





### **NUREG-1100 VOLUME-24**

# PERFORMANCE BUDGET **FISCAL YEAR** 2009

## February 2008

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#### 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.

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 2007. 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 radioactive fuel used in nuclear power plants, to the 104 nuclear 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 U.S. Nuclear Regulatory Commission's (NRC's) Agreement State program, 34 states have assumed regulatory responsibilities for overseeing the activities of industrial, medical, and certain smaller users 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**

This fiscal year (FY) 2009 budget request reflects a increase in the agency's regulatory activities, driven primarily by an anticipated interest in constructing new nuclear power facilities, oversight of existing reactors, and materials and waste licensing. The agency expects to review 21 uranium recovery applications, which produce the raw materials for nuclear fuel, to receive two applications for new facilities that will enrich uranium to produce the nuclear fuel used in reactors, and to receive an application from the Department of Energy (DOE) to construct and operate a geologic repository at Yucca Mountain in Nevada. During FY 2008, the agency expects to initiate the review of 14 Combined Operating Licenses (COL) applications. During FY 2009, acceptance reviews are anticipated to be performed on seven additional COLs. Commencement of the reviews of these seven COL applications will occur within an 8-month timeframe following the acceptance of the applications. It is the agency's responsibility to review the applications in a timely manner so that our licensees will be able to build and operate facilities that produce electricity needed for our Nation's economic growth. To fund these license application reviews, as well as the many other activities necessary to meet the agency's mission, the agency requests \$1.02 billion for FY 2009.

#### Financing the NRC's Budget

The NRC is primarily financed through user fees paid by the agency's applicants and licensees. By statute, the NRC recovers approximately 90 percent of its budget through user fees. This 90 percent fee recovery requirement applies to the NRC's total budget less appropriations from the Nuclear Waste Fund, appropriations to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act (NDAA), and to conduct generic homeland security activities. As a result, the NRC's FY 2009 budget request will be financed with \$855.5 million from user fees, \$124.2 million from the General Fund, and \$37.3 million from the Nuclear Waste Fund, as shown in the table below.

NRC FINANCING (Dollars in Millions)								
	FY 2007	FY 2008	FY 2009					
Budget Authority	\$824.9	\$926.1	\$1,017.0					
Offsetting Fees	669.3	779.1	855.5					
Net Appropriated								
Nuclear Waste Fund	45.8	29.0	37.3					
General Fund (Off Fee Base)	109.8	118.0	124.2					
Total Net Appropriated <sup>1</sup>	\$155.6	\$147.0	\$161.5					

<sup>1</sup> Numbers may not add due to rounding.

#### **Budget Highlights**

The agency's total proposed budget is \$1.02 billion for FY 2009, which is an increase of \$90.9 million over the FY 2008 enacted level. Significant changes include:

• **New Nuclear Facilities:** An increase of approximately \$10.6 million supports regulatory and other support activities in the areas of new reactors, fuel facilities, and uranium recovery facilities.

Of the total increase in this area, \$3.1 million is for the New Reactors sub-program. These resources primarily support the development and implementation of the Construction and Vendor Inspection program and the reactivation of licensing and construction oversight for Watts Bar Unit 2.

Of the remaining increase for nuclear resurgence activities, \$2.7 million supports the review of two new fuel (uranium enrichment) facility applications, and \$4.8 million is for the safety and environmental reviews of new uranium recovery applications, restarts, and expansions of existing facilities.

• **Oversight of Existing Reactors:** Regulatory oversight of existing reactors accounts for \$42.9 million of the NRC's total FY 2009 budget increase. The vast majority of this increase occurs in the following reactor sub-programs: Reactor Licensing Tasks (\$12.0 million), Reactor Oversight (\$16.1 million), and Reactor License Renewal (\$10.9 million). Reactor Licensing Tasks: Resource increases support the review of extended power

uprate applications, the expected licensing activities associated with the transition of reactor sites to the National Fire Protection Association (NFPA) Standard 805, regulatory guides on fire protection and probabilistic risk assessment, replacement of the reactor program system, fire safety research, and forward-looking research focused on the high-priority activities in the Integrated Research Plan.

<u>Reactor Oversight</u>: Resource increases primarily support the Reactor Inspections activity, enforcement-related activities to include safety culture and safety conscious work environment initiatives, the review of licensees' plans required by the new Part 73, license renewal inspections, and enhancement of the security inspection program.

