7	30	17.4	38	18.1	39	0.7	2
Total	\$35.0	159	\$48.3	192	\$49.5	196	\$1.2	4

FUEL FACILITIES

Numbers may not add due to rounding.

Description:

The Fuel Facilities program performs licensing, certification, inspection, environmental reviews, research, adjudicatory, enforcement, allegation, and other regulatory activities associated with fuel facilities, including conversion, enrichment, and fuel fabrication to ensure adequate safety and safeguards. The Fuel Facilities program supports achievement of NRC's strategic goals on safety and security through its regulatory activities, homeland security-related physical protection and materials accountability work, and other efforts to mitigate potential vulnerabilities.

FY 2010 Activities:

FY 2010 funding supports ongoing licensing, inspection, and enforcement related to 20 licensed fuel facilities. Resources also support the identification and resolution of safety and safeguards issues and direct the NRC's security-related activities to include physical protection, material control and accounting, and security enhancements. Resources also support rulemakings, development of regulatory infrastructure, and the implementation of regulatory requirements.

In FY 2010 the program will continue the AREVA and GE-Hitachi enrichment facility and Mixed Oxide Fuel Fabrication Facility (MOX facility) licensing reviews. The enrichment facility reviews are being performed on a 33-month schedule unless otherwise directed by the Commission. The MOX facility is being constructed under a construction authorization issued in 2006. The review of the application for a license to operate the MOX facility will continue through FY 2010. In FY 2010 three major fuel cycle facilities continue in the construction phase and the program will continue to conduct inspections. The construction inspection activities associated with these new facilities will be prioritized, with priority given to those applicants furthest along in the licensing and/or construction process.

Changes from FY 2009 Enacted Budget:

Resources increase to support licensing amendments and renewals for existing fuel fabrication facilities.

Output Measures:

Licensing Activities:

Number of fuel cycle licensing actions (amendments, renewals, new applications, and reviews) from the date of acceptance completed per year.

1	1 1 7					
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in FY 2006	Complete 53 licensing actions.	Complete 52 licensing actions.	Complete 53 licensing actions.	Complete 53 licensing actions.	Measure dis- continued after FY 2009
Actual:		64 completed	92 completed	85 completed		
Output me	easure excludes lic	ensing actions inv	olved in a hearing	g		

Inspection Activities:

Safety and safeguards inspection modules. Complete all core and reactive inspection modules as scheduled in Fuel Cycle Master Inspection Plan.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in FY 2006	Complete 165 inspection modules.	Complete 218 inspection modules.	Complete 266 inspection modules.	Complete 286 inspection modules.	Complete 286 inspection modules.
Actual:		Completed 202 inspection modules.	Completed 306 inspection modules.	Completed 269 inspection modules.		

Timeliness of Safety and Safeguards inspection modules. Complete core inspection modules as scheduled in Fuel Cycle Master Inspection Plan.

5	1					
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	> 90% complet- ed on time.	> 90% complet- ed on time.	> 93% complet- ed on time.	> 97% complet- ed on time.	> 97% complet- ed on time.	> 97% complet- ed on time.
Actual:	100% com- pleted on time. (Completed 93 inspections/ 178 modules).	99% com- pleted on time. (Completed 100 inspec- tions/ 202 modules).	100% complet- ed on time.	100% complet- ed on time.		

In FY 2005, NRC began tracking modules completed rather than inspections conducted because it is a better performance measure and modules focus on specific areas (e.g., chemical, nuclear criticality safety, material control and accounting, physical security, etc.) rather than reporting on site visits. In the above table, both the number of inspections and the number of modules are shown for FY 2005-FY 2006. Beginning in FY 2007, only modules are recorded in the table.

Nuclear Materials and Waste Safety

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in FY 2006	$70\% \le 150$ days $90\% \le 180$ days $100\% \le 360$ days	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	$80\% \le 150$ days $90\% \le 180$ days $100\% \le 360$ days	$90\% \le 150$ days $95\% \le 180$ days $100\% \le 360$ days	90% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days
Actual:		93% ≤ 150 days. 100% ≤ 180 days. 100% ≤ 360 days	100% ≤ 150 days. 100% ≤ 180 days. 100% ≤ 360 days	100% < 150 days. 100% < 180 days. 100% < 360 days.		

Enforcement:

FY 2010 Improvement Plans:

Develop improved performance measures.

Significant Accomplishments:

In 2008 the agency completed a transfer of license ownership from General Electric to General Electric-Hitachi and an amendment to allow for testing a new enrichment process. The NRC completed the integrated safety analysis (ISA) summary and environmental reviews for Areva Richland and Global Nuclear Fuels-America. The NRC also completed a review of the annual ISA updates for 10 fuel facilities.

In 2009 the program initiated the review of the AREVA uranium enrichment facility license application and initiated the review of the GE-Hitachi environmental report. NRC anticipates GE-Hitachi will submit its license application later in the 2009 fiscal year.

The program completed a 40-year license renewal for the Areva Richland fuel fabrication facility, completed a regulatory gap analysis for spent fuel reprocessing, completed license transfers from BWXT to B&WNOG, and from Nuclear Fuel Services to B&WNOG, and completed recertification of the two gaseous diffusion plants.

Nuclear Materials Users

						FY 2	2010	
	FY 2 Ena		FY 2 Ena		Req	uest	Chang FY 2	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$45.1	240	\$56.9	270	\$62.2	275	\$5.3	5
Infrastructure and Support	12.3	29	28.6	62	28.4	62	-0.2	(0)
Total	\$57.4	270	\$85.5	332	\$90.6	337	\$5.1	4

NUCLEAR MATERIALS USERS

Numbers may not add due to rounding.

Description:

The Nuclear Materials Users program provides for licensing, inspection, event evaluation, research, incident response, allegation, enforcement, and rulemaking activities to maintain the regulatory safety and security infrastructure needed to process and handle nuclear materials. Regulated nuclear materials and nuclear materials users include large and small users of nuclear material for industrial, medical, or academic purposes such as radiographers, hospitals, private physicians, nuclear gauge users, and universities. Defense-related nuclear materials are not covered by this program. The Nuclear Materials Users program supports achievement of NRC's strategic goals on safety and security through issuance of licenses, inspecting licensees, taking appropriate enforcement actions and tracking of risk-significant radioactive sources.

FY 2010 Activities:

In FY 2010, ongoing program activities will include conducting inspections of increased controls at materials facilities, security inspections of irradiators, manufacturers and distributors, radioactive materials in quantities of concern, prelicensing inspections of new materials applicants, and other ongoing activities. Other activities include completing reviews and issuing 150-200 NRC import/export authorizations, conducting materials related wrongdoing investigations, supporting adjudicatory hearings for materials licensing and enforcement proceedings, and offering new NRC employee and Agreement State Staff technical training for licensing and inspection. Specific FY 2010 actions include completion of approximately 2,300 materials licensing actions and 1,220 routine health and safety inspections, and security inspections of Agreement State licensees. NRC will also conduct approximately 20-25 active materials and waste rulemakings.

The NRC will also continue materials activities related to Agreement States and liaison with all States, including oversight, technical assistance, regulatory development, and cooperative efforts as well as provide funding to support the cost of Agreement State staff training, including associated travel costs. Resources will be used to conduct

Nuclear Materials and Waste Safety

the 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, Native American Tribal organizations, and interstate organizations in matters related to homeland security for nuclear waste and materials.

Resources will also support the implementation of the Web-Based Licensing (WBL) System and further improvements and centralized oversight of information technology and information management as well as security activities, including the continued implementation of a national registry (i.e., the National Source Tracking System (NSTS)) of radioactive sources of concern to improve controls on risk-significant radioactive materials to prevent their malevolent use. In addition, resources will support infrastructure revisions to integrate and address potential security vulnerabilities identified by the Government Accountability Office (GAO) and the National Academy of Sciences (NAS).

Changes from FY 2009 Enacted Budget:

Resources increase to support the following activities:

- Contract support increases to reflect the transfer of funding responsibility for tokens and credential costs for the WBL and NSTS systems.
- Resources increase to support the development of reliability analysis tools for byproduct materials, which will support risk-informing the nuclear materials regulatory process.
- Resources increase to support increased enforcement and allegation workload as well as increased use of alternative dispute resolution.

Output Measures:

Licensing:

Percentage	Percentage of Materials and Waste rulemaking activities completed on schedule.								
	FY 2005	FY 2006	FY 2009	FY 2010					
Target:	New measure in	FY 2009	90%	90%					
Actual:									
	•								

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	85% ≤ 90 days 100% ≤ 1 yr.	90% ≤ 90 days 100% ≤ 1 yr.	92% ≤ 90 days 100% ≤ 1 yr.	$80\% \le 90 \text{ days}$ $100\% \le 2 \text{ yrs.}$	85% ≤ 90 days 100% ≤ 2 yrs.	$90\% \le 90 \text{ days}$ $100\% \le 2 \text{ yrs.}$
Actual:	$97\% \le 90$ days (2,568 of 2,641) $99.9\% \le 1$ yr. (2,638 of 2,641)	98% ≤ 90 days (2,661 of 2,703) 100% ≤ 1 yr. (2,703 of 2,703)	98% ≤ 90 days (2,520 of 2,577) 99.8% ≤ 1 yr. (2,575 of 2,577)	98% ≤ 90 days (2,740 of 2,800) 100% ≤ 2 yrs. (2,800 of 2,800)		

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	$85\% \le 180$ days $100\% \le 2$ yrs.	$90\% \le 180$ days $100\% \le 2$ yrs.	$92\% \le 180$ days $100\% \le 2$ yrs.	80% ≤ 180 days 100% ≤ 2yrs.	80% ≤ 180 days 100% ≤ 2 yrs.	90% ≤ 180 days 100% ≤ 2 yrs.
Actual:	$96\% \le 180$ days (608 of 633) $100\% \le 2$ yrs. (633 of 633)	$94\% \le 180$ days (309 of 329) $100\% \le 2$ yrs. (329 of 329)	$98\% \le 180$ days (109 of 111) $100\% \le 2$ yrs. (111 of 111)	94% ≤ 180 days (118 of 126) 100% ≤2 yrs. (126 of 126)		

Inspection:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	> 90% complet- ed on time.	> 90% complet- ed on time.	> 90% complet- ed on time.	> 95% complet- ed on time.	> 98% complet- ed on time.	> 98% complet- ed on time.
Actual:	99% completed on time (com- pleted approxi- mately 1,300).	99% completed on time (com- pleted approxi- mately 1,152).	99% completed on time (com- pleted approxi- mately 1,225).	99% completed on time (com- pleted approxi- mately 1,229).		

Nuclear Materials and Waste Safety

Timelines	s in completing rev	views for technical	l allegations.			
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360$ days	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	80% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	$90\% \le 150 \text{ days}$ $95\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	90% ≤ 150 days 95% ≤ 180 days 100% ≤ 360 days
Actual:	$96\% \le 150 \text{ days}$ $99\% \le 180 \text{ days}.$ $100\% \le 360 \text{ days}$	96% ≤ 150 days 100% ≤ 180 days. 100% ≤ 360 days	90% ≤ 150 days 99% ≤ 180 days. 100% ≤ 360 days	92% in less than 150 days. 95% in less than 180 days. 98% in less than 360 days.		

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in FY 2006	Investigation cases: 100% com- pleted within 360 days of OE processing time. Non-Investiga- tion cases: 100% com- pleted within 180 days of OE processing time.	Investigation cases: 100% com- pleted within 360 days of OE processing time. Non-Investiga- tion cases: 100% com- pleted within 180 days of OE processing time.	Investigation cases: 100% com- pleted within 360 days of OE processing time. Non-Investiga- tion cases: 100% com- pleted within 180 days of OE processing time.	Investigation cases: 100% com- pleted within 360 days of OE processing time. Non-Investiga- tion cases: 100% com- pleted within 180 days of OE processing time.	Investigation cases: 100% com- pleted within 360 days of OE processing time. Non-Investiga- tion cases: 100% com- pleted within 180 days of OE processing time.
Actual:	-	Investigation: None ≥ 360 days Non-Investiga- tions: None ≥ 180 days	Investigation: None ≥ 360 days Non-Investiga- tions: None ≥ 180 days	Investigation: None ≥ 360 days Non-Investiga- tions: None ≥ 180 days		

Timeliness in completing investigations - Target 1.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
Target:	80% of investi- gations which developed sufficient information to reach a conclu- sion regarding wrongdoing will be com- pleted in 10 months or less.	80% of investi- gations which developed sufficient information to reach a conclu- sion regarding wrongdoing will be com- pleted in 10 months or less.	85% of investi- gations which developed sufficient information to reach a conclu- sion regarding wrongdoing will be com- pleted in 10 months or less.	85% of investi- gations which developed sufficient information to reach a conclu- sion regarding wrongdoing will be com- pleted in 10 months or less.	85% of investi- gations which developed sufficient information to reach a conclu- sion regarding wrongdoing will be com- pleted in 10 months or less.	85% of investi gations which developed sufficient information to reach a conclu sion regarding wrongdo- ing will be completed in 9 months or less		
Actual:	Completed 45 investigations in which 75.6% (34) developed sufficient information to reach a conclu- sion regarding wrongdoing in 10 months or less.	Completed 49 investigations in which 83.7% (41) developed sufficient information to reach a conclu- sion regarding wrongdoing in 10 months or less.	Completed 26 investigations in which 96.2% (25) developed sufficient information to reach a conclu- sion regarding wrongdoing were com- pleted in 10 months or less.	Completed 100% of investigations which devel- oped sufficient information to reach a conclu- sion regarding wrongdoing were com- pleted in 10 months or less.				

Investigations:

Timeliness in completing investigations - Target 2.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
Target:	New measure in	FY 2007	Close 100% of OI investiga- tions in time to initiate civil and/or crimi- nal enforce- ment action.	Close 100% of OI investiga- tions in time to initiate civil and/or crimi- nal enforce- ment action.	Close 100% of OI investiga- tions in time to initiate civil and/or crimi- nal enforce- ment action.	Close 100% of OI investiga- tions in time to initiate civil and/or crimi- nal enforce- ment action.		
Actual:			Closed 100% (99) of OI investigations in time to initi- ate civil and/ or criminal enforcement action.	Closed 100% of OI investiga- tions in time to initiate civil and/or crimi- nal enforce- ment action.				

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Issuance of	of NRC import/exp	port authorization	s.			
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Complete reviews for and issue as appropriate, approximately 85-125 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for 100% of the cases within 60 days.	Complete reviews for, and issue as appropriate, 160-225 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for 100% of the cases within 60 days.	Complete reviews for, and issue as appropriate, 160-225 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for 100% of the cases within 60 days.	Complete reviews for, and issue as appropriate, 150-200 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for 100% of the cases within 60 days.	Complete reviews for, and issue as appropriate, 150-200 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for 100% of the cases within 60 days.	Complete reviews for, and issue as appropriate, 150-200 NRC import/export authorizations (NRC licenses or amend- ments). Staff reviews will be completed for >95% of the cases within 60 days.
Actual:	Completed 98 staff reviews. 100% were completed within 60 days.	Completed 152 staff reviews. 100% were completed within 60 days.	Completed 153 staff reviews. 97% were com- pleted within 60 days.	Completed 136 staff reviews. 95% were com- pleted within 60 days.		

Import/Export Authorizations:

FY 2010 Improvement Plans:

Implement an independent evaluation and improve performance measures.

Significant Accomplishments:

In FY 2008, the NRC completed reviews of 2,926 materials licensing actions and 1,229 materials program inspections. From 2003 through 2008, the NRC has maintained the timeliness of its reviews of nuclear materials license renewals and sealed source and device designs. In addition, the NRC completed 94 percent of the requests for license renewal and sealed source and device design reviews within 180 days of receipt, and 98 percent of new applications and license amendments within 90 days. Pennsylvania became the 35th Agreement State on March 31, 2008, taking over regulatory responsibility for approximately 650 materials licensees. In FY 2008, the NRC also completed several high priority rules and addressed four petitions for rulemaking. In addition, the NRC also conducted public outreach activities and meetings to make the regulatory process accessible to interested stakeholders.

In FY 2009, the National Source Tracking System, a centralized national registry that provides lifetime accounting of certain high-risk radioactive materials used in industry,

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medicine, and research, was deployed. Licensees were required to begin using the system by January 31, 2009. Virginia became an Agreement State on March 31, 2009. New Jersey is scheduled to become an Agreement state on September 30, 2009. These two new Agreement states will take over regulatory responsibility for approximately 800 materials licensees. The program also expects to complete 2900 materials licensing actions and 1200 routine health and safety inspections.

Decommissioning and Low-Level Waste

					FY 2010				
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009		
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Budget Authority by Program	· · · · · · · · · · · · · · · · · · ·						. <u> </u>		
Program Support	\$18.8	105	\$24.9	118	\$25.1	126	\$0.2	9	
Infrastructure and Support	9.3	22	12.6	27	12.2	27	-0.4	(1)	
Total	\$28.2	127	\$37.5	145	\$37.3	153	-\$0.2	8	

DECOMMISSIONING AND LOW-LEVEL WASTE

Numbers may not add due to rounding.

Description:

The Decommissioning and Low-Level Waste program supports the regulation and oversight of low-level waste. The program also provides project management and technical and environmental reviews for uranium recovery licensing activities, decommissioning of power reactors, research and test reactors, and complex materials sites, as well as supports the interfaces with the NRC's licensees and other stakeholders. This program supports achievement of NRC's strategic goals on safety and security through issuance of licenses, inspecting licensees, and taking appropriate enforcement actions.

FY 2010 Activities:

FY 2010 resources support uranium recovery project management and licensing, including hearings. Resources specifically support 6 environmental reviews (environmental assessments or environmental impact statements) and 11 safety reviews for uranium recovery facility applications. Resources support the management of approximately 70 complex materials, power reactor, research and test reactor, and inactive uranium recovery facilities undergoing decommissioning, including termination of up to three sites. Resources are also provided for low-level waste activities, including on-site disposal, the review of international experience, guidance development, and import/export reviews.

The NRC's FY 2010 budget also includes resources to provide oversight of certain U.S. Department of Energy (DOE) waste determination activities and plans consistent with the NRC's responsibilities in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005. This act requires the DOE to consult with the NRC on its waste-incidental-to-reprocessing determinations for facilities in South Carolina and Idaho.

This program will also continue to support research activities to provide technical

analysis for assessing public exposure to environmental releases of radioactive materials using readily available data and tools and the technical basis for rulemakings associated with radiological environmental contamination.

Changes from FY 2009 Enacted Budget:

Shifts within the program total include:

- Funding for assessment of dose-environmental contaminants was reduced because of higher priority NRC activities.
- Resources were reallocated to support the uranium recovery legal and program infrastructure workload.