<u>Reactor License Renewal</u>: Resource increases primarily support the review of five new license renewal applications for six units at five sites based on the industry schedule. In addition, resources increase to support the revision of the Generic Environmental Impact Statement, including the associated guidance documents, and the update of other license renewal guidance documents and the Generic Aging Lessons Learned report.

- **High-Level Waste:** Resources increase for High-Level Waste (HLW) activities by \$8.3 million in the FY 2009 budget request. The budget assumes that the Department of Energy will submit its license application for the geologic repository at Yucca Mountain in June 2008. The HLW sub-program funds will support the review of that license application. The agency will strive to meet the substantial challenge in completing the safety review and construction authorization decision within the three to four year time period set forth in the Nuclear Waste Policy Act.
- Other Existing Materials and Waste Facilities: Resources increase for these activities by \$28.8 million in the FY 2009 budget request. Of the increase, \$15.4 million (majority of the resources are in the Nuclear Materials Users sub-program) supports the NRC's response to a Government Accountability Office (GAO) materials licensing investigation, which includes enhanced regulatory oversight in this area, the implementation of a Web-based licensing system, and complete initial deployment of a national registry of radioactive sources to improve the controls on risk-radioactive materials through the National Source Tracking System (NSTS). Resources also increase to provide additional support to Agreement States.
- **Other:** Resources increase by \$0.3 million for the Office of the Inspector General (OIG) to acquire contract services to conduct statutorily mandated audits and to provide for increased personnel costs of existing staff.

The above increases include Federal pay raises and other nondiscretionary compensation and benefits increases for existing full-time equivalent (FTE) and 121 additional FTE, upgrades to equipment and software, and the continuation of information security improvements. The NRC will

continue to strive to most efficiently utilize its budgeted FTE and contract dollars to achieve the agency's strategic goals and outcomes. The NRC will continue development and implementation of its approved human capital plan to continually adjust the allocation of employees and staffing assignments to meet workload requirements.

#### NRC Goals

The NRC has revised its strategic plan and has reorganized and simplified its strategic goal structure to focus on outcomes. The Strategic Plan for FY 2008 - FY 2013 contains two strategic goals and strategic outcomes for each goal:

(1) Safety – Ensure adequate protection of public health and safety and the environment.

- Prevent the occurrence of any nuclear accidents.
- Prevent the occurrence of any inadvertent criticality events.
- Prevent the occurrence of any acute radiation exposure 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.

(2) Security – Ensure adequate protection in the secure use and management of radioactive materials.

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

The agency's focus on safety and security ensures protection of the public and the environment. The resources requested in this budget will fund the activities necessary to achieve the NRC's two strategic goals. The agency's activities are carried out under two programs: the Nuclear Reactor Safety Program and the Nuclear Materials and Waste Safety Program. The activities that the agency undertakes under these two programs contribute directly to the achievement of the agency's mission, goals, and strategic outcomes. Output measures, which describe the level of activity that will be provided, are included in this budget for selected program activities. The Commission continually reassesses these output measures based on program performance and requirements, striving to ensure targets are appropriately challenging.

#### Summary by Major Program

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Summary	FY 2	FY 2007		FY 2008FY 2009Change fromEnactedRequestFY 2008										
	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE	\$M	FTE						
Budget Authority by Majo	or Programs													
Nuclear Reactor Safety	\$617.3	2,543	\$740.6	2,886	\$786.6	2,937	\$46.0	51						
Nuclear Materials and Waste Safety	153.4	710	147.7	665	184.0	748	36.3	83						
Subtotal	\$770.7	3,253	\$888.3	3,551	\$970.7	3,685	\$82.3	134						
High-Level Waste Repository	45.8	132	29.0	105	37.3	98	8.3	(7)						
Subtotal	\$816.5	3,385	\$917.3	3,656	\$1,008.0	3,782	\$90.6	126						
Inspector General	8.4	49	8.7	51	9.0	51	0.3	-						
Total	\$824.9	3,434	\$926.1	3,707	\$1,017.0	3,833	\$90.9	126						
Reimbursable FTE		20		20		15		(5)						
<b>Total</b> <sup>1</sup>	\$824.9	3,454	\$926.1	3,727	\$1,017.0	3,848	\$90.9	121						

<sup>1</sup>Numbers may not add due to rounding.