Output Measures:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Complete 1 final EIS and 1 draft EIS.*	Complete 1 final EIS and 1 draft EIS.*	Complete 1 fi- nal EIS or draft EIS.* Complete 3 complex EAs.	Complete 2 final EISs or draft EISs. *Complete 3 complex EAs.	Complete 1 fi- nal EIS or draft EIS.* Complete 3 complex EAs.	Complete 2 draft or final EISs*. Com- plete 2 complex EAs.
Actual:	Completed 2 Final EIS (LES, MOX) and 2 draft EIS (USEC, DEIS for controlling the disposition of solid materi- als rulemaking)	Completed 1 Final EIS (USEC), completed comments as a cooperating agency on the draft West Val- ley EIS.	Completed the draft Sequoyah Fuels Corp EIS and provided comments as a cooperating agency on the preliminary final draft West Valley EIS. Completed 3 EAs (NARM Rulemaking, Westing- house License Renewal EA and the Rancho Seco EA.)	Completed the final EIS for Sequoyah Fuels Corp. and the draft Generic EIS for In Situ Ura- nium Recovery Facilities. No complex EAs completed because there were none to complete in FY2008.		

*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.

Eliminate the need for an environmental assessment for certain decommissioning licensing actions by incorporating them by rule as actions that only require a categorical exclusion. Supported by decommissioning licensing/ environmental reviews.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	New Measure in	FY 2009			Support preparation of final Categori- cal Exclusion Rulemaking.*	This measure is discontinued in FY 2010.			
Actual:									
*Effective	Effective when categorical exclusion rule finalized, expected by December 2009.								

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
°arget:	Develop a risk- informed, grad- ed approach to prioritize and manage decom- missioning licensing and inspection. Complete high priority licens- ing actions as scheduled in the Decommis- sioning Operat- ing Plan.*	Complete final guidance to address issues identified in the license termina- tion rule analy- sis and provide risk-informed approaches for restricted use, more realistic scenarios, and preventing future legacy sites. Complete high- priority licens- ing actions as scheduled in the Decommis- sioning Operat- ing Plan.	Complete li- censing actions as scheduled in the Decommis- sioning Operat- ing Plan. Conduct PART for the Decom- missioning and Low-Level Waste pro- gram. Complete pro- posed rule to prevent future legacy sites.	Complete de- commissioning and uranium recovery licens- ing actions as scheduled in the Decommis- sioning Operat- ing Plan. Complete final rule to prevent future legacy sites.	Complete de- commissioning and uranium recovery licens- ing actions as scheduled in the Decommis- sioning Operat- ing Plan.	Complete li- censing action consistent with the timeliness metric in the Decommissior ing Operating Plan.
Actual:	Developed a risk-informed, graded ap- proach to prioritize and manage decom- missioning licensing and inspection. Completed decommission- ing at 8 sites; approved 6 decommission- ing / License Termination Plans, and ap- proved 4 final site radiation surveys.	Completed revision to NUREG-1757 Volumes 1 and 2 to incorporate decommission- ing lessons- learned and is- sues identified in the license termination rule analysis and included risk-informed approach for restricted use, more realistic scenarios, and guidance for preventing future legacy sites. Completed decommission- ing at 7 sites.	Completed pro- posed rule to prevent future legacy sites. Conducted PART for the DLLW Pro- gram; program rated 'effec- tive" by OMB. Completed decommission- ing at 11 sites.	Completed decommission- ing at 8 sites. Completed 2 uranium recov- ery licensing actions.		

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in FY 2006	Complete 2 WIR reviews	Complete 2 WIR Monitor- ing Plans. Complete the draft Final WIR Standard Review Plan (SRP). Complete resolution of 2 WIR generic technical and policy issues identified in FY 2006.	Complete mon- itoring activi- ties as sched- uled in the Environmental Protection and Performance Assessment Operating Plan. Complete resolution of 2 WIR generic technical and policy issues identified in FY 2006.	Complete WIR review or monitoring plan/activities as scheduled in the Envi- ronmental Protection and Performance Assessment Operating Plan.	Complete WIR review or monitoring plan/activities as scheduled in the Envi- ronmental Protection and Performance Assessment Operating Plan.
Actual:		Met Target.*	Completed 2 WIR Monitor- ing Plans (INL and SRS) Issued the Draft Final WIR SRP (NUREG- 1854) Completed resolution of 2 WIR generic technical and policy issues.	Completed 4 WIR Monitor- ing visits and issued 4 WIR Monitoring Reports. Completed resolution of 7 WIR generic technical and policy issues identified in FY 2006.		

*Completed technical review for Saltstone Disposal Facility Waste Determination in November 2005 and issued the Technical Evaluation report in December 2005, and completed technical review of the Idaho National Laboratory Tank Farm Facility Waste Determination in September 2006 and issued the Technical Evaluation Report in October 2006.

Significant Accomplishments:

In FY 2008, the NRC oversaw decommissioning activities at 15 power and early demonstration reactors, 11 research and test reactors, 25 uranium recovery sites, and 28 complex material and fuel cycle facilities that were undergoing decommissioning, including termination or transfer of 10 sites. Two license amendments for uranium recovery facilities were completed. License applications for three uranium recovery facilities were accepted and the safety/environmental reviews for those applications were initiated. The final environmental impact statement (FEIS) for Sequoyah Fuels Corporation and the draft generic environmental impact statement (GEIS) for In Situ Uranium Recovery facilities were issued. Seven generic technical issues regarding WIR activities with the DOE were resolved.

In FY 2009, the NRC provided oversight of decommissioning activities at approximately

70 power and early demonstration reactors, research and test reactors, uranium recovery sites, and complex materials sites and fuel cycle facilities. License applications for four uranium recovery facilities were accepted and the safety and environmental reviews for these applications were initiated. The final Generic Environmental Impact Statement for In Situ Recovery uranium recovery facilities is expected to be issued in FY 2009.

Spent Fuel Storage and Transportation

					FY 2010			
	FY 2 Enac		FY 2 Enac		Request		Change from FY 2009	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$17.9	87	\$16.5	83	\$17.6	89	\$1.0	6
Infrastructure and Support	9.3	22	9.5	21	10.2	22	0.7	2
Total	\$27.2	109	\$26.1	104	\$27.8	111	\$1.7	8

SPENT FUEL STORAGE AND TRANSPORTATION

Numbers may not add due to rounding.

Description:

The Spent Fuel Storage and Transportation program supports rulemaking activities, licensing, certification, and inspection of the interim storage of spent fuel from commercial nuclear reactors and the domestic and the international transportation of radioactive materials to ensure safety and to meet industry needs. The program reviews applications for independent spent fuel storage installations (ISFSIs) at commercial nuclear power plants, spent fuel storage casks, transportation packages, dual purpose (storage and transport) casks, transportation security plans, and route approvals. The Spent Fuel Storage and Transportation program support achievement of NRC's strategic goals on safety and security through the development, maintenance and implementation of a licensing and regulatory program to ensure the adequate protection of public health and safety and the environment as well as security.

FY 2010 Activities:

In FY 2010, resources will support the NRC review of approximately 60–70 transportation package design approval requests, and approximately 20 spent fuel storage casks and 5 spent fuel storage facility license requests to support safe and secure domestic and international transportation, industry needs for full-core off-load capability at operating reactor sites, and transfer of spent fuel to ISFSIs to support reactor decommissioning. Resources also support rulemaking activities, licensing and inspection activities associated with transportation security for radioactive material quantities of concern, which includes transportation of special nuclear material, spent nuclear fuel, and classified materials, as well as security plan reviews for new licensees, route approvals, and maintenance of shipment information. Additionally, resources support approximately 15 safety inspections each year of cask vendors, fabricators, and designers, as well as ISFSIs. FY 2010 resources also support a multi-year study associated with spent fuel vulnerabilities and mitigating strategies and U.S. Department of Homeland Security critical infrastructure protection.

Changes from FY 2009 Enacted Budget:

The resource request reflects efficiencies expected from risk-informing the Standard Review Plans (SRP) and the incorporation of applicable interim staff guidance documents. The SRPs are used by the NRC technical review staff to ensure consistency of application review among the many reviews that are underway, by clearly identifying acceptable practices and methods for demonstrating compliance with NRC regulations. The SRPs are also used by licensees and applicants as they prepare their applications for NRC review, in that the SRP describes a "standard review" process. Resources increase primarily to support anticipated increases in radioactive material transportation and spent fuel storage license reviews.

Output Measures:

Complete storage container and installation design reviews within timeliness goals.							
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	
Target:	$80\% \le 14 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	80% ≤ 13.3 mos. 100% ≤ 2 yrs.	80% ≤ 12.6 mos. 100% ≤ 2 yrs.	$80\% \le 12.6^{**}$ mos. $100\% \le 2$ yrs.	80% ≤ 12.6 mos. 100% ≤ 2 yrs.	80% ≤ 12.6 mos. 100% ≤ 2 yrs.	
Actual:	$82\% \le 14 \text{ mos.}$ $89\% \le 2 \text{ yrs.}^*$	85% ≤ 13.3 mos. 100% ≤ 2 yrs.	100% ≤ 12.6 mos. 100% ≤ 2 yrs.	90% ≤ 12.6 mos. 100% ≤ 2 yrs.			

*The measure for completion of all storage container and facility cases in less than 2 years was not met. However, this reflects staff completion of all cases that were pending more than 2 years (Idaho Spent Fuel Facility, GE-Morris renewal, and Surry renewal and exemption.) There were no cases pending more than 2 years at the end of FY 2005. **Output targets for FY 2008 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. The labor rates were updated based on historical expenditures during FY 2006 and FY 2007. The labor rates had last been updated for the FY 2007 budget, based on expenditures during FY 2004 and FY 2005. The casework profile also changed as a result of revisions to 10 CFR Part 72 that reduced regulatory burden on licensees and allowed certain changes without prior NRC approval, resulting in a 20 percent reduction in forecasted amendment applications, beginning in FY 2004.

Complete t	Complete transportation container design reviews within timeliness goals.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	$80\% \le 8 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 7.7$ mos. $100\% \le 2$ yrs.	$80\% \le 7.4$ mos. $100\% \le 2$ yrs.	$80\% \le 7.4^*$ mos. $100\% \le 2$ yrs.	$80\% \le 7.4 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 7.4$ mos. $100\% \le 2$ yrs.			
Actual:	$89\% \le 8 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$96\% \le 7.7$ mos. $100\% \le 2$ yrs.	$92\% \le 7.4 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$86\% \le 7.4 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$					

*Output targets for FY 2008 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. The labor rates were updated based on historical expenditures during FY 2006 and FY 2007. The labor rates had last been updated for the FY 2007 budget, based on historical expenditures during FY 2004 and FY 2005.

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Inspection	<u>IS</u> :							
Number of spent fuel storage and transportation inspections completed.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
Target:	New measure in FY 2006	16 inspections						
Actual:		16 inspections	16 inspections	16 inspections				

Research:

Timeliness	Timeliness of completing actions on critical research programs.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	85% of major milestones met on or before their due date.	85% of major milestones met on or before their due date.	85% of major milestones met on or before their due date.	90% of major milestones met on or before their due date.	90% of major milestones met on or before their due date.	90% of major milestones met on or before their due date			
Actual:	81% across programs.*	96% across programs.	100% across programs.	100% across programs.					

Definition: 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 each fiscal year.

*The FY 2005 target was not met as a result of unanticipated requirements within critical research programs and emergent work of equal priority.

Acceptable technical quality of agency research technical products.									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	New measure in FY 2007		Combined score ≥3.0	Combined score ≥3.0	Combined score ≥3.5	Combined score ≥3.5			
Actual:			4	4					
determine ı	NRC has developed a process to measure the quality of research products that includes surveying end-users to determine usability and value-added of the product and feedback from the Advisory Committee on Reactor Safe-								

guards on research programs and products. As appropriate, other mechanisms will be developed and added to this process to measure the quality of research products.

Efficiency Measure:

Develop risk-informing standard review plans and incorporating applicable Interim staff guidance documents.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010		
Target:	New measure in	FY 2009			The FY 2009- 2010 resource requests already incorporate the 2 FTE per year efficien- cies expected from the risk- informing/ knowledge management initiative.	The FY 2009- 2010 resource requests already incorporate the 2 FTE per year efficien- cies expected from the risk- informing/ knowledge management initiative.		
Actual:								
for the licer staff, with c documents tion and tes safety. This ing the pub	n of Spent Fuel St using of spent fuel contractor assistan to help focus staff sting of licensing is s will improve the lic health and safe taff has identified	storage casks and ice are risk-inform f reviews on more nformation in the efficiency and efficiency the ety, promoting the	d facilities, and the ning the SRPs and important aspect areas of confinem fectiveness of the p e common defense	e certification of the incorporating app s of design, analy tent, structural, sh reviews, and supp e and security and	ransportation pac plicable Interim S sis, material, fabri nielding, criticality port the agency m l protecting the er	kages. Division taff Guidance ication, inspec- v and thermal ission of protect- wironment		

more efficiently or where staff review is less important in terms of safety impact, and hence the scope of the staff's review could be reduced. Applicable Interim Staff Guidance documents will be incorporated into the updated

SRPs in order to consolidate guidance in a single document.

FY 2010 Improvement Plans:

Implement an independent evaluation and improve performance measures.

Significant Accomplishments:

In FY 2008, the NRC completed 78 transport package design reviews and 11 storage container and installation design reviews. The NRC also conducted 18 inspections of activities related to material package certificate holders, spent fuel storage container certificate holders, and preoperational activities and initial operations at independent spent fuel storage certificate holders facilities to ensure that casks are being fabricated according to approved safety requirements.

The NRC, DOE, and U.S. Department of Transportation (DOT) cosponsored the 15th International Symposium on Packaging and Transportation of Radioactive Materials (PATRAM) in October 2007. PATRAM is an international symposium held to exchange information on all aspects of the packaging and transportation of radioactive materials. This conference brought together representatives of the domestically and internationally regulated communities.

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In FY 2009 the program will complete 15 inspections and will review approximately 60 transportation package design approval requests, and approximately 16 spent fuel storage casks and 3 spent fuel storage facility license requests from applicants and licensees to support safe and secure domestic and international transportation, industry needs for full-core off-load capability at operating reactor sites, and transfer of spent fuel to ISFSIs to support reactor decommissioning.

The NRC issued a Regulatory Issue Summary and associated Federal Register notice in late FY 2008, to address requests for limited continued use of casks, whose Certificate of Compliance was to expire on October 1, 2008, the implementation date of the 1996 IAEA transport regulations. This helped to ensure public health and safety by creating a mechanism for continued shipment of radiopharmaceuticals using the existing radioactive material transportation packages for a limited number of shipments, each with a fixed expiration date. A total of 15 applications were received from vendors and shippers, and were approved by March 2009.

A tri-party working group comprised of staff from the DOT, the NRC and the Canadian Nuclear Safety Commission prepared the "Joint-Canada-United States Guide for Approval of Type B (U) and Fissile Material Transportation Packages," (Joint Guide). The Joint Guide provided the framework to enhance U.S. and Canadian validation of Competent Authority Type B (U) and fissile materials transportation package approvals for export and import. In June 2008, the Joint Guide was published for public comment in both the United States, as NUREG-1886, and in Canada, as RD-364. The final document was published in March 2009, in both the United States and Canada.

High-Level Waste Repository

					FY 2010			
	FY 2 Enac		FY 2 Enac		Request		Change from FY 2009	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program							. <u> </u>	
Program Support	\$18.7	88	\$38.6	88	\$45.9	106	\$7.3	18
Infrastructure and Support	10.3	17	10.4	14	10.1	22	-0.3	8
Total	\$29.0	105	\$49.0	102	\$56.0	128	\$7.0	26

HIGH-LEVEL WASTE REPOSITORY

Numbers may not add due to rounding.

Description:

The High-Level Waste Repository program is responsible for licensing and enforcement activities related to the Yucca Mountain geologic repository. This program supports achievement of NRC's strategic goal on safety and security through its regulatory activities associated with the licensing review of the DOE application for the permanent disposal of spent nuclear fuel at Yucca Mountain, Nevada. To conduct the license application review the program has implemented two concurrent processes; assess the technical merits of the repository design, and support the adjudicatory hearing before NRC Atomic Safety and Licensing Board convened to hear the technical and legal challenges posed by a number of parties to the DOE application.

FY 2010 Activities:

In FY 2010, resources will support the ongoing license review by funding the NRC staff conducting technical license application review activities and providing technical and legal representation support for staff hearing activities including discovery and possible evidentiary hearings on National Environmental Policy Act-related contentions. Also, resources will support hearing process-related activities, including support for as many as 3-4 Licensing Boards, law clerks, and information technology infrastructure. Reviews of storage cask systems and the transportation package applications will be conducted as necessary.

Changes from FY 2009 Enacted Budget:

The NRC resources available for the High-Level Waste (HLW) repository review remain essentially flat from FY 2008 – FY 2010. Resources in FY 2008 included \$27 million in funding from prior years in addition to the \$29 million from the enacted budget (\$56 million total). Resources available in FY 2009 include \$10 million in funding from prior years in addition to the \$49 million from the enacted budget (\$59 million total). Total resources available in FY 2010 will be \$56 million with no prior year funds anticipated.

Licensing:

After recei	After receipt of a license application major milestones are completed on time.*									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	New measure in	FY 2009		Decide wheth- er to docket license applica- tion and adopt DOE final environmental impact state- ment no more than 90 days from receipt of application.	The first pre- hearing confer- ence order identifying participants in the proceed- ing, admitted contentions, and setting discovery and other schedules is issued.	Evidentiary hearing on final environ- mental impact statement (EIS) begins.				
Actual:				Met Target						
	* Submittal date of License Application is controlled by DOE; targets assume June 2008 (FY 2008) but actual submit- tal date may vary.									

Efficiency Measure:

High-level	High-level waste repository license application reviews*								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target: Actual:	New measure in	FY 2009			Major Tasks in the High-Level Waste Licens- ing Review Program Proj- ect Plan will take 5 percent less combined contractor and NRC staff FTE to complete than is pro- jected in the plan.**	Actual hours expended for major tasks in the approved High-Level Waste Licens- ing Review Program Proj- ect Plan do not exceed 10% of the projection.			
*Targets, b	Targets, baselines, and calculation methods are under development and measure may be revised.								

*Targets, baselines, and calculation methods are under development and measure may be revised. **Budget fluctuations have caused frequent changes in project scope and priorities. The output measure will be modified in FY 2009 consistent with the FY 2010 measure to reflect the increased flexibility needed to adopt the program to changing resource levels. The new metric will continue to focus on the efficient use of resources to accomplish major tasks.

Timeliness in completing reviews for technical allegations.								
	FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010							
Target:	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days		80% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	5	90% ≤ 150 days 95% ≤ 180 days 100% ≤ 360 days		
Actual:	N/A*	N/A*	N/A*	N/A*				

Enforcement:

*Target not applicable because DOE license application was not received in FY 2005; NRC responsibility for enforcement does not begin until DOE submits its application. DOE's license application was received during the summer 2008 (FY 2008).

NRC and contractor staff will be focused on hearing activities and will be organized into teams to effectively meet hearing challenges. Project management software will be use d to quickly share documents between contractors and headquarters. Administrative processes will be improved to enter documents into the licensing support network

Significant Accomplishments:

On June 3, 2008, DOE submitted a license application to the NRC seeking authorization to construct a geologic repository at Yucca Mountain, Nevada. A detailed technical review of the DOE license application has begun, and the NRC has instituted the hearing process to consider challenges to the application.

On September 8, 2008, the NRC staff determined that the license application contained sufficient information to begin conducting a detailed technical review. The NRC staff also determined that it was practicable to adopt the Final Environmental Impact Statement (FEIS) and supplements prepared by DOE, but additional supplementation is necessary to address one area regarding groundwater impacts. With these decisions, the NRC staff began the detailed technical review of the application.