#### Nuclear Reactor Safety Program

The FY 2009 budget request provides \$786.6 million for the Nuclear Reactor Safety Program. This includes \$549.1 million to ensure the safe and secure operation of, and effective emergency preparedness for, the Nation's 104 nuclear power reactors and \$237.5 million to keep pace with the industry's applications to license new nuclear power reactors.

*New Reactors:* The NRC requests \$237.5 million for activities associated with reviewing applications to build nuclear power reactors in FY 2008 and FY 2009. The budget request provides resources to support activities that help ensure the safe and secure operation of the new generation of nuclear reactors in a timely manner:

- The NRC will continue the license review and inspection activities for the Watts Bar Unit 2 initiated in FY 2008.
- The NRC will continue the review of the 14 Combined Operating Licenses (COLs) that the agency anticipates will be received in 2008 and seven additional acceptance reviews are anticipated to be performed in FY 2009. The NRC expects to initiate review of these seven applications within an 8-month timeframe following the applications acceptance. The NRC will use its Design Centered Review Approach to review the expected applications. The NRC will continue the review of three design certification applications for the ESBWR, EPR and US APWR. It will complete the design certification of the AP1000 amendment and complete design certification aircraft impact assessments of five reactor designs. The NRC will also complete the Vogtle early site permit review.
- The NRC will further develop and implement the Construction and Vendor Inspection

program. This program will provide assurance that plant components are manufactured as required, plants are built as licensed, and that licensee operational programs are in place to support the safe startup and operation of new nuclear facilities.

• The NRC will also undertake technical development activities that support the timely review of new light water and non-light water reactor designs.

*Reactor Licensing Tasks:* The NRC's FY 2009 budget provides \$225.5 million for reactor licensing activities associated with overseeing the existing licenses of 104 nuclear power reactors and 33 research and test reactors. The budget request provides resources to conduct the following activities, which help ensure the safe and secure operation of reactors:

- Undertake research in the areas of materials performance, reactor fuel codes, fire safety, and electrical engineering, as well as assessment methods for reviewing current and future applications involving digital instrumentation and control.
- Complete 1,150 licensing actions to amend existing licenses, including approximately five power uprates, 17 anticipated reviews of licensees' implementation of the provisions of NFPA Standard 805 that will resolve several long-standing fire design issues at nuclear plants, and 600 other licensing tasks to address issues that do not require a license amendment.
- Screen and evaluate approximately 3,000 reports on events at power reactors.
- Support regulatory licensing process improvements and regulatory policy and guidance development.
- Review license applications for adequate safeguards and security protections, conduct threat assessments, revise security inspection procedures, and coordinate security and emergency preparedness activities with other Government agencies.

*Reactor License Renewal:* The NRC's budget includes \$33.3 million to continue its program to renew the licenses of existing nuclear reactors up to an additional 20 years beyond the original expiration date following the necessary safety reviews. The Commission expects the receipt of four new license renewal applications in FY 2008, and five new license renewal applications in FY 2009. The budget request will also provide resources to improve the rulemaking and guidance documents associated with the review of license renewal applications.

*International Activities:* The NRC's FY 2009 budget includes \$11.3 million for international activities to support agency participation in a wide range of mutually beneficial programs. The budget request will provide the resources necessary to participate in activities to enhance domestic and global nuclear safety, security, and safeguards through bilateral interactions and through participation in activities of multilateral organizations, such as the International Atomic Energy

Agency (IAEA) and the Nuclear Energy Agency (NEA). In addition, the budget request will provide resources to maintain 43 arrangements with regulatory authorities of other countries and to negotiate/renew 3-6 bilateral exchange arrangements between the agency and appropriate foreign counterparts.

*Reactor Oversight:* The NRC's FY 2009 budget includes \$255.4 million to support reactor inspection and performance assessment activities at 104 commercial and 33 test and research reactors licensed to operate. The NRC will continue to strengthen reactor oversight activities to provide early identification and management of potential safety issues. The budget request also provides resources to support the following:

- Support performance-based evaluations of licensee security programs and assess the effectiveness of these security programs. Review security improvement actions taken by power reactor licensees through inspections and oversight to confirm the adequacy of nuclear reactor security in the current threat environment.
- Support baseline inspections; plant-specific, supplemental, and reactive inspections; and generic issue inspections to address areas of emerging concern or areas requiring increased emphasis because of recurring problems.
- Investigate allegations of wrongdoing and undertake enforcement actions when necessary.
- Collect and analyze reactor performance data to identify industry trends, support significance determination process, and evaluate cross-cutting issues in the areas of human performance and safety culture.

*Incident Response:* The NRC's FY 2009 budget includes \$23.6 million to enhance and support 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. The budget request provides resources to support the following:

- Develop a plan to handle operations in the event of a pandemic flu.
- Conduct security-based emergency preparedness exercises.
- Operate communication systems that comply with requirements for continuity contained in National Communications System Directive 3-10.
- Operate systems that support the agency's incident response capabilities. These systems, such as the Operations Center Information Management System, are the primary communication infrastructure that supports the NRC response to radiological, nuclear materials, and national security events.

• Maintain incident response readiness and communicate and partner with other Federal, State and local agencies.

#### Nuclear Materials and Waste Safety Program

The FY 2009 budget request provides \$221.3 million for the Nuclear Materials and Waste Safety Program. This includes \$184 million to ensure the safe and secure storage, transport, and use of nuclear materials and operation of nuclear fuel facilities and \$37.3 million to support the Commission's statutory responsibilities regarding the DOE's license application for a HLW repository.

*Fuel Facilities:* The budget includes \$48.5 million to license and inspect all commercial nuclear fuel facilities involved in enriching, processing, and fabricating uranium ore into reactor fuel. The 20 regulated facilities include seven major and nine minor fuel fabrication facilities, two gaseous diffusion enrichment facilities, and two gas centrifuge enrichment facilities. The budget provides resources to conduct the following regulatory and other activities:

- Review two new uranium enrichment facility applications (GE Hitachi and AREVA) expected to be received in FY 2008.
- Review the license application and undertake inspection activities for a mixed-oxide fuel fabrication facility, and conduct adjudicatory hearings on enrichment facilities and the mixed-oxide fuel fabrication facility in FY 2009.
- Enhance the regulatory framework and related licensing and oversight efforts to ensure adequate security of nuclear and radioactive material.
- Conduct homeland security reviews and baseline security inspections at Category I facilities, develop international safeguards policy, and implement IAEA safeguards.

*Nuclear Materials Users:* The agency requests \$74.3 million to provide for licensing, inspection, event evaluation, research, incident and allegation response, and rulemaking activities to maintain the regulatory infrastructure needed to regulate nuclear materials. The budget request provides resources that support the following activities:

- Respond to a GAO materials licensing investigation.
- Conduct 20-25 materials and waste rulemakings per year.
- License and undertake additional inspections for the agency's new regulatory responsibilities for naturally-occurring or accelerator-produced radioactive material licenses and reciprocity inspections.

- Conduct activities with Agreement States and other state and local officials. Increase resources for Agreement State staff training.
- Implement a Web-based Licensing system.
- Complete initial deployment of a national registry (i.e., the National Source Tracking System) of radioactive sources of concern to improve controls on risk-significant radioactive materials to prevent their malevolent use.

*Decommissioning and Low-Level Waste:* The agency requests \$35.3 million to perform oversight of existing facilities and conduct technical and environmental reviews for uranium recovery licensing activities. The budget request provides resources to conduct the following activities:

- Conduct oversight of the decommissioning of power reactors, research and test reactors, and complex materials sites and perform related performance assessments and environmental reviews.
- Initiate safety and environmental reviews for 21 uranium recovery new applications, restarts, and expansions of existing facilities.
- Conduct oversight of approximately 65 complex materials, power reactor, research and test reactor, and inactive uranium recovery facilities undergoing decommissioning, including license termination of two sites, and associated performance assessment and environmental reviews.
- Provide oversight of certain 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.

*Spent Fuel Storage and Transportation:* The agency requests \$25.9 million to license, certify, and inspect 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 budget request provides resources to support the following activities:

- Review applications for independent spent fuel storage installations at commercial nuclear power plants, spent fuel storage casks, transportation packages, dual purpose (storage and transport) casks, and route approvals.
- Review 60 70 transportation package applications each year, 20 25 spent fuel storage cask designs and storage facility licenses, and 25 quality assurance program reviews for package design, use, and maintenance each year. The purpose of these reviews is to confirm that applicant-proposed designs are consistent with regulatory requirements.