In FY 2009, the Atomic Safety and Licensing Board published a notice of hearing and leave to intervene in October 2008. Petitions for leave to intervene and over 300 contentions have been filed with the Board. Hearing activities are continuing. In March 2009, the NRC amended its regulations (10 CFR Part 63) to conform to a new Environmental Protection Agency standard for the proposed repository at Yucca Mountain, Nevada.

PERFORMANCE MEASUREMENT

5 PERFORMANCE MEASUREMENT

Performance Measurement

The U.S. Nuclear Regulatory Commission's (NRC's) Strategic Plan for fiscal years (FY) 2008–2013 describes the agency's mission and establishes the Commission's direction by defining its goals, strategic outcomes, and strategies and means. The revised plan changes the goal structure to ensure a focus on outcomes. The FY 2010 Performance Budget uses the Strategic Plan structure to align resources and to show a clear linkage between programs and the agency's goals.

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, Measuring and Monitoring Performance, and Assessing Performance (see figure 5-1).



FIGURE 5-1 PLANNING, BUDGET, AND PERFORMANCE MANAGEMENT PROCESS

The components of the PBPM process are closely linked and complementary, reflecting a continuous cycle of performance management centered on outcomes. This document integrates the agency's PBPM functions by aligning resources with the agency's goals and establishing performance measures to enable periodic measurement and monitoring of program execution. Annual performance assessments are used to analyze performance and seek improvements in effectiveness and efficiency.

Performance Measurement Relating Goals to Resources

The subprogram descriptions in this document identify which strategic goal - Safety or Security - each individual subprogram contributes to and how. The NRC has implemented the PBPM process to accomplish performance budgeting, performance measuring and monitoring, and performance assessments within the agency. The NRC's Strategic Plan describes our mission and establishes the Commission direction by defining a strategic objective, goals, strategic outcomes, and strategies. The performance budget integrates the agency's PBPM functions by aligning resources with the agency's goals and establishing performance measures to enable measurement and monitoring of program execution. Figure 5-2 illustrates the relationship between goals and resources to accomplish performance budgeting within the agency effectively. The agency is also aligning its budget and accounting structures. This will enable the NRC to use cost and other financial data together to evaluate agency program performance. The integration

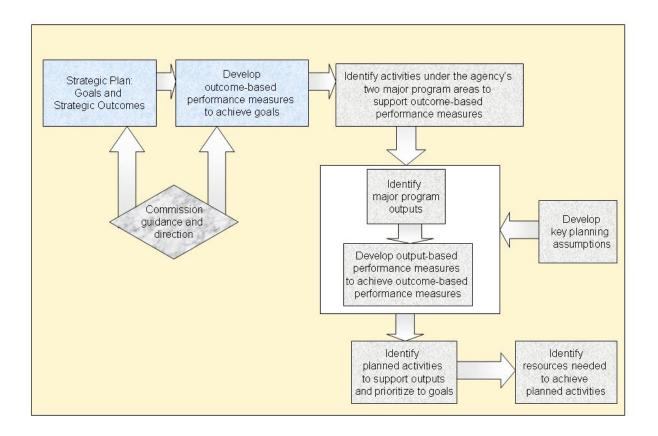


Figure 5-2 relating resources to goals

of financial, budget, and performance data will provide managers the kind of information that can be used to drive improved agency performance.

The NRC provides guidance to the staff on the agency's outcome-based performance measures, which indicate the level of success needed to achieve the agency's goals. In addition, the NRC identifies which activities under the agency's two major program areas support the NRC's outcome-based performance measures and uses these as guides to help formulate the budget. Specifically, the agency develops key planning assumptions, which identify major program drivers that would significantly influence the NRC's work activities and resource requirements. For each major activity, the NRC identifies the major program outputs needed to achieve the outcome-based performance measures, taking into consideration the key planning assumptions. The NRC also identifies and prioritizes planned activities needed to achieve the outputs in each major activity and prioritizes them based on their contribution to goals. Lastly, the NRC determines the resource requirements needed to achieve each planned activity, forming the basis for developing the agency's budget for each program area. Each of NRC's performance budget review levels takes into consideration those factors described above in relating outcome-based and output-based performance measures to resources in making budget recommendations and decisions.

<u>Goals</u>

The NRC's Strategic Plan for FY 2008–2013 determines the agency's long-term strategic direction. This FY 2010 Performance Budget reflects the agency's new Strategic Plan. The goals of Safety and Security have been retained in the new strategic plan and are the basis for this Performance Budget. This structure better links programmatic and management performance and focuses progress toward key outcomes.

FY 2010 Resource Allocation by Goal

Adequate protection of public health and safety and the environment has always been, and continues to be, the NRC's primary goal. Accordingly, safety is the most important consideration in evaluating license applications, licensee performance, and proposed changes to the regulatory framework. Because security is essential to the NRC mission and linked with safety, it is also an important consideration in the agency's actions. The agency continuously works to improve its openness, effectiveness and efficiency, and management excellence consistent with its safety and security mission. The NRC's resources are allocated to its Nuclear Reactor Safety program and Nuclear Materials and Waste Safety program areas. Activities in these two major program areas contribute directly to the achievement of the agency's goals. The table below shows the alignment of the NRC fully costed Nuclear Reactor Safety program and Nuclear Materials and Waste Safety program with the goals, Safety and Security. The full cost includes an allocation of the agency's infrastructure and support costs to specific programs.

(Excludes OIG)									
	FY	2009 Enacted]	FY 2010 Requ	est			
Major Programs	Safety	Security	Total	Safety	Security	Total			
Nuclear Reactor Safety	\$749.28	\$39.0	\$788.3	\$764.4	\$35.4	\$799.8			
Nuclear Materials and Waste Safety	\$215.8	\$30.5	\$246.3	\$232.0	\$29.2	\$261.2			
Total ¹	\$965.1	\$69.5	\$1,034.7	\$996.4	\$64.6	\$1,061.0			

ALIGNMENT OF RESOURCES TO NRC GOALS (Dollars in Millions) (Excludes OIG)

¹Numbers may not add due to rounding.

PERFORMANCE MEASUREMENT

Goal 1—Safety: Ensure protection of public health and safety and the environment.

Strategic Outcomes:

1.1 – Prevent the occurrence of any nuclear reactor accidents.

1.2 - Prevent the occurrence of any inadvertent criticality events.

1.3 - Prevent the occurrence of any acute radiation exposures resulting in fatalities.

1.4 - Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures.

1.5 - Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts.

GOAL 1: SAFETY-PERFORMANCE MEASURES

		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
1. Number of	1. Number of new conditions evaluated as red by the NRC's reactor oversight process. ¹									
Target:		<u><</u> 3	<u>≤</u> 3	<u><</u> 3	<u>≤</u> 3	<u><</u> 3	<u>≤</u> 3			
Actual:		0	0	0	0					
	This performance measure was developed such that a single finding (i.e., at a 3-unit site) would not exceed the target number of red inputs.									
2. Number of	2. Number of significant accident sequence precursors (ASPs) of a nuclear reactor accident. ²									
Target:		<u>≤</u> 1	0	0	0	0	0			
Actual:		0	0	0	0					
3. Number of operating reactors whose integrated performance entered the Manual Chapter 0350 process, the multiple/repetitive degraded or unacceptable cornerstone of the Reactor Oversight Program (ROP) Action Matrix with no performance exceeding Abnormal Occurrence Criteria. ³										
Target:		<u>≤</u> 4	<u>≤</u> 4	<u>≤</u> 4	<u>≤</u> 3	<u><</u> 3	<u><</u> 3			
Actual:		0	0	1	0					

Performance Measurement

4. Number of significan	t adverse trends in	industry safet	y performance.	4		
Target:	0	≤1	≤1	≤1	<u>≤</u> 1	≤1
Actual:	0	0	0	0		
5. Number of events wirence Criterion I.A.	th radiation expos	ures to the pub	lic or occupatio	nal workers	that exceed Abr	ormal Occur-
Reactor Target:	0	0	0	0	0	0
Actual:	0	0	0	0		
Material Target:	<u>≤</u> 6	<u>≤</u> 6	<u>≤</u> 3	≤2	<u>≤</u> 2	<u>≤</u> 2
Actual:	1	0	0	0		
Waste Target:	0	0	0	0	0	0
Actual:	0	0	0	0		
6. Number of radiologi	cal releases to the	environment th	at exceed appli	cable regula	tory limits. ⁵	
Reactor Target: ⁶	<u>≤</u> 3	<u><</u> 3	<u>≤</u> 3	0	0	0
Actual:	0	0	0	0		
Material Target:	<u>≤</u> 5	<u>≤</u> 5	≤2	<u>≤</u> 2	≤2	<u>≤</u> 2
Actual:	0	0	0	0		
Waste Target:	0	0	0	0	0	0
Actual:	0	0	0	0		

Goal 2-Security: Ensure the secure use and management of radioactive materials.

Strategic Outcome:

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

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
1. Unrecovered los	ses of risk-signif	icant ⁷ radioactiv	e sources.							
Target:	0	0	0	0	0	0				
Actual:	0	0	0	0						
	2. Number of substantiated ⁸ cases of actual theft or diversion of licensed, risk-significant radioactive sources or formula quantities ⁹ of special nuclear material; or attacks that result in radiological sabotage ¹⁰ . ^{11 13}									
Target:New Measure in FY 2007000										
Actual:	i vew meusure i		0	0						
3. Number of subst discrepancies of for by substantial breat	mula quantities	of special nuclea	ar material that a							
Target:	New Measure i	- EV 2007	0	0	0	0				
Actual:	New Measure I	IIFI 2007	0	0						
4. Number of substaccountability system										
Target:	New Measure i	n EV 2007	<u>≤</u> 1	<u>≤</u> 1	<u>≤</u> 1	≤1				
Actual:	New Measure I	IIFI 2007	0	0						
5. Number of significant unauthorized disclosures of classified and/or safeguards information. ¹⁴										
Target:	0	0	0	0	0	0				
Actual:	0	0	0	0						

INSPECTOR GENERAL

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					FY 2010				
	FY 2 Ena		FY 2 Enac		Rec	luest		e from 2009	
Summary	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE	
Budget Authority by	Budget Authority by Program								
Program Support	1.075		1.870		.974		-0.896		
Program Salaries & Benefits	7.669	51	8.990	58	9.128	56	0.138	-2	
Total	8.744	51	10.860	58	10.102	56	-0.758	-2	

Numbers may not add due to rounding.

Description:

In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General's (OIG) 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. In addition, OIG reviews existing and proposed regulations, legislation, and directives and provides comments, as appropriate, on identified significant concerns. The Inspector General also keeps the NRC Chairman and members of Congress fully and currently informed about problems, recommends corrective actions, and monitors NRC's progress in implementing those actions. OIG carries out its mission through its audit and investigative sub-programs.

The OIG Strategic Plan, which was updated in FY 2008, is aligned with the agency's mission and focuses on agency programs and operations that involve the major challenges and risk areas for the NRC. The *Reports Consolidation Act of 2000* requires the Inspector General (IG) of each Federal agency to summarize annually what he or she considers to be the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges. Serious management and performance challenges are mission critical areas or programs that have the potential for perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals. As part of the annual process OIG seeks input from NRC's Chairman, Commissioners, and management to obtain their views on what challenges the agency is facing and what efforts the agency has taken or planned to address previously identified management and performance challenges.

OIG's Strategic Plan features three goals which guide the activities of its audit and investigative sub-programs:

Inspector General OIG Strategic Goals

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

Overview of the OIG Performance Budget

The Office of the Inspector General's FY 2010 Performance Budget provides the resources to carry out the Inspector General's mission. OIG's proposed FY 2010 budget is \$10.1 million, representing a decrease of approximately \$0.8 million from the FY 2009 enacted level.

BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY SUB-PROGRAM

					FY 2010			
	FY 2 Enac		FY 2 Enac		Rec	luest	Chang FY 2	e from 2009
Sub-Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Audits	\$5.142	29	\$7.210	37	\$6.404	35	-\$.806	-2
Investigations	3.602	22	3.650	21	3.698	21	.048	0
Total	\$8.744	51	\$10.860	58	\$10.102	56	-\$.758	-2

The work to be performed by OIG during FY 2010 will be carried out through OIG's two major sub-programs, Audits and Investigations. In accordance with OMB requirements, OIG is providing the full cost of its programs. The budget identifies OIG's management and operational support costs and distributes these costs to the audit and investigative sub-programs as a portion of the full cost of these programs.

The following section presents sub-program resource tables and descriptions of the requested resources, the associated efforts within each sub-program as well as specific accomplishments for previous years.

AUDITS

					FY 2010			
	FY 2 Enac		FY 2 Enac		Rec	luest	Chang FY 2	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$5.142	29	\$7.210	37	\$6.404	35	-\$.806	-2
Total	\$5.142	29	\$7.210	37	\$6.404	35	-\$.806	-2

FY 2010 Activities:

For FY 2010, OIG requests \$6.4 million and 35 FTE to carry out its audit sub-program activities. With these resources, the audit subprogram will conduct approximately 25 audits and evaluations. Audits will focus on agency programs involving the major management challenges and risk areas facing the NRC to include those agency subprograms of New Reactors and Spent Fuel Storage and Transportation.

Areas for OIG audit emphasis in FY 2010 will include:

- The extent to which NRC has examined the history of the licensing and construction of the first generation of plants and has developed a methodology to incorporate the lessons learned into the new licensing and construction process;
- NRC's integration of operating experience, generic safety issues, and introduction of new technologies (e.g., digital products) into new reactor licensing;
- The adequacy of NRC's development of a construction inspection program;
- The oversight by NRC on vendor material used in the construction of new reactor plants; and
- NRC's regulatory activities involving the interim storage of high-level waste and spent fuel both at and away from the reactor sites.

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

Also included in this request are Contract Support and Travel resources to assist in acquiring essential contract services to conduct statutorily mandated audits to evaluate NRC's implementation of the Federal Information Security Management Act of 2002

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and to fulfill NRC's Federal Acquisition Regulation (FAR) requirements.

FY 2009 – FY 2010 Audit Sub-Program Performance Goals:

OIG audits planned for FY 2009 – FY 2010 will link directly to the OIG Strategic Plan and its associated goals and strategies. Each year, OIG develops a comprehensive annual audit plan that includes input from various elements of the NRC, Congress, other federal agencies, the nuclear industry, and OIG staff. This plan also identifies the specific program areas and key priorities, strategies, and activities on which OIG audit resources will focus during the fiscal year. OIG plans audits to encourage efficiency, economy, and effectiveness in NRC's critical risk programs and operations, and to improve program activities at headquarters and regional offices. However, to respond to a changing environment, it is sometimes necessary to make changes to this plan as circumstances or priorities warrant.

The requested resources for the audit sub-program will support OIG efforts to focus on identifying risk areas and management challenges relating to the strengthening of NRC's safety, security, and/or resource management programs. To measure its success, the OIG audit sub-program has established the following FY 2010 performance goals:

- Safety Area: 85% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's safety programs.
- Security Area: 90% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's security programs.
- Corporate Management Area: 80% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's corporate management programs.
- Eighty percent of OIG audit products or activities completed will have a high impact on strengthening NRC's safety, security, and/or resource management programs.
- Obtain agency agreement on at least 92 percent of OIG audit recommendations.
- Obtain final agency action on an aggregate of 70 percent of OIG audit recommendations within 2 years.

					FY 2010			
	FY 2008 Enacted		FY 2009 Enacted		Request		Change from FY 2009	
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by	Program							
Program Support	\$3.602	22	\$3.650	21	\$3.698	21	\$.048	0
Total	\$3.602	22	\$3.650	21	\$3.698	21	\$.048	0

INVESTIGATIONS

FY 2010 Activities:

For FY 2010, OIG requests \$3.78 million and 21 FTE to carry out its investigative subprogram activities. With these resources, the investigative sub-program will focus on the detection and prevention of fraud, waste, and abuse within NRC, with particular emphasis on investigating possible violations of criminal statutes relating to NRC programs and activities; investigating misconduct by NRC employees; interfacing with the Department of Justice on criminal matters; and coordinating investigations and other OIG initiatives with federal, State, and local investigative agencies and other OIGs. Investigations are initiated as a result of allegations or referrals from private citizens; licensee employees; NRC employees; Congress; other federal, State, and local law enforcement agencies; OIG audits; the OIG Hotline; and other OIG initiatives directed at areas bearing a high potential for fraud, waste, and abuse. In addition, OIG routinely undertakes proactive investigations directed at particular areas of agency programs that have high potential for fraud, waste, and abuse.

The main focus of this sub-program is the investigation of alleged NRC staff misconduct that could adversely impact the agency's handling of matters related to public 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 70 to 90 investigations and Event Inquiries covering a broad range of allegations concerning misconduct and mismanagement affecting various NRC programs.

FY 2009–FY 2010 Investigative Sub-Program Performance Goals:

The OIG investigative sub-program for FY 2009 – FY 2010 will include investigative activities related to the integrity of NRC's programs and operations. OIG routinely receives and investigates allegations concerning violations of federal laws and regulations, as well as allegations of mismanagement, waste, or staff misconduct that could adversely affect public health and safety. On a priority basis, investigative sub-program products and activities will be directed to address allegations in the safety, security, and resource management mission-related areas articulated in the OIG Strategic Plan.

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The requested resources for the investigative sub-program will support OIG efforts to focus on identifying risk areas or management challenges relating to the strengthening of NRC's safety, security, and/or resource management programs. To measure its success, the OIG investigative sub-program has established the following FY 2010 performance goals:

- Safety Area: 85% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's safety programs.
- Security Area: 90% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's security programs.
- Corporate Management Area: 80% of OIG product/activities undertaken will identify risk areas or management challenges relating to the improvement of NRC's corporate management programs.
- Eighty percent of OIG investigations or activities completed will have a high impact on strengthening NRC's safety, security, and/or resource management programs.
- Obtain 90 percent agency action in response to OIG investigative reports.
- Complete 90 percent of active non-fraud cases in less than 18 months.

Selected Accomplishments:

The following sections discuss examples of recent work performed by the OIG audit and investigative sub-programs.

Audits

In FY 2008, OIG issued 20 audit and special evaluation reports pertaining to NRC programs and operations and 9 in the first 6 months of FY 2009. Those audits either evaluated high-risk agency programs or complied with mandatory financial and computer security-related legislation.

The following are examples of recent work:

Audit of National Source Tracking System Information System Development: The National Source Tracking System (NSTS) is an NRC initiative designed to allow Agreement States and federal government agencies to track transactions of specific types and quantities of radiological sealed sources. NRC awarded a contract worth approximately \$15 million in December 2005 for NSTS information system development, operational support, and maintenance. This contract included approximately \$3.1 million to fund information system development. The audit

objective was to evaluate the agency's management of NSTS information system development and assess delays in the development process.

Audit Results:

NRC had planned to develop the NSTS information system so that licensees could begin reporting radiological source data in November 2007. However, NRC's contractor did not complete system development work on schedule. With key system design issues unresolved, NRC modified the baseline contract to increase funds for development tasks by approximately \$2.8 million, an increase of nearly 90 percent over the initial development task cost ceiling of \$3.1 million. In addition, NRC postponed system deployment to December 2008 and revised the licensee reporting deadline to January 2009.

System development delays resulted from a lack of clear policies and procedures for review of key system security documentation and for coordinating efforts among internal stakeholders. Technological, organizational, and staffing issues were additional factors cited by NRC staff. Agency officials have considered development of the NSTS information system a top agency priority for improving accountability of radiological sources. However, delays in system development raise concerns about NRC's management of future information systems, particularly since NRC is planning two systems to complement NSTS.

Audit of NRC's Agreement State Program: In accordance with section 274 of the Atomic Energy Act, as amended, NRC may relinquish its authority to regulate byproduct, source, and limited quantities of special nuclear material to States. These States must first demonstrate that their regulatory programs are adequate to protect public health and safety and compatible with NRC's program. States that have entered into an agreement assuming this regulatory authority from NRC are called Agreement States. NRC has programmatic responsibility to periodically review the actions of the Agreement States to comply with the requirements of the Atomic Energy Act. In order to accomplish this task, NRC periodically reviews Agreement States using the Integrated Materials Performance Evaluation Program (IMPEP). The audit objective was to assess NRC's oversight of the adequacy and effectiveness of Agreement State programs.

Audit Results:

Although NRC maintains oversight of Agreement States, there are program adequacy and effectiveness issues that require management's attention. Specifically,

• Agreement State program managers are unaware of several operational issues to include a lack of underlying cause analysis during IMPEP reviews and in reports, inconsistent use of the pre-IMPEP questionnaire, IMPEP team leaders unprepared to conduct reviews, and lack of awareness of associated guidance by selected

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IMPEP State team members and/or NRC staff accompanying staff inspectors. This condition exists because there is no systematic mechanism for conducting self-assessments and capturing lessons learned for IMPEP. Consequently, IMPEP may not be as effective as it could be for assessing the adequacy and compatibility of Agreement State programs.

- Under the Atomic Energy Act, NRC can temporarily suspend its agreement with a State during an emergency situation. However, NRC has not identified all of the information necessary for re-exerting authority and lacks the formal procedural guidance about what information is needed about Agreement State programs and materials licensees. Without this valuable planning information and lack of access to certain programs and materials licensee information, NRC could lose oversight and awareness of licensees and materials.
- NRC lacks (1) standardization in communication procedures, and (2) a standardized data collection process that can be used as a basis for developing a national information sharing tool. As a result, some States may be unaware of important issues, and NRC does not have a full and accurate picture of Agreement State regulatory activities.
- NRC's reviews of whether an Agreement State has appropriately reported all events to the Nuclear Material Events Database (NMED) may not be consistently performed because NRC's IMPEP reviews do not require an analysis of unreported events to determine whether such events are being appropriately identified for and included in NMED. Consequently, NRC and the public may have an inaccurate accounting of material events in some States, which could also hamper events data trend analysis efforts.

Investigations:

In FY 2008, OIG completed 60 investigations and Event Inquiries. In the first half of FY 2009, investigations opened 24 cases, closed 14 cases, and have 44 cases in process. 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.

The following are examples of recent work:

NRC Contractor Violates False Claims Act: OIG completed an investigation into an allegation from a private citizen that an NRC contractor, Science Applications International Corporation (SAIC), violated the False Claims Act by not disclosing conflicts of interest. On October 7, 2008, the U.S. District Court jury ordered SAIC to pay \$6.5 million in damages to the NRC.

Investigative Results:

OIG found that in 1992 and 1999, NRC awarded two contracts to SAIC to provide NRC with technical assistance on the development of a rulemaking that would allow for the recycling and reuse of slightly radioactive material, primarily contaminated metals. In 1992, SAIC assisted NRC in establishing scientific standards governing the reuse of such material and was to present an options paper outlining the possible approaches to rulemaking for the release of these materials. The goal of the 1999 contract was to assess regulatory alternatives regarding the release of reusable materials. As part of both contract requirements, SAIC certified to NRC that SAIC did not have any conflicts of interest.

OIG determined that SAIC breached its organizational conflict of interest obligations under both NRC contracts by engaging in relationships with organizations, including the Association of Radioactive Metal Recyclers (ARMR), whose aim was to advocate in favor of recycling and reusing radioactive materials. By concealing these relationships, SAIC stood to benefit from the NRC rule. OIG concluded that SAIC violated the False Claims Act and breached NRC contract requirements by not disclosing these relationships.

The SAIC investigation was presented to the U.S. Department of Justice, which assisted by the NRC Office of the General Counsel, filed a civil complaint in the U.S. District Court. As a result of a Federal trial, a jury found that SAIC violated the False Claims Act and awarded the United States \$6.49 million under the False Claims Act for 77 false claims and statements, damages, and civil penalties.

Check Scam Involving the NRC: OIG completed an investigation into an allegation by a New Jersey resident concerning a counterfeit check that appeared to come from the NRC, which the resident received for items sold over the Internet.

OIG identified a total of eight public citizens throughout the United States who sold items over the Internet and received counterfeit checks that appeared to come from NRC. Printed on each of the counterfeit checks was the NRC accounts receivable account number and payment address that were published on NRC's Web site to inform licensees where to send their license payments. Each check was made out for more than the cost of the item being sold on the Internet. Each seller received instructions via e-mail to cash the check, keep money for the item sold as well some additional money for themselves, and return the balance via wire transfer. The e-mail instructions were generated from Nigeria.

Investigative Results:

OIG determined that two of the individuals who received counterfeit NRC checks were instructed to wire the money to an address in Los Angeles, California. OIG found that the woman who lived at the California address, and her brother, were hired by

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an individual they "met" online to manufacture checks for and transfer money to an alleged textile company in Nigeria. OIG learned that both the woman and her brother claimed that between September 2007 and August 2008, they manufactured 500 to 2,500 checks a month and collected approximately \$150,000 in wired payments. After keeping \$20,000 for themselves, they sent the remaining money to Nigeria.

OIG also determined that the check scheme did not involve any NRC personnel and that there was no loss to the NRC from the check scheme. OIG provided information regarding the check scheme to agency staff who, in turn, removed the NRC accounts receivable account number from the NRC's Web site. Details of the check scheme were provided to the U.S. Secret Service for investigation.

OIG Program Performance Measures:

OIG Strategic Goa	al 1: Strengthen NRO	C's Efforts To Protec	OIG Strategic Goal 1: Strengthen NRC's Efforts To Protect Public Health and Safety and the Environment								
	2006	2007	2008	2009	2010						
Measure 1. Perce relating to the im	Measure 1. Percent of OIG products/activities ¹⁵ undertaken to identify risk areas or management challenges ¹⁶ relating to the improvement of NRC's safety programs.										
Target	80%	80%	80%	80%	85%						
Actual	100%	100%	100%	TBD	TBD						
Measure 2. Perce	nt of OIG products	activities that have	a high impact ¹⁷ on i	mproving NRC's sa	fety program.						
Target	70%	70%	70%	70%	85%						
Actual	100%	100%	100%	TBD	TBD						
Measure 3. Num	ber of audit recomn	endations agreed to	o by agency.								
Target	90%	90%	90%	90%	92%						
Actual	81%18	100%	93%	TBD	TBD						
Measure 4. Final	agency action with	n 1 year on audit re	commendations.								
Target	50%	50%	50%	50%	70%19						
Actual	63%	36%20	63%	TBD	TBD						
Measure 5. Agen	cy action in respons	e to investigative re	eports.								
Target	90%	90%	90%	90%	95%						
Actual	100%	100%	100%	TBD	TBD						
OIG Strategic Goa Environment	al 2: Enhance NRC's	s Efforts To Increase	Security in Respons	e To an Evolving Th	ureat						
	2006	2007	2008	2009	2010						
	nt of OIG products, provement of NRC			reas or managemen	t challenges						
Target	85%	85%	85%	85%	90%						
Actual	100%	100%	100%	TBD	TBD						
Measure 2. Perce	nt of OIG products	activities that have	a high impact on in	nproving NRC's sec	urity program.						
Target	70%	70%	70%	70%	75%						
Actual	100%	100%	100%	TBD	TBD						
Measure 3. Num	ber of audit recomn	endations agreed to	o by agency.								
Target	90%	90%	90%	90%	92%						
Actual	100%	100%	100%	TBD	TBD						

Measure 4. Final	agency action with	in 1 year on audit re	commendations.						
Target	65%	65%	65%	65%	70% ²¹				
Actual	25%22	61% ²³	70%	TBD	TBD				
Measure 5. Agency action in response to investigative reports.									
Target	90%	90%	90%	90%	90%				
Actual	100%	100%	100%	TBD	TBD				
	OIG Strategic Goal 3: Improve the Economy, Efficiency, and Effectiveness With Which NRC Manages and Exercises Stewardship Over Its Resources								
	2006	2007	2008	2009	2010				
	ent of OIG products			reas or managemen	t challenges				
Target	65%	65%	65%	65%	80%				
Actual	99%	100%	100%	TBD	TBD				
Measure 2. Perce management pro	ent of OIG products gram.	/activities that have	a high impact on in	nproving NRC's res	ource [*]				
Target	70%	70%	70%	70%	85%				
Actual	96%	100%	100%	TBD	TBD				
Measure 3. Num	ber of audit recomm	nendations agreed t	o by agency.						
Target	90%	90%	90%	90%	92%				
Actual	100%	100%	100%	TBD	TBD				
Measure 4. Final	agency action with	in 1 year on audit re	commendations.						
Target	65%	65%	65%	65%	70% ²⁴				
Actual	60% ²⁵	85%	53% ²⁶	TBD	TBD				
Measure 5. Ager	ncy action in respon	se to investigative r	eports.						
Target	90%	90%	90%	90%	90%				
Actual	100%	100%	100%	TBD	TBD				
	Measure 6. Acceptance by NRC's Office of the General Counsel of OIG-referred Program Fraud and Civil Remedies Act cases.								
Target	70%	70%	70%	70%27					
Actual	100%	No Referrals	No Referrals	TBD					
* D . (1	1 1	1							

* Reflects a terminology change.

Verification and Validation of Measured Values and Performance:

OIG uses an automated management information system (MIS) to capture program performance data for the audit and investigative sub-programs. The integrity of the MIS was thoroughly tested and validated prior to implementation. Reports generated by the system provide both detailed information and summary data. Beginning with FY 2006, both the audit and investigative sub-program statistics were fully integrated into the new system and used to compile OIG statistical performance data. All system data are deemed reliable.

Crosscutting Functions With Other Government Agencies:

The NRC OIG has a crosscutting function relating to its investigatory case referrals to

the Department of Justice and other State and local law enforcement entities.

Inspector General Reform Act Certification for FY 2010:

The Inspector General certifies that NRC's OIG training request of \$134,000 satisfies all training requirements for the Inspector General's office for FY 2010. In addition, sufficient funds are available in the FY 2010 budget request to include the necessary funding resources of approximately \$24,000 to support the Council of the Inspectors General on Integrity and Efficiency.

FY 2010 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 OIG strategic goals.

	OIG Strategic Goals						
Program Links to Strategic Goals	Strengthen NRC's Public Health & Safety Efforts	Enhance NRC's Security Efforts	Increase NRC's Resource Stewardship Efforts				
FY 2010 Programs (\$10,102,00	FY 2010 Programs (\$10,102,000; 56 FTE)						
Audits (\$6,404,000; 35 FTE)	\$2,746,000 16.0 FTE	\$1,495,000 6.5 FTE	\$2,163,000 12.5 FTE				
Investigations (\$3,698,000; 21 FTE)	\$1,444,000 8.0 FTE	\$620,000 3.5 FTE	\$1,634,000 9.5 FTE				

APPENDICES

7 APPENDICES

Appendices

Appendix I: Budget Authority by Function

NRC's budget authority is aggregated into the major categories of salaries and benefits, contract support, and travel. Salaries and benefits are estimated based upon FTE, pay rates, pay raise assumptions and effective pay period for pay raise. Benefits cost include the government's contributions for retirement, health benefits, life insurance, Medicare, Social Security, and the Thrift Savings Plan. Contract support consists of obligations for commercial contracts, interagency agreements, grants, and other non-travel services such as rent and utility payments. Travel costs consist primarily of the expenses for nuclear reactor inspection trips.

			FY	2010
NRC Appropriation	FY 2008 Enacted	FY 2009 Enacted	Request	Change from FY 2009
Salaries and Expenses (S&E)			[•]	·
Salaries and Benefits	\$512.9	\$560.7	\$587.5	\$26.9
Contract Support	384.7	450.6	445.5	-5.1
Travel	19.7	23.4	27.9	4.5
Total (S&E)	917.3	1,034.7	1,061.0	26.3
Office of the Inspector General (OIG)				
Salaries and Benefits	7.7	9.0	9.1	0.1
Contract Support	0.8	1.6	0.7	-0.9
Travel	0.3	0.3	0.3	0.0
Total (OIG)	8.7	10.9	10.1	-0.8
Total NRC Appropriation			·	·
Salaries and Benefits	520.6	569.6	596.7	27.0
Contract Support	385.5	452.2	446.2	-6.0
Travel	20.0	23.7	28.2	4.5
Total (NRC)	\$926.1	\$1,045.5	\$1,071.1	\$25.6

BUDGET AUTHORITY BY FUNCTION (DOLLARS IN MILLIONS)

Numbers may not add due to rounding.

Appendix II: Homeland Security

The NRC requires nuclear power plants to protect against threats. These plants are some of the most fortified civilian facilities in the country. After September 11, 2001, the NRC used its independent regulatory authority to order the nuclear industry to implement new defensive capabilities, more rigorous guard training and many other security enhancements. The process of upgrading security continues. The table below presents NRC's Homeland Security funding broken down by subprogram. NRC's Homeland Security resources include funding for both generic activities excluded from fee recovery requirements by 42 U.S.C. 2214 and security inspections subject to fee recovery.

					FY 2010 Request			t
	FY 2008		FY 2 Ena		Req	uest	Change from FY 2009	
	\$ M	FTE	\$ M	FTE	\$ M	FTE	\$ M	FTE
New Reactors	\$4.7	3	\$3.5	4	\$1.0	2	-\$2.5	-3
Licensing Tasks	2.7	42	3.4	35	3.4	35	-0.0	-1
International Activities	2.2	0	0.0	0	0.0	0	0.0	0
Operating Reactor Oversight	2.6	68	2.4	71	3.0	72	0.5	1
Fuel Facilities	2.3	27	3.1	19	0.2	18	-2.9	-1
Nuclear Materials Users	5.2	26	6.5	31	8.6	30	2.1	-1
Spent Fuel Storage & Transportation	0.3	9	0.2	10	0.3	10	0.1	0
Administration	2.6	0	1.0	1	1.0	1	0.0	0
Subtotal	\$22.6	175	\$20.1	171	\$17.4	166	-\$2.7	-4
Salaries & Benefits	24.6		25.2		25.1		-0.1	
Subprogram Subtotal	\$47.2	175	\$45.3	171	\$42.5	166	-\$2.8	-4
Infrastructure Support	26.3		27.7		22.0		-5.7	
Total	\$73.5	175	\$73.0	171	\$64.6	166	-\$8.4	-4

HOMELAND SECURITY

(Dollars in Millions)

Numbers may not add due to rounding.

Appendix II: Homeland Security

The FY 2010 Performance Budget identifies the infrastructure and support costs for the 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 subprogram tables present the associated infrastructure and support funding included in the programmatic funding to provide the full cost of each subprogram.

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 rent and facilities management; approved space acquisition; physical and personnel security; administrative support services; acquisition of goods and services; human resources management, training, and development; matters involving small and disadvantaged businesses and civil rights; information technology (IT); information resources management; planning and budget analysis; accounting and finance; and policy support services to the Commission and program area staff in performing regulatory mission activities and achieving their performance goals. The following table provides a breakdown of the costs of infrastructure and support by program.

	FY 2	2008	FY 2	2009	FY 2	010
Program	\$M	FTE	\$M	FTE	\$M	FTE
Nuclear Reactor Safety						
New Reactors	\$55.5	132	\$ 68.5	148	\$74.8	163
Licensing Tasks	63.0	150	71.5	155	71.1	155
License Renewal	8.2	20	10.4	23	11.5	25
International Activities	3.1	7	3.4	7	4.1	9
Reactor Oversight	99.8	238	91.5	207	91.2	199
Incident Response	6.7	16	8.3	18	7.7	17
Subtotal Nuclear Reactor Safety	\$236.3	564	\$253.6	558	\$260.4	567
Nuclear Materials and Waste Safety				I	I	
Fuel Facilities	12.7	30	17.4	38	18.1	39
Nuclear Materials Users	12.3	29	28.6	62	28.4	62
Decommissioning and Low-Level Waste	9.3	22	12.6	27	12.2	27
Spent Fuel Storage and Transportation	9.3	22	9.5	21	10.2	22
Subtotal	43.6	104	68.2	148	68.9	150
High-Level Waste Repository	10.3	17	10.4	14	10.1	22
Subtotal Nuclear Materials and Waste Safety	\$53.9	121	\$78.6	162	\$79.0	172
Total Infrastructure and Support Allocation	\$290.2	685	\$332.2	719	\$339.4	739
Numbers may not add due to rounding.				[

INFRASTRUCTURE AND SUPPORT ALLOCATION BY PROGRAM

Appendix III: Infrastructure Support

					FY 2010			
	FY 2	2008		FY 2009 Enacted		Request		e from 2009
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Administration, Rent, and Human Resources	\$127.9	213	\$146.2	227	\$158.6	245	\$12.4	18
Information Technology and Information Management	91.3	195	110.7	212	108.2	214	(2.6)	2
Financial Management	28.0	117	31.0	118	29.1	109	(1.9)	-9
Policy and Support	26.3	158	27.3	160	29.3	169	2.0	8
Permanent Change of Station	16.7	2	17.1	2	14.2	2	(2.8)	0
Total	\$290.2	685	\$332.2	719	\$339.4	739	\$7.1	19

BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY FUNCTION

Numbers may not add due to rounding.

Justification of Costs by Function

Infrastructure and support comprise several functions: administration, rent, approved space acquisition, and human resources; IT and information management; financial management; policy support; and permanent change of station. The following sections highlight significant changes from FY 2009 resources levels and discuss major activities in FY 2010 for each of these functions.

Administration, Rent, and Human Resources: Resources increase for the Governmentwide FY 2010 pay raise and other nondiscretionary compensation and benefits increases, as well as for cost escalation in contracts and rent of existing space. An amount of \$11.4 million of FY 2010 administrative one-time new reactor costs were realigned directly to the New Reactor program before the full-cost allocation. These one-time costs include design and construction of a new headquarters office building; office and systems furniture; and X-ray machines, metal detectors, and card readers for security. Specifically, the Administration, Rent, and Human Resources budget provides resources for the following:

- Headquarters (HQ) full-time equivalent (FTE) staff, build out and rent for additional HQ space, systems and office furniture, transit subsidies, supplies, security equipment, security investigations, and guard services for the additional HQ space.
- Modernization of security information systems, the Integrated Personnel Security System, and the Headquarters access control system, including resources for procuring and implementing a physical and logical access control system compliant with Homeland Security Presidential Directive-12, "Policy for a Common Identification Standard for Federal Employees and Contracts," dated August 27, 2004.