- Review security procedures at independent spent fuel storage installations and procedures for the transportation of radioactive material.
- Implement a baseline inspection program for physical protection to enhance security for spent fuel storage facilities and transportation activities.

*High-Level Waste Repository:* The agency requests \$37.3 million to support NRC statutory responsibilities regarding the potential DOE application for a HLW repository. The FY 2009 budget assumes the receipt of a license application in June 2008. The budget provides resources to support the following activities:

- Determine whether to adopt DOE's final environmental impact statement (FEIS) and docket the application.
- Maintain the adjudicatory Digital Data Management System and Licensing Support Network.
- Review of Transportation Aging (storage) and Disposal (TAD) canister design applications initiated in fall 2008.
- Analyze full and quarter-scale transportation cask drop tests through an international cooperative agreement with the German Federal Institute for Materials and Research and other international counterparts.

#### **Budget Authority by Appropriation**

			FY 2	009	
NRC Appropriation	FY 2007	FY 2008	Request	Change from FY 2008	
Salaries and Expenses (S&E)					
Budget Authority	\$816.5	\$917.3	\$1,008.0	\$90.7	
Offsetting Fees	661.7	771.2	847.4	76.2	
Net Appropriated S&E	154.8	146.1	160.6	14.5	
Office of the Inspector General (OIG)					
Budget Authority	\$8.4	\$8.7	\$9.0	\$0.3	
Offsetting Fees	7.6	7.9	8.1	0.2	
Net Appropriated—OIG	0.8	0.9	0.9	-	
Total NRC					
Budget Authority	\$824.9	\$926.1	\$1,017.0	\$90.9	
Offsetting Fees	669.3	779.1	855.5	76.4	
Total Net Appropriated <sup>1</sup>	\$155.6	\$147.0	\$161.5	\$14.5	

The following table provides the NRC budget authority by appropriation:

<sup>1</sup>Numbers may not add due to rounding.

The proposed FY 2009 budget reflects \$855.5 million from fees assessed to NRC licensees, resulting in a net appropriation of \$161.5 million. This is an increase of approximately \$14.5 million in net appropriations above the 2008 enacted level. 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.

#### **Budget Presentation**

A discussion of the highlights of major FY 2009 activities for each of the NRC programs follows this executive summary. Chapters 3 and 4 of this report provide additional details, including output measures and FY 2007 accomplishments, for each of the two major programs. Chapter 5 describes the NRC performance measures. Chapter 6 summarizes the budget for the Office of the Inspector General. Homeland security resources and descriptions of activities are included within the programs they support. Appendix III explains the agency's infrastructure and support activities and the allocation of those resources to programs. Appendix VI provides the reimbursable business-like FTE, and Appendix VII presents the discontinued performance and output measures.

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The U.S. Nuclear Regulatory Commission's (NRC's) proposed appropriations legislation for fiscal year (FY) 2009 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), \$1,007,956,000 to remain available until expended: *Provided*, That of the amount appropriated herein, \$37,300,000 shall be derived from the Nuclear Waste Fund: *Provided further*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$847,357,000 in FY 2009 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 2009, so as to result in a final FY 2009 appropriation estimated at not more than \$160,599,000.

#### 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, \$9,044,000 to remain available until expended: *Provided*, That revenues from licensing fees, inspection services, and other services and collections estimated at \$8,140,000 in FY 2009 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 2009, so as to result in a final FY 2009 appropriation estimated at not more than \$904,000.

#### Analysis of Proposed FY 2009 Appropriations Legislation

The analysis of the NRC's proposed appropriations legislation for FY 2009 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 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 high-level 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 postdecommissioning 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 \$2,000,000 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 conducting security

inspections. The \$27,148,000 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 2009 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 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.

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.

The Nuclear Reactor Safety program encompasses all of the efforts of the U. S. Nuclear Regulatory Commission (NRC) to ensure that civilian nuclear power reactor facilities and research and test reactors are licensed and operated in a manner that adequately protects the environment and the health and safety of the public and provides high assurance of protection against radiological sabotage and theft or diversion of special nuclear materials. The Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, are the foundation for the NRC regulation of the Nation's civilian nuclear power industry. These efforts include new reactor activities, reactor licensing tasks, license renewal, international activities, reactor oversight, and incident response.