Professional development training including leadership training; recruitment, outreach,

Appendix III: Infrastructure Support

and staffing activities; work-life services; strategic workforce planning; building and maintaining a positive, discrimination-free work environment; advocating for contracts with small businesses; and continuing efforts to implement NRC's Outreach and Compliance Coordination Program in accordance with applicable federal civil rights statutes and NRC regulations. These resources also support the agency's program for minority-serving higher education institutions with the goal of obtaining a highly qualified, diverse workforce to meet hiring needs. In addition, resources provides \$15 million for grants to universities for university-led, mission-related research in nuclear science, engineering, and related disciplines and trades.

Program Output Measures:

Administration, Rent

Acquisition Reform Initiative Measure. Percent of eligible service contracting dollars (contracts over \$25,000) that use performance-based contracting techniques during the fiscal year.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	Not less than 40%	Not less than 40%	Not less than 40%	Not less than 65%	Not less than 65%	Not less than 65%
Actual:	72%	67%	67%	78%		

Acquisition Reform Initiative Measure. Percent of required synopses for acquisitions that are posted on the government-wide point-of-entry web site (<u>www.FedBizOpps</u>.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.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	100% of all required syn- opses.					
Actual:	100%	98%	100%	100%		

Acquisition Reform Initiative Measure. Competitive Sourcing FY 2004. Number of business case analyses performed on commercial activities listed on the approved FAIR Act inventory and conducted in accordance with Agency competitive sourcing plan. (Measure Revised in FY 2004.)

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	3 business case analyses.	3 business case analyses.	3 business case analyses.	3 business case analyses.	3 business case analyses.	3 business case analyses.
Actual:	3	3	3	3		

Human Resources

Output Measure: Percentage of professional hires retained for a minimum of 3 years after initial NRC employ- ment.									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
Target:	New measure in FY 2005	75%	75%	85%	85%	85%			
Actual:		90%	93%	82%					

Appendix III: Infrastructure Support Administration, Rent, and Human Resources Significant Accomplishments

<u>Strategic Management of Human Capital</u>: To address challenges presented by the projected growth in the nuclear industry, the NRC has streamlined recruitment procedures and the review and approval process for relocation and retention incentives, and implemented to the maximum degree possible short-term, contractor, and other flexible hiring practices thereby enhancing the agency's ability to handle new work. Through the use of an automated strategic workforce planning tool, the NRC is able to determine what critical skill/knowledge gaps exist and can thereby focus its recruitment and other programs appropriately. The NRC's strategic approach to training, and development allowed the agency to establish priorities and leverage investments to ensure a comprehensive, integrated, competency-based system of staff training, which is even more crucial with the large number of new employees. In FY 2008, the agency successfully created and implemented a program for grants to universities.

In FY 2009, NRC implemented several of the recommendations developed by a second Lean Six Sigma Team to meet the timeliness standards established by the U.S. Office of Personnel Management (OPM) End-to-End hiring model including launching the NRC Knowledge Center, an agency wide collection of electronic Communities of Practice designed to enable staff to collaborate, capture and share knowledge in order to build organizational memory; establishing an Expertise Exchange to capture the lessons learned and best practices from our most experienced staff; and actively contacting Knowledge Management (KM) staff across the federal family and in industry to identify best practices and lessons learned in KM.

<u>Competitive Sourcing</u>: One of the NRC's corporate management strategies is to acquire goods and services in an efficient manner. To achieve this, the NRC adopted a performance-based approach to contracting, and posted procurement synopses on the agency's Web sites.

The NRC uploaded its 2008 Federal Activities Inventory Reform Act inventory in the OMB's Workforce Inventories Tracking System on June 30, 2008. In accordance with the NRC's Competitive Sourcing Plan, the agency completed three business case analyses in FY 2008.

Information Technology and Information Management: In FY 2010, resources will support the IT infrastructure for ongoing needs including user authentication and secure access to the National Source Tracking System, IT seat management contract escalations, document and records management requirements, enhanced information security to meet new requirements and government mandates, computer security training, and migration to the Homeland Secure Data Network. Resources will also provide for continued the deployment of the Secure LAN/Electronic-Safe, which is a network to manage safeguards information and allow its transmission to authorized individuals within the NRC Headquarters and regional offices. Specifically, the budget provides

support for the following ongoing activities:

- Infrastructure services and support to manage NRC's IT infrastructure agencywide and maintain current service levels. This includes desktop support and infrastructure development and integration; compliance and security activities; telecommunications, including local, long distance, video teleconferencing, data and voice communications; and production operations to support systems administration and data center operations.
- Application development, maintenance, and operational support activities for agency information systems. Resources are also included to support the agency's Enterprise Architecture program and Federal Information Security Management Act compliance.
- Information management activities, including the replacement of obsolete technology supporting the agency's document management system; operation of the public document room; modernization of internal and external Web sites; and compliance with the Freedom of Information Act and Privacy Act (FOIA).

Information Dissemination Timeliness - Meets agency timeliness targets for key information dissemination channels, including public meeting notices, Freedom of Information Act responses, and documents made publicly avail-

Program Output Measures:

able thro	ugh ADAMS.	0 ,		1 ,		1 5
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Target:	New measure in	FY 2009			Timeliness targets met for FOIA re- sponses, public meeting no- tices, and NRC documents made publicly available*	Timeliness targets met for FOIA re- sponses, public meeting no- tices, and NRC documents made publicly available*
Actual:						

Information Technology and Information Management

*Targets for FY 2009 and FY 2010 are as follows: Percent of the time NRC responds to FOIA requests within 20 working days (75%); percentage of category 1,2, and 3 meetings on regulatory issues posted on the public web site at least 10 days in advance (90%); percent of non-sensitive, unclassified regulatory documents sent to the agency's Document Processing Center and released by the sixth working day, after the date of the document (90%); percent of non-sensitive, released to the public by the sixth working day after the document is added to ADAMS (90%).

Percent of the time that key IT infrastructure services are available.								
	FY 2006 FY 2007 FY 2008 FY 2009 FY 2010							
Target:	New measure for FY	2009	99.5%	99.5%				
Actual:	Actual:							

Appendix III: Infrastructure Support

	System Certification and Accreditation - Percent of major applications and general support systems that have been certified and accredited.								
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	New measure in FY	2009		90% of those scheduled to be accredited in FY 2009	90% of those scheduled to be accredited in FY 2010				
Actual:									

	OMB Exhibit 300 Scores - Percent of major IT investments that are rated as "acceptable" based on OMB's evalua- tion of NRC's Exhibit 300 submittal.								
	FY 2005	Y 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010							
Target:	New measure in	New measure in FY 2009 90% 90%							
Actual:									

Information Technology Significant Accomplishments

In 2008 the NRC largely aligned its IT investments with the federal government's Electronic Government program (E-Gov). The NRC has completed migration to a number of E-Gov services and is in the process of migrating to other E-Gov services. The NRC has also institutionalized internal processes to ensure effective use and compliance with E-Gov requirements.

The NRC uses E-Gov services for payroll, security clearance, acquisition support, governmentwide customer service, recruitment, E-Training, Federal Information Security Management Act reporting, and E-Rulemaking and is aligned with the E-Records, Budget Formulation, and Geospatial programs. The NRC is currently implementing E-Travel. The NRC is also converting its paper-based employee records to OPM's electronic personnel folder. To institutionalize E-Gov, the NRC has established procedures to avoid IT investments that would duplicate other Federal E-Gov programs and to take advantage of the SMARTBUY program. The NRC receives financial and human resource services from the U.S. Department of the Interior, a selected shared service provider, and is in the process of replacing its core financial systems.

In 2008 the NRC established the Personally Identifiable Information (PII) Task Force to identify how PII is used at the NRC and to develop policies and procedures to protect PII while minimizing the impact on agency operations. Also, the NRC created a PII Project Web site and maintains a site related to the NRC's Sensitive Unclassified Non-Safeguards Information (SUNSI) program on NRC's intranet. The Web sites provide the NRC staff with current information related to PII and SUNSI activities at the NRC as well as links to the NRC's policy for SUNSI and PII. Furthermore, NRC issued Regulatory Issue Summary 2007-04, "Personally Identifiable Information Submitted to the U.S. Nuclear Regulatory Commission," to enhance the awareness of permit holders and licensees about PII and the need to protect it from inappropriate disclosure.

The New Reactor Application Document Intake and Review Project continues to provide the capability for applicants to create and submit electronic combined operating license (COL) application submittals to the NRC. Twelve COL submissions and 26 COL revisions were successfully submitted during 2008.

In FY 2009, NRC completed a search of the Publicly Available Records System for Personally Identifiable Information. The NRC also revised the agency's PII Breach Notification Policy to incorporate credit monitoring services.

The NRC successfully presented the new Fitness For Duty (FFD) workflow of the Electronic Information Exchange (EIE) to the industry representatives and plant operators at the Nuclear Energy Institute convention in Las Vegas on January 15, 2009. The new EIE workflow allows secured submission of FFD information and also provides ad hoc reporting capabilities. Licensees can now submit incident reports and annual reports in an electronically secure manner and can recall individual report data, or view aggregated trend data, for itself or for the industry at large. All 30 license holders representing 75 facilities are expected to use the system for annual reporting. High Level Waste proceeding contention respondents were required to file their replies to the Department of Energy and NRC through EIE. Twenty-seven submissions were received from 13 interveners relating to the filing deadline of February 24, 2009.

The filing deadline for petitions in the High Level Waste License Application Proceeding ended at midnight on December 22, 2008. From December 19 through 22, petitions were received through Electronic Information Exchange from two states (Nevada and California), 10 counties (in 7 petitions), Timbisha Shoshone Tribe, Native Community Action Council, Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corp., and NEI. The petitions and referral memoranda were made available via the Electronic Information Exchange for participants in the proceeding with a digital certificate, and in ADAMS PARS and the Electronic Hearing Docket for the public. As the result of a 2008 Senior Leadership Meeting, NRC held an IT Summit to advance the agency's understanding of the complexities of maintaining the NRC IT Infrastructure, gain appreciation for the importance of successful IT project planning, and verify current plans for agency-wide IT modernization. The IT Summit foundation was that NRC business needs should drive technology projects whether the projects originated in OIS or the program offices. IT Summit attendees considered previous work done in this context including the Infrastructure Planning Team (IPT) Report from the spring of 2008. Five business-oriented IT themes, derived from the IPT report, were discussed and prioritized at the IT Summit. Attendees focused on the top three themes and discussed the business needs and benefits associated with each one. The theme priorities were identified, in order, as Working from Anywhere, Organizational Productivity, and Universal Access to IT Systems and Information. Office feedback at the IT Summit was used to establish an action plan to deliver results aligned with these agency priorities. IT governance bodies will verify that the results delivered are representative of agency-wide needs and ensure that IT funding aligns with agreed

Appendix III: Infrastructure Support

upon needs. Cross-organizational "quick strike teams" are now evaluating the business needs and recommending appropriate and cost effective strategies and solutions to address them.

Financial Management: Resources in FY 2010 support the agency planning, budgeting, accounting, and current financial systems and activities; as well as the effort to modernize the agency's financial systems. Additionally, they ensure agency compliance with the Government Performance and Results Act, including updating the agency's Strategic Plan and developing its annual Performance Plan and Performance Report.

Meet statutory fee collection requirement.										
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve ap- proximately 100% ac- tual collec- tions when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.				
Actual:	98.9% col- lected. Main- tained past due accounts receivable at less than 0.08% of annual bill- ings.	Target met.	Target met.	98.0% col- lected. Main- tained past due accounts receivable at less than 0.1% of annual bill- ings.						

Program Output Measures

Percentage of non-salary payments made electronically and accurately within established schedule.										
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010				
Target:	95%	95%	95%	98%	98%	98%				
Actual:	99%	99%	95%	99%						

Financial Management Significant Accomplishments

<u>Budget and Performance Integration</u>: The NRC continues to make progress in achieving budget and performance integration. This progress includes developing new and replacing existing outcome-based performance measures aligned with the agency's Strategic Plan, accurately monitoring program performance, and integrating performance information with associated costs.

Appendix III: Infrastructure Support

The NRC used the budget formulation system first in FY 2008, replacing an outdated single-user, desktop database for the formulation of the FY 2010 Budget. The budget formulation system (with Web-browser) has increased efficiency by enabling real-time aggregation of entered budget data and offering more robust reporting capabilities. The system was upgraded agencywide in FY 2009, allowing expanded reporting and increased user access to the system for the formulation of the FY 2011 budget.

Improved Financial Management: The agency is progressing towards its vision for improving financial management by getting out of the business of operating and maintaining financial systems and by moving to a shared service provider of fully integrated financial systems based on commercial off-the-shelf software. This financial management systems strategy will improve business processes, system performance, and information access in addition to reducing life-cycle costs. A federal shared service provider currently hosts and operates the NRC's core accounting and payroll systems. The NRC maintains and operates its other financial management systems, which interface internally with the core accounting and payroll systems. The NRC is also working to upgrade its time and labor system, with the long-term goal of having the system hosted and operated by a shared service provider.

In FY 2008, the NRC completed its third year of compliance with the OMB Circular A-123, Appendix A, requirements for assessing internal control over financial reporting. The deficiencies noted during testing were classified as either a simple or a significant deficiency. No material weaknesses were identified. The NRC implemented corrective actions to remediate the deficiencies. The Senior Assessment Team monitors the progress of the corrective actions to ensure that the deficiencies are resolved. The agency included the results of the assessment in the Federal Managers' Financial Integrity Act Statement of Assurance included in the annual Performance and Accountability Report.

Policy Support: An increase of resources in FY 2010 will provide for additional policy and adjudicatory support to the Commission. The increase also provides for the governmentwide FY 2009 pay raise and other nondiscretionary compensation and benefits increases. Specifically, the budget provides resources for the following:

- agency policy formulation, advice and assistance to the Commission on Congressional and protocol issues, adjudicatory review, legal advice, management and oversight of agency programs, and public affairs activities leading to openness and increased public confidence
- independent evaluations of agency programs

Permanent Change of Station: Resources in FY 2010 will provide for permanent change of station activities, based on projected FTE increases. Specifically, the budget provides resources for employee relocations, including resident inspector moves and new agency hires.

Appendix IV: Verification and Validation for NRC Measures and Metrics Appendix IV: Verification and Validation for NRC Measures and Metrics

Data Collection Procedures

Most of the data used to measure the NRC's performance against its strategic goals related to safety are obtained or derived from the NRC's abnormal occurrence (AO) data and reports submitted by licensees. The AO criteria have been amended to ensure that they are consistent with the NRC's Strategic Plan for FY 2008–2013 and the NRC rulemaking on Title 10 of the *Code of Federal Regulations* (Title 10) 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 that support this process include the Licensee Event Report Search System (LERSearch), the Accident Sequence Precursor (ASP) Database, the Nuclear Material Events Database (NMED), and the Radiation Exposure Information Report System.

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 and the regional offices, as well as periodic conference calls between Headquarters, the regions, and Agreement States to discuss

Appendix IV: Verification and Validation for NRC Measures and Metrics event information. Identified events that meet the AO criteria are validated and verified by all applicable NRC headquarters program offices, regional offices, and agency management before submission to Congress.

The Agency Action Review meeting provides another opportunity for NRC's senior management to discuss significant events, licensee performance issues, trends, and the actions the NRC needs to take to mitigate recurrences.

Data protection is maintained by the agency's computer security program, which provides administrative, technical, and physical security measures to protect the agency's information, automated information systems, and information technology infrastructure. These measures include special safeguards to protect classified information, unclassified safeguards information, and sensitive unclassified information that is processed, stored, or produced on designated automated information systems.

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.

Verification: Licensees report any nuclear reactor events at their facilities in licensee event reports (LERs). The NRC reviews the LER data and the NRC's AO coordinators then discuss each potential AO during their periodic meetings at Headquarters and the regional offices to determine whether it meets the AO reporting criteria. Any nuclear reactor accidents, deaths from acute radiation exposures, events that result in significant radiation exposure, or releases of radioactive materials that cause significant adverse environmental impacts that meet the criterion for an abnormal event would be identified through LERs. In addition, NRC specialists periodically conduct inspections to assess licensee compliance with reporting criteria as well as radiological and environmental release criteria. If a licensee reports an event involving core damage, NRC inspectors carefully investigate the event to ensure the validity of the information

Appendix IV: Verification and Validation for NRC Measures and Metrics contained in the licensee's report. In addition, a resident inspector on duty at each reactor monitors the facility on a real-time basis. The resident inspector verifies the safe operation of the facility and would be aware of any instances in which core damage has occurred or any instance in which radiation was released from the reactor in excess of reporting limits.

The NRC staff prepares AO writeups and evaluates events using specific criteria to select those events that the staff recommends to the Commission to be considered AOs. The NRC's Office of Nuclear Regulatory Research makes the final determination of which events should be recommended to be considered potential AOs. NRC Management Directive 8.1 "Abnormal Occurrence Reporting Procedure," provides thorough documentation of the AO reporting process.

Validation:

<u>Prevent the occurrence of any nuclear reactor accidents</u>. Nuclear reactor accidents are defined in the NRC Severe Accident Policy Statement as those events that result in substantial damage to the reactor fuel, whether or not serious offsite consequences occur.

<u>Prevent the occurrence of any inadvertent criticality events</u>. Events collected under this strategic outcome are actual occurrences of accidental criticality. Such events could compromise public health and safety, the environment, and the common defense and security. Events of this magnitude are not expected and would be rare. If such an event occurred, it would result in prompt and thorough investigation, including its consequences, root causes, and necessary actions by the licensee and the NRC to mitigate the situation and prevent recurrence.

Prevent the occurrence of any acute radiation exposures resulting in fatalities. Determining whether or not any deaths result from acute radiation exposure is essential to protecting public health and safety. Events of this magnitude are rare. If such an unlikely event occurred, it would result in prompt and thorough investigation of the event, its consequences, its root causes, and the necessary actions by the licensee and/ or the NRC to mitigate the situation and prevent recurrence. This strategic outcome measure is a direct measurement of the occurrence of radiation-related deaths at nuclear reactors.

Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures. Nuclear power generation produces radiation, which can be harmful if not properly controlled. Measuring the number of events resulting in significant radiation exposures, as well as any deaths from radiation exposure, indicates whether radiation-related deaths and illness are being prevented. Significant radiation exposures are defined as those that result in unintended permanent functional damage to an organ or a physiological system as determined by a physician in accordance with Abnormal Occurrence Criterion 1.A.3.

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Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts. The radiation produced in the process of generating power from nuclear materials can also potentially harm the environment if it is not properly controlled. Releases that have the potential to adversely impact the environment are currently undefined. As a surrogate for this performance measure, the NRC collects data on the frequency with which radioactive material is released into the environment in excess of specified limits. NUREG-0090, Appendix A, Criterion 1.B.1, defines such releases as those involving "the release of radioactive material to an unrestricted area in concentrations which, if averaged over a period of 24 hours, exceed 5,000 times the values specified in Table 2 of Appendix B to 10 CFR Part 20, unless the licensee has demonstrated compliance with 20.1301 using 20.1302(b)(1) or 20.1302 (b) (2)(ii)." The essence of the criterion is that events that result in unintended permanent functional damage to an organ or a physiological system as determined by a physician are used as the measure for events that result in releases of radioactive material causing an adverse impact on the environment. Such events are reported in LERs, which are sent to the NRC as reportable occurrences. This strategic outcome measure is a direct measurement of instances in which harmful impacts on the environment occur from nuclear reactors.

Performance Measures:

• Number of new conditions evaluated as red by the NRC's reactor oversight process.

Reactor Safety Target: Less than or equal to 3

Verification: The data for this performance measure are collected in two ways as part of the NRC's reactor oversight process (ROP). Inspection findings are collected at least quarterly by NRC inspectors. Inspectors use formal detailed inspection procedures to review plant operations and maintenance. Inspection findings are reviewed by NRC managers to assess their significance as part of the ROP's significance determination process (SDP). The data for performance indicators is collected by licensee's and submitted 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, and 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 used by the ROP cover

Appendix IV: Verification and Validation for NRC Measures and Metrics 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 measure is the number of new red inspection findings during the fiscal year 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 measure. A red performance indicator and a red inspection finding that are due to an issue with the same underlying causes are also considered separate conditions for purposes of reporting for this measure. 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.

• 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 systematically to identify, document, and rank those 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 and/or conditions that may be potential precursors to a nuclear accident. The data that are evaluated include LERs from a LERSearch database; Incident Investigation Team or Augmented Inspection Team reviews the NRC's daily screening of operational events, and other events identified by NRC staff as candidates. 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) by mapping failures observed during the event 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 in which the ASP results reasonably agree with the SDP results, formal peer reviews by licensees may not be performed. The NRC staff will continue to perform an in-house review process for all analyses. Lastly, findings from the analyses are provided to the licensee and the public.

It must also be noted that there is a time lag in obtaining ASP analysis results since they are often based on LERs (submitted up to 60 days after an event) and most analyses take approximately 6 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 (10-3) or greater probability of leading to a nuclear reactor accident. Significant accident sequence precursor events have a conditional core damage probability (CCDP) or Δ CDP of > 1x 10-3.

• Number of operating reactors whose integrated performance entered the Manual Chapter 0350 process, the multiple/repetitive degraded cornerstone column, or the unacceptable performance column of the ROP Action Matrix.

Reactor Safety Target: Less than or equal to 3

Verification: The data for this performance measure are collected by the NRC ROP 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, and 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 collected by the ROP 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. Plants that are identified as having performance issues are reviewed by senior agency managers on an annual basis, and the results are reported to the Commission. The same is true of the agency's self-assessment of the ROP.

This measure is the number of plants that have entered the Manual Chapter 0350 process, 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 measure 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.

• Number of significant adverse trends in industry safety performance.

Reactor Safety Target: Less than or equal to 1

Appendix IV: Verification and Validation for NRC Measures and Metrics *Verification*: The data for this performance measure are derived from data supplied by all power plant licensees in LERs and from monthly operating reports, as well as performance indicator data submitted for the ROP. These data are required by 10 CFR 50.73 and/or plant-specific technical specifications, or 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 submitted by licensees, 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 statement of work for the contract. The experience and training of key personnel are controlled through administration of the contract. The contractor identifies discrepancies to both licensees and the NRC for resolution. The NRC reviews the indicators and publishes them on the agency's Web site on a quarterly basis. 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 measure provide a broad range of information on nuclear power plant performance. The NRC staff tracks indicators and applies statistical techniques to provide an indication of 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 regarding the indicators. The Industry Trends Program is reviewed by senior agency managers on an annual basis, and the results are reported to the Commission.

• Number of events with radiation exposures to the public and occupational workers from nuclear reactors that exceed Abnormal Occurrence Criteria I.A.

Reactor Safety Target: Zero

Verification: Licensees report overexposures through the Sequence Coding and Search System (SCSS) LER database, maintained at the Oak Ridge National Laboratory, which receives all LERs and codes them into a searchable database. The SCSS database is used to identify those LERs that report overexposures. NRC resident inspectors stationed

Appendix IV: Verification and Validation for NRC Measures and Metrics 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.

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

Reactor Safety Target: 0

Verification: As with worker overexposures, licensees report environmental releases of radioactive materials that are in excess of regulations or license conditions through the SCSS LER database maintained at the Oak Ridge National Laboratory. The SCSS database will be utilized to identify those LERs reporting releases and the number of reported releases is then applied to this measure. 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 measure 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 to be taken for violations of the regulations or license conditions, based on the severity of the event.

This performance measure includes dose values that are classified as being as low as reasonably achievable (ALARA), contained in Appendix I to 10 CFR Part 50 as well as the public dose limits contained in 10 CFR Part 20. Because the performance measure includes ALARA values, which are not safety limits, and because Appendix I to

Appendix IV: Verification and Validation for NRC Measures and Metrics 10 CFR Part 50 allows licensees to temporarily exceed the ALARA dose values, for good reason, the performance measure is set to 2.

Goal 1 - Safety: Ensure adequate protection of public health and safety and the environment.

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.

Verification: Prevent the occurrence of any inadvertent criticality events. Inadvertent criticality events must be reported, regardless of whether they result in exposures or injuries to workers or the public or result in adverse impacts to the environment. Licensees immediately report criticality events to the NRC Headquarters Operations Center by telephone through the cognizant licensee safety officer. Followup written reports are required to be submitted to the NRC within 30 days of the initial report. Such reports must contain specific information concerning the event, as specified by 10 CFR 70.50(c)(2) and 10 CFR 76.120(d)(2). The NRC then dispatches an inspection team to confirm the reliability of the data. The event is also tracked through the Nuclear Materials Event Database (NMED). An event of this nature would be immediately investigated and followed up by the NRC. Should an event meeting this threshold occur, it would be reported to the NRC 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, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation programs are key elements in verifying the completeness and accuracy of licensee reports. The Integrated Materials Performance Evaluation Program (IMPEP) also provides a mechanism to verify that the NRC regions are consistently and properly 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

Appendix IV: Verification and Validation for NRC Measures and Metrics monthly staff reviews, emphasis and analysis during the IMPEP reviews; NMED training in Headquarters, the regions, and Agreement States; and discussions at all Agreement States and Conference of Radiation Control Program Directors (CRCPD) meetings.

Validation: Events collected under this strategic outcome are actual occurrences of accidental criticality. Such events could compromise public health and safety, the environment, and the common defense and security. Events of this magnitude are not expected and would be rare. If such an event occurred, it would result in prompt and thorough investigation of its consequences, its root causes, and the necessary actions by the licensee and the NRC to mitigate the situation and prevent recurrence. Therefore, the strategic outcome of no inadvertent criticalities represents a valid measure of ensuring adequate protection of public health and safety.

In assessing the validity of the data being collected as being appropriate for the strategic outcome, the staff has determined that there is a logical relationship between the data collected and the strategic outcome. Given the magnitude and rarity of a criticality event, the NRC believes the probability of not being aware of an inadvertent criticality is very small.

Verification: Prevent the occurrence of any acute radiation exposures resulting in <u>fatalities</u>. Determining whether a death resulted from acute radiation exposure is fundamentally essential to ensure protection of public health and safety. Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States 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 disseminate the information widely to internal and external stakeholders.

The fuel facilities, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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 Headquarters, the regions, and Agreement States; and discussions at all Agreement States and CRCPD meetings.

Validation: NRC's regulatory process, including licensing, inspection, guidance, regulations, and enforcement activities, is sufficient to ensure that there are no fatalities due to acute radiation exposure. Events of this magnitude are not expected and would be rare. In the unlikely event that a death should occur, the decision on whether to

Appendix IV: Verification and Validation for NRC Measures and Metrics ascribe the cause of a death to conditions related to acute radiation exposures, or exposure to other radioactive hazardous materials (for fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70), is made by the NRC or Agreement State technical specialists, with input provided by expert consultants, as necessary.

The NRC believes the data collected to meet this strategic outcome are free from bias. The NRC does not use statistical sampling of data to determine results. Rather, all events data are reviewed to determine if the strategic outcome has been met. There are two important data limitations in determining this strategic outcome. These include delay time for receiving information and/or the failure of NRC to become aware of an event that results in a fatality. The NRC regulations and procedures 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.

NRC believes the probability of not being aware of a fatality due to acute radiation exposure is very small. Periodic licensee inspections and regulatory reporting requirements are sufficient to ensure an event of this magnitude would become known.

If such an event occurred, it would result in 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, where staff and management review events that appear to meet this strategic outcome.

Verification: Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures. The NRC defines this strategic outcome as any discharge or dispersal of radioactive materials from the intended place of confinement, or discharge or dispersal of radioactive wastes during storage, transport, or disposal, which cause significant radiation exposures to a member of the public or occupational worker that directly result in unintended permanent functional damage to an organ or physiological system, as determined by a physician, in accordance with AO Criterion I.A.3. (This metric does not include exposures from sealed sources. Exposure from sealed sources would be counted under the performance measure, "Number of events with radiation exposures to the public and occupational workers from radioactive material that exceed AO Criterion I.A.")

Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States 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. For activities of the Office of Nuclear Materials Safety and Safeguards (NMSS) and Office of Federal and State Materials and Environmental Materials (FSME), the NMED is an essential system used to collect information on such events.

Appendix IV: Verification and Validation for NRC Measures and Metrics The fuel facilities, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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 Headquarters, the regions, and Agreement States; and discussions at all Agreement State and CRCPD meetings.

Validation: "Significant radiation exposures" are defined as those that result in unintended permanent functional damage to an organ or a physiological system as determined by a physician in accordance with AO Criterion I.A.3. Events of this magnitude are not expected and would be rare. In the unlikely event that a significant exposure should occur, the decision on whether or not to ascribe the permanent functional damage to conditions related to acute radiation exposures, or exposure to other radioactive hazardous materials (for fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70), is made by the NRC or Agreement State technical specialists, with input provided by our expert consultants, as necessary.

The NRC does not use statistical sampling of data to determine results. Rather, all event data are reviewed to determine if the strategic outcome has been met. There are two important data limitations in determining this strategic outcome. These include delay time for receiving information and/or the failure of the NRC to become aware of an event that results in significant radiation exposures. Although NRC regulations and procedures 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 results in significant radiation exposures is very small. Periodic licensee inspections and regulatory reporting requirements are sufficient to ensure an event of this magnitude would become known.

If such an event occurred, it would result in 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, where staff and management review events that appear to meet this strategic outcome.

Verification: Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts. Releases that have the potential to cause "adverse environmental impact" are currently undefined. As a surrogate, the NRC will use any discharge or dispersal of radioactive materials from the intended place of

Appendix IV: Verification and Validation for NRC Measures and Metrics confinement or discharge or dispersal of radioactive wastes during storage, transport, or disposal that exceeds the limits for reporting AO as given in Abnormal Occurrence criterion 1.B.1.

Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States 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, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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 Headquarters, the regions, and in Agreement States; and discussions at all Agreement State and CRCPD meetings.

Validation: Releases that have the potential to cause "adverse environmental impact" are those that exceed the limits for reporting AOs as given by Abnormal Occurances Criterion 1.B.1. The NRC's regulatory process, including licensing, inspection, guidance, regulations, and enforcement activities, is sufficient to ensure that there are no releases of radioactive materials that cause significant adverse environmental impacts.

Events of this magnitude are not expected and would be rare. In the unlikely event of a release of radioactive materials (for fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70), the decision on whether the release caused a significant adverse environmental impact is made by the NRC or Agreement State technical specialists, with input provided by expert consultants as necessary.

The NRC does not look at statistical sampling of data to determine results. Rather, all event data are reviewed to determine if the strategic outcome has been met. There are two important data limitations in determining this strategic outcome. These include delay time for receiving information and/or the failure of NRC to become aware of an event that causes significant adverse environmental impacts. Although the NRC regulations and procedures 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.

<u>Appendix IV: Verification and Validation for NRC Measures and Metrics</u> The NRC believes the probability of not being aware of an event that causes significant adverse environmental impacts is very small. Periodic licensee inspections and regulatory reporting requirements are sufficient to ensure an event of this magnitude would become known.

If such an event occurred, it would result in 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, where staff and management review events that appear to meet this strategic outcome.

Performance Measures:

• Number of events with radiation exposures to the public or occupational workers from radioactive material that exceed Abnormal Occurrence Criteria I.A.

Materials Safety Target: Less than or equal to 2

Waste Safety Target: Zero

Verification: This performance measure includes any event involving licensed radioactive materials that results in significant radiation exposures to members of the public and/or occupational workers that exceed the dose limits in the AO reporting criteria. Due to the extremely high doses employed 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 measure. AO Criterion I.A is used as the basis for this measure.

Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States 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, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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 Headquarters, the regions, and in Agreement States; and discussions at all <u>Appendix IV: Verification and Validation for NRC Measures and Metrics</u> Agreement State and 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 Abnormal Occurrence Criterion I.A., as a performance measure 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 Abnormal Occurrence Criterion I.A.

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 if the performance measure has been met. There are two important data limitations in determining this performance measure. These include delay time for receiving information and/or the failure of NRC to become aware of an event that causes significant radiation exposures to the public or occupational workers. Although NMSS and FSME procedures and 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 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, where staff and management validate the occurrence of these events.

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

Materials Safety Target: Less than or equal to 2

Waste Safety Target: Zero

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

Appendix IV: Verification and Validation for NRC Measures and Metrics less than or equal to five releases a year that meet this reporting criteria. The nuclear waste safety target is to have no releases that meet the reporting criteria.

Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States 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, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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 Headquarters, the regions, and in 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 under 10 CFR 20.2203(a)(3)(ii) as a performance measure 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 or Agreement State technical specialists or our 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. Rather, all event data are reviewed to determine if the performance measure has been met. There are two important data limitations in determining this performance measure. These include delay time for receiving information and/or the failure of NRC to become aware of an event that causes environmental impacts. Although NMSS and FSME procedures and 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, where staff and management validate the occurrence of these events.

Goal 2-Security: Ensure the secure use and management of radioactive materials.

Nuclear Reactor and Nuclear Materials and Waste Security

Strategic Outcome

• No instances where licensed radioactive materials are used domestically in a manner hostile to the security of the United States

Performance Measures

• Unrecovered losses or thefts of risk-significant radioactive sources is 0.

Under Abnormal Occurrence 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 Abnormal Occurrence 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 Abnormal Occurrence 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, housing) of the source and its surroundings where all reasonable efforts have been made to recover the source, and where it has been determined that the source is not recoverable and would not be considered a realistic safety or security risk under this measure.

Verification: Losses or thefts of radioactive material greater than or equal to 1000 times the quantity specified in Appendix C, "Quantities of Licensed Material Requiring Labeling," to 10 CFR Part 20 must be reported (per 10 CFR 20.2201(a)) by telephone to the NRC Headquarters Operations Center or Agreement State immediately (interpreted as within 4 hours) if the licensee believes that an exposure could result to persons in unrestricted areas. If an event meeting the thresholds described above occurs, it would

<u>Appendix IV: Verification and Validation for NRC Measures and Metrics</u> 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 in 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 the form of a regulatory information summary (RIS 2005-21) to clarify the current 10 CFR 20.2201(d) requirement for reporting recovery of a risk-significant source. FSME asked the Agreement States to send copies of the RIS (or equivalent document) to their licensees. The NRC issued the National Source Tracking System 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 National Source Tracking System. 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 measure 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 follow-up.

Appendix IV: Verification and Validation for NRC Measures and Metrics 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, and/or an Agreement State to mitigate the situation and prevent recurrence.

• Number of substantiated cases of actual theft or diversion of licensed risksignificant radioactive sources or a formula quantity of special nuclear material or act that results in radiological sabotage is 0.

Verification: In Abnormal Occurrence 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 is defined in 10 CFR 70.4, "Definitions." Radiological sabotage is defined in 10 CFR 73.2, "Definitions." Licensees subject to the requirements of 10 CFR Part 73 must call the NRC within 1 hour of an occurrence to report any breaches of security or other event that may potentially lead to theft or diversion of material or to sabotage at a nuclear facility. The NRC's safeguards requirements are described in 10 CFR 73.71, "Reporting of Safeguards Events"; Appendix G, "Reportable Safeguards Events," to 10 CFR Part 73; and 10 CFR 74.11, "Reports of Loss or Theft or Attempted Theft or Unauthorized Production of Special Nuclear Material." The information assessment team composed of NRC headquarters 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 and/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.

• Number of substantiated losses of a formula quantity of special nuclear material or substantiated inventory discrepancies of a formula quantity of special nuclear material that are judged to be significant relative to normally expected performance or regulatory limits and that are judged to be caused by theft or diversion or substantial breakdown of the accountability system is 0.

Appendix IV: Verification and Validation for NRC Measures and Metrics

Verification: Licensees must record events associated with Abnormal Occurrence Criterion I.C.3 within 24 hours of the identified event in a safeguards log maintained by the licensee. The licensee must retain the log as a record for 3 years after the last entry is made or until termination of the license. The NRC relies on its safeguards inspection program to ensure the reliability of recorded data. The NRC makes a determination of whether a substantiated breakdown has resulted in a vulnerability to radiological sabotage, theft, diversion, or unauthorized enrichment of special nuclear material. 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 information technology system), or other indication of loss of material control or accountability–that cannot be refuted following an investigation. A formula quantity of special nuclear material is defined in 10 CFR 70.4. Events collected under this performance measure may indicate a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials. 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 determine whether a breakdown of a physical protection or material control and accounting system has actually resulted in vulnerability.

• 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 is 0.

Verification: The Abnormal Occurrence Criterion I.C.4, a "substantial breakdown" is defined as a red finding in the security cornerstone of the ROP or significant performance problems and/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 headquarters 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.

Appendix IV: Verification and Validation for NRC Measures and Metrics The licensee records breakdowns of physical protection resulting in a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials or radioactive waste within 24 hours in a safeguards log maintained by the licensee. The licensee must retain the log as a record for 3 years after the last entry is made or until termination of the license. Licensees subject to 10 CFR Part 73 must also meet the reporting requirements detailed in 10 CFR 73.71. The NRC evaluates all of the reported events based on the criteria in 10 CFR 73.71 and Appendix G to 10 CFR Part 73. The NRC also maintains and relies on its safeguards inspection program to ensure the reliability of recorded and reported data.

Validation: Events assessed under this performance measure 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 measure may indicate a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials 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 determine whether a breakdown of a physical protection or material control and accounting system has actually resulted in a vulnerability.

• Number of significant unauthorized disclosures (loss, theft, and/or deliberate acts) of classified and/or safeguards information is 0.

Verification: With regard to Abnormal Occurrence 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 of 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 the 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 Headquarters, which would assess the violation and notify other NRC offices and other government agencies, as appropriate. A determination would be made as to whether the compromise damaged the national Appendix IV: Verification and Validation for NRC Measures and Metrics security or public health and safety. Any unauthorized disclosures or compromises of classified or safeguards information that damaged the 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 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 measure 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 Headquarters. 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 measure are unauthorized disclosures of classified 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.