						FY 2	.009	
			FY 2	008			Change	e from
	FY 2	FY 2007 Enacted		Request		FY 2008		
Summary	<b>\$M</b>	FTE	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Contract Support and Travel	\$135.9		\$178.5		\$185.8		\$7.4	
Program Salaries and Benefits	280.0		325.8		348.3		22.5	
Subtotal Program	\$415.9	2,021	\$504.3	2,322	\$534.1	2,354	\$29.9	32
Infrastructure and Support Contract Support and Travel	130.0		157.2		166.3		9.1	
Infrastructure Support Salaries and Benefits	71.4		79.1		86.2		7.1	
Subtotal Program	\$201.4	522	\$236.3	564	\$252.5	583	\$16.2	19
<b>Total</b> <sup>1</sup>	\$617.3	2,543	\$740.6	2,886	\$786.6	2,937	\$46.0	51

#### **BUDGET OVERVIEW**

<sup>1</sup>Numbers may not add due to rounding.

The agency requests \$786.6 million, including 2,937 FTE, for the Nuclear Reactor Safety program in Fiscal Year (FY) 2009. This represents an increase of \$46 million, including 51 FTE, from FY 2008.

This FY 2009 budget request for the Nuclear Reactor Safety Program reflects the continued activity by utilities to expand the amount of electricity produced by nuclear reactors. The need for energy sources that do not contribute to global warming is growing, and nuclear power is considered to be part of the solution to this issue. National policy initiatives have also incited utilities' interest in increasing the amount of energy produced by nuclear power plants. In addition, the demand for electricity continues to grow. A 41 percent increase in electrical energy output is forecasted by the Energy Information Administration over the next 25 years, part of which is expected to be supplied by nuclear power.

To meet these demands, utilities are building new reactors and upgrading existing operating nuclear reactors. In addition, increased efficiency through power uprates, longer periods

between refueling, and other efficiency improvements, have allowed existing operating nuclear reactors to increase their electrical output substantially from 640 billion kilowatt-hours in 1994 to 787 billion kilowatt-hours in 2006. As the industry has been growing, the NRC's regulatory workload has also been expanding. To meet the agency's mission to protect public health and safety, the agency requests increased resources in 2009 for licensing and inspection activities for new and existing reactors.

The Nuclear Reactor Safety program is carried out under a series of sub-programs that implement the agency's regulatory process for nuclear reactors. These sub-programs are listed in the table below.

						FY 2009			
	FY 2007		FY 2008 Enacted		Request		Change from FY 2008		
Programs	\$M FTE		\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	
New Reactors	\$124.0	448	\$234.4	799	\$237.5	812	\$3.1	13	
Licensing Tasks	205.6	793	213.5	792	225.5	793	12.0	1	
License Renewal	27.3	114	22.5	108	33.3	130	10.9	22	
International Activities	8.6	39	11.2	38	11.3	37	.1	-1	
Reactor Oversight	234.4	1,087	239.3	1,076	255.4	1,094	16.1	18	
Incident Response	17.4	62	19.6	72	23.6	71	3.9	-1	
	\$617.3	2,543	\$740.6	2,886	\$786.6	2,937	\$46.0	51	

#### BUDGET AUTHORITY AND FULLTIME EQUIVALENTS BY PROGRAM

<sup>1</sup> Numbers may not add due to rounding.

The key areas of workload for the Nuclear Reactor Safety program are in license amendments of existing reactors, reactor oversight and incident response, and new reactors. The Nuclear Reactor Safety program increases are summarized below:

**Licensing Amendments for Existing Reactors:** An increase of \$22.9 million (\$12 million in Licensing Tasks and \$10.9 million in License Renewal) is requested to meet the licensing requirements of existing reactors. In addition to building new reactors, the industry continues to meet the growing need for clean electrical output by increasing the operational efficiency of existing licensed nuclear reactors and taking steps to extend the operating life of these plants. As noted above, the existing operating reactors have increased output by over 20 percent since 1994. Utilities have increased the plant's efficiency through power uprates, operating for longer periods between refueling, and keeping shutdowns for unplanned maintenance to a minimum. These improvements require license amendments to the facility, which the agency reviews and approves to ensure the continued safe operation of the plant.