REPORT TO CONGRESS ON DRUG TESTING

The Congress and the U.S. Department of Health and Human Services (DHHS) initially approved the U.S. Nuclear Regulatory Commission's (NRC's) Drug Testing Plan in August 1988, and the agency subsequently updated the plan in November 1997. The plan was revised again and received approval from DHHS on August 23, 2007. The NRC's drug testing requirements for the nuclear industry, 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, followup, 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 positions as testing designated and thereby all employees became subject to random drug testing.

During fiscal year (FY) 2008, the NRC had approximately 2,000 employees occupying testing-designated positions subject to random testing. Potential selectees interviewed for positions in these categories were also subject to applicant testing. As of August 25, 2008, all NRC applicants were subject to a preemployment test.

The NRC conducted approximately 1,430 tests of all types between October 1, 2007, and September 30, 2008. There were no positive drug test results.

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 provided through E.O. 12564, Public Law 100-71, DHHS guidelines, and Commission decisions.

Appendix VI: Reimbursable Work Agreements

Appendix VI: Reimbursable Work Agreements

NRC performs services for other federal agencies and non-federal organizations on a reimbursable basis. Reimbursable work performed by NRC is financed with funds of the ordering organization and represents additional funding in excess of NRC's directly appropriated funds.

SUMMARY OF REIMBURSABLE WORK AGREEMENTS¹ (New Budget Authority)

	FY 2008	FY 2009 (Estimate)	FY 2010 (Estimate)
INTERNATIONAL ASSISTANCE TO FOREIGN GOVERNM	ENTS AND ORGA	NIZATIONS	
International Invitational Travel (IAEA & various foreign governments and international organizations)	\$105,000	\$110,000	\$115,000
Nuclear Safety Initiatives for the New Independent States (USAID) ²	\$1,900,000	\$1,417,000	\$1,250,000
ADMINISTRATIVE AGREEMENTS	ł		
Agreement States Training (State Governments)	\$58,000	\$0	\$0
Criminal History Program (Licensees)	\$3,383,000	\$3,552,000	\$3,730,000
Material Access Authorization Program (Licensees)	\$0	\$0	\$0
Information Access Authorization Program (Licensees)	\$875,000	\$875,000	\$901,000
Employee Details to Domestic Nuclear Detection Of- fice (DHS)	\$219,000	\$324,000	\$332,000
Employee Detail to National Counterterrorism Center (NCTC)	\$0	\$153,000	\$156,000
Invitational Travel – American Institute for Taiwan	\$5,000	\$15,000	\$15,000
OTHER AGREEMENTS		I	
Mars Science Laboratory - 2009 Project (NASA)	\$80,000	\$50,000	\$0
Office of Safety and Mission Assurance (OSMA) PRA Study (NASA)	\$100,000	\$0	\$0
Foreign Cooperative Research Agreements (Multiple)	\$995,000	\$1,000,000	\$1,000,000
Global Nuclear Energy Partnership (GNEP) Support (DOE)	\$850,000	\$0	\$0
Foreign Research Reactor Spent Nuclear Fuel (DOE)	\$0	\$0	\$750,000
Navy Reviews (U.S. Navy)	\$12,000	\$12,000	\$12,000
Gerald R. Ford Class Aircraft Carrier Safety Review (DOE)	\$0	\$25,000	\$130,000
Waste Actions for Hanford (DOE)	\$0	\$450,000	\$800,000
Next Generation Nuclear Plant Project in Idaho (NGNP) Licensing Strategy (DOE)	\$1,500,000	\$0	\$0
NGNP Cooperative Activities (DOE)	\$0	\$3,750,000	\$3,500,000
Joint Funding of ICRP Activities (EPA)	\$0	\$15,000	\$35,000
TOTAL	\$10,082,000	\$11,748,000	\$12,726,000

¹Does not include classified reimbursable work agreements.

² Budget authority provided by appropriation transfers.

Appendix VII: Discontinued Goals, Performance and Output Measures Appendix VII: Discontinued Goals, Performance and Output Measures

The U.S. Nuclear Regulatory Commission's (NRC's) fiscal year (FY) 2008–2013 Strategic Plan contains the two strategic goals of safety and security, while characterizing openness, effectiveness, and management elements of organizational excellence in support of the agency's goals. In order for the FY 2010 Performance Budget to be consistent with the Strategic Plan, the agencywide performance measures under the former goals of openness, effectiveness, and management are being discontinued and the FY 2008 actual results have been identified in the FY 2008 Performance and Accountability Report. For reporting purposes, the output measures will continue to be shown in this section of the budget through FY 2008.

NUCLEAR REACTOR REGULATION OUTPUT MEASURES

REACTOR OVERSIGHT AND INCIDENT RESPONSE ACTIVITY

<u>Output Measure</u>: Quality in completing investigations. FY 2007 Target - 90% of investigations will develop sufficient information to reach a conclusion regarding wrongdoing. FY 2007 Actual - 98.6% FY 2008 Target - 90% of investigations will develop sufficient information to reach a conclusion regarding wrongdoing. FY 2008 Actual – 98% Measure discontinued after FY 2008

<u>Output measure</u>: Negotiate/renew bilateral exchange arrangements between NRC and appropriate foreign counterparts to ensure that an effective framework for NRC's international exchanges is in place. FY 2007 Target - Negotiate/renew 3-6 arrangements.

FY 2007 Actual - Renewed arrangements with 6 countries.

FY 2008 Target - Negotiate/renew 3-6 arrangements.

FY 2008 Actual - Negotiated/renewed 9 arrangements.

Measure discontinued after FY 2008

Output Measure: Timeliness in completing assists to staff FY 2007 Target - 70% of assists to staff are concluded in < 90 days. FY 2007 Actual - 97.6% FY 2008 Target - 80% of assists to staff are concluded in <90 days. FY 2008 Actual – 98% Measure discontinued after FY 2008

MATERIALS AND WASTE PROGRAM OUTPUT MEASURES

FUEL FACILITIES ACTIVITY

Appendix VII: Discontinued Goals, Performance and Output Measures

<u>Output measure</u>: Timeliness in completing enforcement actions.

FY 2007 Target - Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time.

FY 2007 Actual – 100% completed for both types of cases.

FY 2008 Target – Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time

FY 2008 Actual – Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time Measure discontinued after FY 2008

NUCLEAR MATERIALS USERS ACTIVITY

<u>Output Measure</u>: Reviews of Executive Branch proposed Part 810 licenses FY 2007 Target - Complete staff reviews within 60 days for all cases involving non-nuclear weapon states. FY 2007 Actual - Completed 5 staff reviews, all within the 60 day goal. FY 2008 Target - Complete staff reviews within 60 days for all cases involving non-nuclear

weapon states.

FY 2008 Actual – Completed 5 staff reviews, all within the 60 day goal.

Measure discontinued after FY 2008

<u>Output measure</u>: Materials investigations. Quality in completing investigations.

FY 2007 Target - 90% of investigations will develop sufficient information to reach a conclusion regarding wrongdoing.

FY 2007 Actual - 92.9%

FY 2008 Target - 90% of investigations will develop sufficient information to reach a conclusion regarding wrongdoing.

FY 2008 Actual - 100%

Measure discontinued after FY 2008

<u>Output Measure</u>: Reviews of Executive Branch subsequent arrangements. FY 2007 Target - Complete staff reviews within 60 days for all cases involving non-nuclear weapon states.

FY 2007 Actual – Completed 8 staff reviews, all within the 60 day goal.

FY 2008 Target - Complete staff reviews within 60 days for all cases involving non-nuclear weapon states.

FY 2008 Actual- Completed 3 staff reviews, all within the 60 day goal. Measure discontinued after FY 2008

<u>Output Measure</u>: Timeliness in completing assists to staff. FY 2007 Target - 70% of assists to staff are concluded in < 90 days. FY 2007 Actual - 86.7% FY 2008 Target - 80% of assists to staff are concluded in < 90 days. FY 2008 Actual- 93.8% Measure discontinued after FY 2008

HIGH-LEVEL WASTE REPOSITORY ACTIVITY

Appendix VII: Discontinued Goals, Performance and Output Measures

<u>Output Measure</u>: Resolve key technical issues (KTI) developed during pre-licensing FY 2007 Target - Resolution of KTI and pre-closure concerns meets staff timeliness and quality goals.

FY 2007 Actual - Met target

FY 2008 Target - Resolution of KTI and pre-closure concerns meets staff timeliness and quality goals. Note- Will sunset after receipt of a license application

FY 2008 Actual – Met target, EPA did not publish a final standard in FY 2008 Measure discontinued after FY 2008

<u>Output Measure</u>: Regulation and guidance necessary to make a decision on DOE repository license application will be planned and executed such that the decision can be made on time. FY 2007 Target - Publish a final 10 CFR Part 63 no more than 6 months after EPA publishes a final revised standard in the Federal Register.

FY 2007 Actual - Met target

FY 2008 Target - Modify the Yucca Mountain Review Plan no more than 6 months after final 10 CFR Part 63, consistent with EPA's final revised 40 CFR Part 197 published in the Federal Register.

FY 2008 Actual - Met target, EPA did not publish a final standard in FY 2008 Measure discontinued after FY 2008

<u>Output Measure</u>: Ensure that NRC's high-level waste documentary material is made electronically available in compliance with Part 2, Subpart J, and Pre-License Application Presiding Officer and Commission orders.

FY 2007 Target - Ensure supplementation of the NRC high-level waste document collection to the LSN in accordance with established requirements.

FY 2007 Actual - Met target

FY 2008 Target – Ensure supplementation of the NRC high-level waste document collection to the LSN in accordance with established requirements.

FY 2008 Actual - Met target

Measure discontinued after FY 2008

<u>Output Measure</u>: Ensure that HLW Meta-System service level requirements for availability and reliability are met, and that information technology information management systems and business processes are in place to support pre-license application, pre-hearing, or hearing activities on the proposed Yucca Mountain repository.

FY 2007 Target - The HLW Meta-System will be operational for the HLW licensing and adjudicatory business process in accordance with established service levels.

FY 2007 Actual - Met target

FY 2008 Target – The HLW Meta-System will be operational for the HLW licensing and adjudicatory business process in accordance with established service levels.

FY 2008 Actual - Met target

Measure discontinued after FY 2008

<u>Output Measure</u>: Independent technical advice on adjudicatory and non-adjudicatory matters; monitor implementation of the LSN. FY 2007 Target - Maintain existing infrastructure FY 2007 Actual - Met target FY 2008 Target - Maintain existing infrastructure FY 2008 Actual - Met target Appendix VII: Discontinued Goals, Performance and Output Measures Measure discontinued after FY 2008

<u>Output measure</u>: Timeliness in completing enforcement actions. FY 2007 Target - Investigation cases: 100% completed within 360 days of OE processing time; non-Investigation cases: 100% completed within 180 days of OE processing time. FY 2007 Actual - N/A. No licenses received in FY 2007 FY 2008 Target - Investigation cases: 100% completed within 360 days of OE processing time; non-Investigation cases: 100% completed within 180 days of OE processing time; FY 2008 Actual - Met target Measure discontinued after FY 2008

DECOMMISSIONING AND LOW-LEVEL WASTE ACTIVITY

<u>Output Measure</u>: Maintenance of regulatory framework for low-level waste disposal. FY 2007 Target - Provide technical assistance to requesting Agreement States 95% of the time within agreed upon schedule. Complete 1 programmatic improvement identified in the FY 2007 LLW Strategic Assessment. Complete licensing actions as scheduled in the Environmental Protection and Performance Assessment Operating Plan.

FY 2007 Actual - Met target

FY 2008 Target – Provide technical assistance to requesting Agreement States 95% of the time within agreed upon schedule; complete 1 programmatic improvement identified in the FY 2007 LLW Strategic Assessment; complete licensing actions as scheduled in the Environmental Protection and Performance Assessment Operating Plan.

FY 2008 Actual - Met target

Measure discontinued after FY 2008

INFRASTRUCTURE SUPPORT PROGRAM OUTPUT MEASURES

INFORMATION TECHNOLOGY AND INFORMATION MANAGEMENT

<u>Output Measure</u>: Percent of agency enterprise architecture (EA) data aligned with OMB guidance. FY 2007 Target - 80% of agency EA data aligned. FY 2007 Actual - 100% FY 2008 Target - 90% of agency EA data aligned. FY 2008 Actual - 90% Measure discontinued after FY 2008

<u>Output Measure</u>: Network security will respond to any new network security vulnerability upon discovery. FY 2007 Target - Respond within 24 hours FY 2007 Actual – 100% within 12 hours FY 2008 Target - Respond within 12 hours FY 2008 Actual – 100% with 12 hours Measure discontinued after FY 2008

<u>Output Measure</u>: All operational NRC major applications and general support systems meet the requirements of Management Directive (MD) 12.5, "NRC Automated Information Systems Program," including system security plans, contingency plans, and Appendix VII: Discontinued Goals, Performance and Output Measures

certification and accreditation. (Note-Certification and Accreditation will be tracked under Appendix III, Information Technology and Information Management section, beginning in FY 2009.)

FY 2007 Target – 100% of systems meet MD 12.5 requirements FY 2007 Actual - 38% FY 2008 Target - 90% of systems meet MD 12.5 requirements FY 2008 Actual - 100% of the systems scheduled to be C&A in 2008 were granted ATO Measure discontinued after FY 2008.

<u>Output Measure</u>: Ensure that system investments are effective, efficient, and realistic. FY 2007 Target - Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case. (Note: A broader measure based on OMB Exhibit 300 scores will be tracked in Appendix III under Information Technology and Information Management beginning in FY 2009.)

FY 2007 Actual - 85.7%

FY 2008 Target - Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case

FY 2008 Actual – Within 100% - 14 of 15 met their cost, schedule and performance targets Measure discontinued after FY 2008.

<u>Output Measure</u>: Conduct a user satisfaction survey for ADAMS FY 2007 Target - Score at least 3 on a scale of 1-4 FY 2007 Actual - 2.52 FY 2008 Target - Not applicable (biannual survey – no survey in FY 2008) FY 2008 Actual – Not applicable (biannual survey – no survey in FY 2008) Measure discontinued after FY 2008.

FINANCIAL MANAGEMENT

<u>Output Measure</u>: Complete Program Assessment Rating Tool (PART) evaluations according to agency-approved schedule FY 2007 Target - Complete PART evaluations by June 2007 for High-Level Waste Repository subprogram. FY 2007 Actual - Completed in June 2007. FY 2008 Target - Reactor Inspection and New Reactor Licensing (proposed) FY 2008 Actual – Met target Measure discontinued after FY 2008

<u>Output Measure</u>: Submit and publish the triennial Strategic Plan to Congress and OMB on time.

FY 2007 Target - Submit and publish FY 2007-FY 2012 Strategic Plan August 11, 2007 FY 2007 Actual – Plan is expected to be published by end of January 2008 due to Commission delaying decisions for final approval. Measure discontinued after FY 2008

<u>Output Measure</u>: Publish Final Fee Rule FY 2007 Target - Proposed rule mid-March 2007, final rule mid-June 2007. Appendix VII: Discontinued Goals, Performance and Output Measures

FY 2007 Actual – Completed. Proposed fee rule published by March 2007 and final fee rule published by mid-June 2007.

FY 2008 Target – Proposed rule mid-March, final rule mid-June.

FY 2008 Actual – Proposed Fee Rule published on February 13, 2008

- Final Fee Rule published on June 6, 2008

Measure discontinued after FY 2008

Appendix VIII: Estimated Fees

Assuming a full appropriation of the FY 2010 requested budget, the projected impact on fees are shown below.

NRC BUDGET AND FEE RECOVERY AMOUNTS (Dollars in Millions)

	FY 2008 Fina Fee Rule	FY 2009 Proposed Fee Rule ⁴	FY 2010 Projection ⁵
Total Appropriation ¹	\$926.	1 \$1,069.8	\$1,071.1
Less Non-Fee Items ²	-60.	4 -102.4	-85.3
Base	865.	7 967.4	985.7
Fee Recovery Rate 90% of Base	779.	1 870.6	887.2
Billing & Carryover Adjustments ³	-18	4 -5.8	-5.8
Amount to be Recovered through Fees	\$760.	7 \$864.8	\$881.4
Estimated Part 170 Fees	\$291.	8 \$320.2	\$326.3
Percent of total recovered amount	38.4	% 37.0%	37.0%
Estimated Part 171 Annual Fees	\$468.	9 \$544.6	\$555.0
Percent of total recovered amount	61.69	63.0%	63.0%

¹ Includes both Salaries and Expenses Appropriation and Inspector General Appropriation

²Non-Fee Items:

Nuclear Waste Fund (NWF) ⁶	\$29.0	\$73.3	\$56.0
Waste Incidental to Reprocessing (WIR)	2.0	2.0	2.1
Generic Homeland Security	29.4	27.1	27.2
Total Non-Fee Items	\$60.4	\$102.4	\$85.3

³ Includes estimated unpaid invoices and payments of prior year invoices

⁴ Published in the Federal Register (74 FR 9129), based on H.R. 7324 dated June 25, 2008 - Enacted funding reduced NWF to \$49 million. The final rule is expected to be published in the Federal Register before the end of June 2009.

⁵ Assuming same rate as FY 2009 for Adjustments and split between Part 170 and 171

⁶ The NRC resources available for the High-Level Waste (HLW) repository review remain essentially flat from FY 2008 – FY 2010. Resources in FY 2008 included \$27 million in funding from prior years in addition to the \$29 million from the enacted budget (\$56 million total). Resources available in FY 2009 include \$10 million in funding from prior years in addition to the \$49 million from the enacted budget (\$59 million total). Total resources available in FY 2010 will be \$56 million with no prior year funds anticipated.

Appendix IX: Goals, Performance Measures, and Program Crosswalk Appendix IX: Goals, Performance Measures, and Program Crosswalk

The following table shows the relationship between the agency's goals, performance measures, and its eight subprograms. For example, the subprograms that the strategic outcome of "prevent the occurrence of any nuclear reactor accidents" relates to are the New Reactors, Reactor Licensing Tasks, and Reactor Oversight subprograms. The strategic outcome of "prevent the occurrence of any inadvertent criticality events" relates to all of the agency's subprograms. Each program evaluates event reports and other pertinent data¹ to report the results for each strategic outcome, performance measure, and output measure.

	NRC Programs								
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel	
Strategic Outcomes									
Prevent the oc- currence of any nuclear reactor accidents.	х	х	х						
Prevent the occur- rence of any inad- vertent criticality events.	х	х	х	Х	Х	х	Х	х	
Prevent the occur- rence of any acute radiation expo- sures resulting in fatalities.	х	х	Х	х	х	х	Х	х	
Prevent the oc- currence of any releases of radioac- tive materials that result in significant radiation expo- sures.	Х	Х	Х	Х	Х	Х	Х	Х	
Prevent the oc- currence of any releases of radioac- tive materials that cause significant adverse environ- mental impacts.	Х	Х	Х	Х	Х	X	Х	X	

Goals, Performance Measures, and Program Crosswalk: - Safety

¹ Complete information on data measurement for each strategic outcome and performance measure can found in the Verification and Validation of NRC Measures and Metrics appendix in this document.