In addition, if approved by the NRC, nuclear facility operators are able to extend the operating life of the plants by 20 years through license renewal application. The agency has already

reviewed and approved license renewal applications for 48 reactor units (26 application sites). Eventually, all existing reactors are expected to apply to renew their operating licenses. The agency expects to receive an additional five license renewal applications in FY 2009. Licensing activities also include investments in vital research activities to improve safety at nuclear facilities. For example, the NRC is conducting important research on materials degradation issues to identify susceptible materials and components.

**Reactor Oversight:** An increase of \$16.1 million is requested to support the Reactor Inspection and Performance Assessment program, enforcement-related activities, and license renewal inspections.

**Incident Response:** An increase of \$3.9 million is needed to support the replacement of potassium iodide supplies and to implement continuity program requirements of National Communications System Directive 3-10.

**New Reactors:** An increase of \$3.1 million is requested to address licensing and inspection requirements for new reactors. The nuclear industry remains on course to file a large number of license applications with the agency to build and operate the next generation of nuclear reactors. The agency has prepared itself to review these applications by developing an efficient review process and by hiring and training the workforce necessary to review the applications in a timely manner. In addition, the agency is preparing to inspect components manufactured for the new reactors and reactor construction sites. During FY 2008, the agency expects to initiate the review of 14 Combined Operating Licenses (COL) applications. During FY 2009, acceptance reviews are anticipated to be performed on seven additional COLs.

**International Activities:** The International Activities program budget is stable from FY 2008 – FY 2009. The NRC will continue to participate in activities to exchange information on regulatory experience and expertise and to enhance domestic and global nuclear safety, security, and safeguards through bilateral interactions and through participation in activities of multilateral organizations, such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA).

					FY 2009			
				2008			Change	
	FY 2	007	Ena	cted	Requ	est	FY 2	008
Program	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	<b>\$M</b>	FTE
Budget Authority by Program								
Program Support	\$93.2	355	\$178.9	667	\$175.0	668	-\$3.9	1
Infrastructure and Support	30.8	93	55.5	132	62.5	144	7.0	12
	\$124.0	448	\$234.4	799	\$237.5	812	\$3.1	13

#### **NEW REACTORS**

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$237.5 million, including 812 FTE, for activities associated with reviewing applications to build nuclear power reactors in FY 2009. This represents an increase of \$3.1 million and 13 FTE from FY 2008. Program resources include the development of the Construction and Vendor Inspection program, ongoing Watts Bar Unit 2 licensing activities, research activities for new light water and non-light water reactor designs, and additional Region II office space approved in January 2008 to support the Construction and Vendor Inspection program.

**New Reactor Activities:** These activities support achievement of NRC's strategic goal on Safety.

In FY 2009, the requested resources will support the reactivation of the license review and inspection activities for Watts Bar Unit 2, located in southeastern Tennessee. In August 2007, the Tennessee Valley Authority informed the NRC of its intent to reactivate and complete construction activities at the Watts Bar Nuclear Plant Unit 2. The Commission has approved a licensing and inspection program approach for the Watts Bar 2 completion project.

<u>Design Certifications</u>: The agency will complete the review of one design certification and continue to review three other design certification applications. The agency measures the output of its design certification activities (see next page). The FY 2009 target for design certification activities is to support the milestones necessary to complete the review of the AP 1000 design certification amendment, made necessary by recent design changes, and to review the Economic Simplified Boiling Water Reactor (ESBWR), the Evolutionary Power Reactor (EPR), and the US Advanced Pressurized Water Reactor (US APWR) design certification applications.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Issue the final SER for AP1000 design certification review.	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.
Actual:	Issued FSER and Final Design Approval (FDA) for AP1000.	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.		

<u>Early Site Permits (ESP)</u>: The NRC issues ESPs separate from construction permits or combined license applications. An ESP is a partial construction permit. Early site permits address site safety issues, environmental protection issues, and plans for coping with emergencies independent of the review of a specific nuclear plant design. The agency measures the output of its early site permit activities (see next page). The FY 2009 target is to complete one early site permit review for the Vogtle nuclear power plant site in Georgia.

Output m	Output measure: Review early site permit applications on the schedules negotiated with the applicants.								
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:	Begin review of 1 application. Issue requests for additional information (RAIs) for 1 application.	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).			
Actual:	Began review of 1 application. Issued RAIs for 3 applications.	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).					