Appendix IX: Goals	, Performance Measures,	and Program Crosswa	lk
	· · · · · · · · · · · · · · · · · · ·		

	NRC Programs								
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel	
Performance Measur	res								
Number of new conditions evalu- ated as red by the NRC's reactor oversight process.			х						
Number of signifi- cant accident se- quence precursors (ASPs) of a nuclear reactor accident.			Х						
Number of operat- ing reactors whose integrated perfor- mance entered the Manual Chapter 0350 process, the multiple/repetitive degraded cor- nerstone column or the unaccept- able performance column of the ROP Action Matrix.			Х						
Number of signifi- cant adverse trends in industry safety performance.			х						
Number of events with radiation exposures to the public or occupa- tional workers that exceed Abnormal Occurrence Crite- rion I.A.	Х	Х	Х	Х	Х	Х	Х	Х	
Number of radio- logical releases to the environment that exceed ap- plicable regulatory limits.	X	Х	X	X	X	Х	Х	Х	

Appendix IX: Goals	, Performance Measures,	and Program Crosswalk
1 1		

				NRC	Programs		0	
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel
Output Measures								
Review early site permit applications on the schedules negotiated with the applicants.	х							
Review design certification ap- plications on the schedules negoti- ated with the ap- plicants.	X							
Review combined license (COL) ap- plications on the schedules negoti- ated with the ap- plicants.	X							
Construction and Vendor Inspection Program	x							
Licensing actions completed per year.		Х						
Age of licensing action inventory, except for license renewal and iSTS conversions.		Х						
Other licensing tasks completed per year.		Х						
Age of Other Licensing Task Inventory.		Х						
Timeliness of completing actions on critical research programs.		х						
Acceptable techni- cal quality of agency research technical products.		Х						
Completion of license renewal ap- plication reviews		Х						
Number of operator licens- ing examinations administered		Х						

	NRC Programs								
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel	
Number of plants for which the baseline inspec- tion program was completed during the most recently ended inspection cycle.			Х						
Timeliness of Significance Deter- mination Process (SDP) evaluations.			х						
Time to complete reviews of techni- cal allegations.			Х						
Timeliness in com- pleting enforce- ment actions.			Х						
Reactor investi- gations output measures: Timeli- ness in completing investigations - Target 1.			Х						
Timeliness in com- pleting investiga- tions - Target 2.			Х						
Emergency Response Perfor- mance Index.			Х						
Timeliness of fuel cycle licensing actions (amend- ments, renewals, new applications, and reviews) from the date of accep- tance (for licensing actions received after October 1, 2000).				Х					
Number of fuel cycle licensing actions (amend- ments, renewals, new applications, and reviews) from the date of accep- tance completed per year.				Х					

The second secon								
				NRC	Programs			
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel
Timeliness of com- pleting "complex" fuel cycle licensing actions				X				
Timeliness of com- pleting "non-com- plex" fuel cycle licensing actions				Х				
Timeliness of Safety and Safe- guards inspection modules.				Х				
Timeliness of completing "new application" fuel cycle (10 CFR Part 40 and 10 CFR Part 70) licensing actions				Х				
Safety and safe- guards inspection module.				х				
Timeliness of Safety and Safe- guards inspection modules.				Х				
Timeliness in com- pleting reviews for technical Allega- tions.				Х				
Percentage of Ma- terials and Waste rulemaking activi- ties completed on schedule.					х			
Timeliness of li- censing actions- re- view of application for new materials licenses and license amendments					Х			
Timeliness of licensing actions - reviews of applica- tion for materials license renewals and sealed source and device designs.					Х			
Timeliness of safety inspec- tions of materials licensees.					Х			

	NRC Programs								
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel	
Timeliness in com- pleting investiga- tions - Target 1.					Х				
Timeliness in com- pleting investiga- tions - Target 2.					Х				
Timeliness in com- pleting enforce- ment actions.					Х				
Timeliness in completing re- views for technical allegation.s					Х				
Issuances of NRC import/export authorizations.					Х				
After receipt of a license application, major milestones are completed on time.						х			
High-Level Waste Repository Resolu- tion License Appli- cation Review.						х			
Timeliness in com- pleting reviews for technical allega- tions						х			
Clean-up complex materials, fuel cycle sites, and power reactors; complete uranium recovery licensing actions.							Х		
Support program licensing activi- ties by preparing and/or reviewing required environ- mental reports.							Х		
DOE waste inci- dental to reprocess- ing (WIR) reviews completed.							Х		

				NRC	Programs			
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel
Eliminate the need for an environmen- tal assessment for certain decommis- sioning licensing actions by incorpo- rating them by rule as actions that only require a categori- cal exclusion.							Х	
Complete trans- portation container design reviews within timeliness goals.								х
Complete stor- age container and installation design reviews within timeliness goals.								х
Number of inspec- tions completed.								Х
Timeliness of completing actions on critical research programs.								х
Acceptable techni- cal quality of agency research technical products.								Х

Appendix IX: Goals, Performance Measures, and Program Crosswalk Goals, Performance Measures, and Program Crosswalk: - Security

				NRC I	Programs			
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decommissioning & LLW	Spent Fuel
Strategic Outcome	es							
No instances where licensed radioactive ma- terials are used domestically in a manner hostile to the security of the United States.	x	X	Х	x	X	x	X	X
Performance Meas	sures							
Unrecovered losses of risk-sig- nificant radioac- tive sources.	х	x	x	Х	х	х	X	x
Number of sub- stantiated cases of actual theft or diversion of licensed, risk- significant radio- active sources or formula quanti- ties of special nuclear material; or attacks that result in radio- logical sabotage.	X	X	X	X	Х	x	X	X
Number of substantiated losses of formula quantities of special nuclear material or sub- stantiated inven- tory discrepan- cies of formula quantities of special nuclear material that are judged to be caused by theft or diversion or by substantial breakdown of the accountabil- ity system.	X	X	X	X	Х	x	X	X

	<u>ř</u>		00000071		ice measu	2007 012		00110000
Number of substantial breakdowns of physical security or mate- rial control (i.e., access control, containment, or accountability systems) that significantly weakened the protection against theft, diversion, or sabotage.	x	X	X	x	X	X	Х	X
Number of significant unauthorized disclosures of classified and/ or safeguards information.	X	X	X	X	X	Х	Х	X
Output Measures								
Complete the full cycle of force on force inspections as scheduled (all applicable fa- cilities inspected over three year time frame).			Х					

Endnotes

- 1. This measure is the number of new red inspection findings during the fiscal year plus the number of new red performance indicators during the fiscal year. Programmatic issues at multi-unit sites that result in red findings for each individual unit are considered separate conditions for purposes of reporting for this measure. A red performance indicator and a red inspection finding that are due to an issue with the same underlying causes are also considered separate conditions for purposes of reporting for this measure. 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 Reactor Oversight Process (ROP) external web page was updated to show the red indicator.
- 2. Significant Accident Sequence Precursor (ASP) events have a conditional core damage probability (CCDP) or ΔCDP of > 1x 10-3. Such events have a 1/1000 (10-3) 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. One event was identified in FY 2002 as having the potential of being a significant precursor. This precursor involved reactor pressure vessel head degradation at Davis-Besse. The detailed ASP Program preliminary analysis of this complex event was completed in September 2004. Based on the screening and engineering evaluation of FY 2002, FY 2003, and FY 2004 events, no other potentially significant precursor were identified. Therefore, the second performance measure was not exceeded for FY 2002, FY 2003, and FY 2004.
- 3. This measure is the number of plants that have entered the Manual Chapter 0350 process, 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 measure is 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 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. Considering all indicators qualified for use in reporting.
- 5. Beginning in FY 2005, this measure is based upon Abnormal Occurrence (AO) Criterion 1.A. Prior to FY 2005, the criterion was based upon a higher threshold of significant functional damage to organs or physiological systems. Using the pre-FY 2005 criteria, NRC reported zero events through FY 2004. However, it should be noted

End Notes

that if the FY 2005 performance measure, based upon AO Criterion 1.A., had been in place in FY 2003, two materials events would have been reported for that fiscal year.

- 6. Releases for which a 30-day report requirement under 10 CFR 20.2203(a)(3) is required.
- 7. With no event exceeding AO Criterion 1.B.1.
- 8. "Risk-significant" is defined as any unrecovered lost or abandoned sources that exceed the values listed in "Appendix P to 10 CFR Part 110--High Risk Radioactive Material, Category 2." 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 of 10 CFR 39.77(c); (2) recovered sources with sufficient indication that doses in excess of the reporting thresholds specified in AO criterion I.A.1 and I.A.2 did not occur during the time the source was missing; (3) unrecoverable sources lost under such conditions that doses in excess of the reporting thresholds specified in AO criterion 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) sources for which the agency has made a determination that the risk-significance of the source is low based upon the location (e.g. water depth) or physical characteristics (e.g. half life, housing) of the source and its surroundings; (6) where all reasonable efforts have been made to recover the source; and (7) it has been determined that the source is not recoverable and will not be considered a realistic safety or security risk under this measure.
- 9. "Substantiated" means a situation where 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.
- 10. A formula quantity of special nuclear material is defined in 10 CFR 70.4.
- 11. "Radiological sabotage" is defined in 10 CFR 73.2.
- 12. Security goal performance measures 2, 3, and 4 together encompass the discontinued performance measure "Number of security events and incidents that exceed the Abnormal Occurrence Criterion I.C 2-4" to provide greater clarity and detail.
- 13. A "substantial breakdown" is defined as a red finding in the security inspection program, or any plant or facility determined to have overall unacceptable performance or in a shutdown condition (inimical to the effective functioning of the nation's critical infrastructure) as a result of significant performance problems and/or operational events.

- 14. "Significant unauthorized disclosure" is defined as a disclosure that harms national security or public health and safety.
- 15. OIG products are issued OIG reports. For the audit unit, these are audit reports and evaluations. For the investigative unit, these are investigations, Event Inquiries, and special inquiries. Activities are the OIG hotline or proactive investigative reports.
- 16. 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.
- 17. 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, and 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.
- 18. During FY 2006, three recommendations involving byproduct materials were not agreed to by the agency. These recommendations have since been resolved and are in the process of being implemented.
- 19. Measure will change from final agency action within 1 year on audit recommendations to 2 years on audit recommendations starting in FY 2010.
- 20. During FY 2007, five recommendations involving three separate audit reports on byproduct materials licensing, Probabilistic Risk Assessment, and the National Source Tracking System respectively have taken longer for the agency to implement.
- 21. Measure will change from final agency action within 1 year on audit recommendations to 2 years on audit recommendations starting in FY 2010.
- 22. Majority of these audit recommendations dealt with FISMA and a specific computerbased security program that will take a lengthy time to complete final actions. For example, the agency will not be able to complete its FISMA related certification and accreditation efforts before 2009.
- 23. During FY 2007, 11 recommendations involving 3 separate audit reports on baseline security, Nuclear Security and Incident Response, and the Integrated Personnel Security System, respectively, have taken longer for the agency to implement.

- 24. Measure changed from final agency action within 1 year on audit recommendations to 2 years on audit recommendations starting in FY 2010.
- 25. Final action on recommendations in the Financial Statements audit took 16 months to complete.
- 26. Majority of these audit recommendations pertain to the Technical Training Center audit recommendations audit that took longer for the agency to implement.
- 27. Performance measure was determined to be ineffective since another NRC program office was primarily responsible for ensuring completion of action with minimal activity from year to year and will be removed starting in FY 2010.

ACRONYMS

EXECUTIVE SUMMARY

Acronym	Definition
CFR	Code of Federal Regulations
COL	Combined Operating Licenses
DC	Design Certification
EPU	extended power uprates
FTE	Full-Time Equivalent
FY	Fiscal Year
HLW	High-Level Waste
IAEA	International Atomic Energy Agency
ISTS	Improved Standard Technical Specifications
ISFSI	independent spent fuel storage installations
NEA	Nuclear Energy Agency
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
NWF	Nuclear Waste Fund
OIG	Office of the Inspector General
S&E	Salary and Expenses
WBL	Web-Based Licensing

PROPOSED FY 2010 APPROPRIATIONS LEGISLATION

Definition

AEC	Atomic Energy Commission
DOE	U.S. Department of Energy
FY	Fiscal Year
NRC	U.S. Nuclear Regulatory Commission
P.L.	Public Law
U.S.C	Unites States Code

NUCLEAR REACTOR SAFETY

Acronym	Definition
ACRS	Office of the Advisory Committee on Reactor Safeguards
B&W	Babcock and Wilcox
CFR	Code of Federal Regulations
COL	Combined Operating Licenses
CY	Calendar Year

Acronyms	
DC	Design Certification
DOE	U.S. Department of Energy
EIS	Environment Impact Statement
EP	Emergency Preparedness
EPR	Evolutionary Power Reactor
EPU	Extended Power Uprates
ESBWR	Economic Simplified Boiling Water Reactor
ESP	Early-Site Permits
FEMA	Federal Emergency Management Agency
FOIA	Freedom of Information Act
FSER	Final Safety Evaluation Report
FTE	Full-Time Equivalent
FY	Fiscal Year
GALL	Generic Aging and Lessons Learned
GEIS	Generic Environmental Impact Statement
GNEP	Global Nuclear Energy Project
HEU	High-Enriched Uranium
I&C	Digital Instrumentation and Control Research
IAEA	International Atomic Energy Agency
iSTS	improved Standard Technical Specifications
ITAAC	inspections, tests, analyses, and acceptance criteria
KI	Potassium Iodide
LEU	Low Enriched Uranium
LWR	Light Water Reactor
MILES	Multiple Integrated Laser Engagement System
MPA	Multi-Plan Actions
NEA	Nuclear Energy Agency
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
NUREG	NRC Publication
OE	Office of Enforcement
OI	Office of Investigations
ROP	Reactor Oversight Program
SEIS	Supplement Environmental Impact Statement
SER	Safety Evaluation Report
TVA	Tennessee Valley Authority
US APWR	Advanced Pressurized Water Reactor

NUCLEAR MATERIALS AND WASTE SAFETY

Definition

Acronym

B&WNOG	B&W Nuclear Operations Group
CFR	Code of Federal Regulations
DEIS	Draft Environmental Impact Statement

DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FTE	full-time equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GEIS	Generic Impact Statement
HLW	High-Level Waste
ISA	Integrated Safety Assessment
ISFSI	independent spent fuel storage installations
MOX	Mixed Oxice
NARM	Naturally-occurring and Accelerator-produced
	Radioactive Materials
NAS	National Academy of Sciences
NMSS	Office of Nuclear Materials Safety and Safeguards
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
NUREG	NRC Publication
OE	Office of Enforcement
OI	Office of Investigations
OMB	Office of Management and Budget
PATRAM	Packing and Transportation of Radioactive Materials
SRP	Standard Review Plan
SRS	System Requirements Specification
WBL	Web-Based Licensing
WIR	Waste Incidental to Reprocessing

PERFORMANCE MEASUREMENTS

Acronym Definition	
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ASP	Accident Sequence Precursors
FY	Fiscal Year
NRC	U.S. Nuclear Regulatory Commission
PBPM	Planning, Budgeting and Performance Management
ROP	Reactor Oversight Program

OFFICE OF THE INSPECTOR GENERAL

Acronym	Definition
ARMR	Association of Radioactive Metal Recyclers
FAR	Federal Acquisition Regulation

Acronyms	
FTE	Full-time Equivalent
FY	Fiscal Year
IG	Inspector General
IMPEP	Integrated Materials Performance Evaluation Program
MIS	Management Information System
NMED	Nuclear Material Evidence Database
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
OIG	Office of the Inspector General
OMB	Office of Management and Budget
SAIC	Science Applications International Corporation

APPENDIX I: Budget Authority by Function

Acronym	Definition
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FTE FY NRC OIG	Full-time Equivalent Fiscal Year U.S. Nuclear Regulatory Commission Office of the Inspector General
OIG	Office of the Inspector General
S&E	Salaries and Expenses

APPENDIX II: Homeland Security

Acronym	Definition
FY	Fiscal Year
FTE	full-time equivalent
USC	United States Code

APPENDIX III: Infrastructure Support

Acronym Definition

ADAMS	Agencywide Documents Access and Management System
COL	Combined operating License
EIE	Electronic Information Exchange
E-GOV	Electronic Government program
FAIR	Federal Activities Inventory Revorm
FFD	Fitness for Duty
FOIA	Freedom of Information Act and Privacy Act
FTE	full-time equivalents
FY	Fiscal Year
HQ	Headquarters
IPT	Infrastructure Planning Team
	-

IT	Information Technology
KM	Knowledge Management
LAN	Local Area Network
NRC	U.S. Nuclear Regulatory Commission
OMB	Office of Management and Budget
OPM	Office of Personnel Management
PARS	Publicly Available Records System
PII	Personally Identifiable Information
SUNSI	Sensitive Unclassified Non-Safeguards Information

APPENDIX IV: Verification and Validation of NRC's Measures and Metrics

Acronym	Definition
ALARA	As Low As Reasonably Achievable
AO	Abnormal Occurrence
ASP	Accident Sequence Precursor Database
CCDP	conditional core damage probability
CFR	Code of Federal Regulations
CRCPD	Conference of Radiation Control program Directors
FSME	Office of Federal and State Materials and Environmental Materials
FY	Fiscal Year
IMPEP	Integrated Materials Performance Evaluation Program
LER	Licensee Event Report
LERSearch	Licensee Event Report Search System
NMED	Nuclear Material Events Database
NMSS	Office of Material Safety and Safeguards
NRC	U.S. Nuclear Regulatory Commission
NUREG	NRC Publication
ROP	Reactor Oversight Process
SCSS	Sequence Coding and Search System
SDP	Significant Determination Process

APPENDIX V: Report on Drug Testing

Acronym	Definition
DHHS	U.S. Department of Health and Human Services
E.O.	Executive Order
FY	Fiscal Year
NRC	U.S. Nuclear Regulatory Commission

Acronyms

APPENDIX VI: Reimbursable Work Agreements

Acronym	Definition
DHS DOE	U.S. Department of Homeland Security U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
GNEP IAEA	Global Nuclear Energy Partnership International Atomic Energy Agency
NASA	National Aeronautics and Space Administration
NGNP OSMA	Next Generation Nuclear Plant Ohio State Medical Association
USAID	U.S. Agency for International Development

APPENDIX VII: Discontinued Goals, Performance and Output Measures

Acronym	Definition
ADAMS	Agencywide Documents Access and Management System
ATO	Authority to Operate
C&A	System Certification & Accreditation
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EA	enterprise architecture
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
HLW	High-Level Waste
KTI	Key Technical Issues
LSN	Licensing Support Network
MD	Management Directive
NRC	U.S. Nuclear Regulatory Commission
OE	Office of Enforcement
OMB	Office of Management and Budget
PART	Program Assessment Rating Tool

APPENDIX VIII: Estimated Fees

Acronym

FR	Federal Regulation
FY	Fiscal Year
NRC	U.S. Nuclear Regulatory Commission
NWF	Nuclear Waste Fund
WIR	Waste Incidental to Reprocessing

Definition

APPENDIX IX: Goals, Performance Measures, and Program Crosswalk

Acronym	Definition
ASP	Accident Seguence Producero
	Accident Sequence Precursors
CFR	Code of Federal Regulations
COL	Combined Operating Licenses
DOE	U.S. Department of Energy
iSTS	improved Standard Technical Specifications
ROP	Reactor Oversight Program
SDP	Significant Determination Process
WIR	Waste Incidental to Reprocessing

Acronyms

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