<u>Combined Operating Licenses (COL)</u>: During FY 2008, the agency expects to initiate the review of 14 COL applications. During FY 2009, acceptance reviews are anticipated to be performed on seven additional COLs. Initiation of the review of these applications will occur within an 8-month timeframe. The NRC has developed a "Design Centered Review Approach" process to review the expected COL applications. This review process for new reactors will result in significant resource savings.

The budget includes resources for technical development activities to develop the expertise, tools, and data needed to support the review of new light water and non-light water reactor designs. The budget also includes resources to support the needed legal advice and representation, independent advice, and a remote hearing support system to support the review and licensing process.

The agency measures the output of its COL review process. The FY 2009 target is to complete the milestones associated with conducting 21 COL application reviews.

Output me	Output measure: Review COL applications on the schedules negotiated with the applicants.								
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
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 21 COL application reviews.			
Actual:			Staff has engaged in preapplication activities with potential COL applicants.	Staff engaged in preapplication activities with prospective COL applicants.					

<u>Construction and Vendor Inspection Program</u>: This program provides assurance that plant components are manufactured as required, plants are built as licensed, and that licensee operational programs are in place to support the safe startup and operation of new nuclear facilities. The Vendor Inspection program ensures that vendors have quality assurance programs that meet NRC regulations and that components can perform as expected. The agency's vendor inspection activities will be conducted while the long-lead time components are being fabricated.

**New Reactor Activities:** These activities support achievement of NRC's strategic goal on Security.<sup>1</sup>

The NRC will provide oversight of security through safeguards and security licensing reviews for multiple COL applications, early site permits, and design certification applications. The agency will also assess the effects of aircraft impacts for multiple designs, and complete numerous refinements to the regulatory infrastructure. Improvements to the agency's regulatory infrastructure for security issues will include procedure enhancements and development of licensing review guidance.

*Program Assessment Rating Tool (PART):* Because this is a new program, the New Reactor program has not yet undergone a PART review. A PART review of this program is currently scheduled to take place in FY 2012.

#### FY 2007 Significant Accomplishments

The NRC engaged in numerous activities to prepare for prospective new reactor applications. The agency issued a new reactor COL application regulatory guide (Regulatory Guide 1.206, A Combined License Application for Nuclear Power Plants [LWR Edition] issued June 2007), which develops strategies for optimizing the review of the applications. In addition, a construction inspection program was developed for new construction activities, and agency

<sup>&</sup>lt;sup>1</sup> In the following discussions, references to security are intended to reflect homeland security activities.

activities in the pre-application and design certification review processes were continued. The agency also updated more than 250 sections of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," and associated regulatory guides and performed rulemaking activities to revise the licensing process under Title 10, Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants," of the *Code of Federal Regulations* (10 CFR Part 52).

*New Reactor Designs:* The NRC has issued design certifications for the following four new reactor designs that can be referenced in an application for a nuclear power plant:

- General Electric Nuclear Energy's Advanced Boiling Water Reactor (ABWR)
- Westinghouse's System 80+
- Westinghouse's Advanced Pressurized (AP) Reactor AP600
- Westinghouse's Advanced Pressurized (AP) Reactor AP1000

The NRC continued its review of the General Electric Economic Simplified Boiling Water Reactor (ESBWR) design, as well as a design certification amendment for the Westinghouse AP1000 design.

*Early Site Permits:* The NRC has issued ESPs to System Energy Resources, Inc., for the Grand Gulf site in Mississippi; to Exelon Generation Company, LLC, for the Clinton site in Illinois; and Dominion Nuclear North Anna, LLC, for the North Anna site in Virginia. Staff is currently reviewing the ESP for the Southern Nuclear Operating Company for the Vogtle site in Georgia. The agency has issued new reactor application emergency preparedness safety evaluations for Grand Gulf, Clinton, North Anna, and Vogtle.

The NRC revised the regulation governing ESPs, design certifications, and COLs (10 CFR Part 52), to improve the effectiveness and efficiency of the licensing processes for future applicants. In addition to working on domestic issues for new reactor construction, the NRC has been a leader in cooperating with other international nuclear regulatory partners to address advanced reactor oversight. The NRC is participating in the Multinational Design Evaluation Program initiative, through which several 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.

*Licensing of Next-Generation Nuclear Plant:* The Energy Policy Act of 2005 specifies that the Secretary of Energy shall establish the next-generation nuclear plant project. This project consists of research, development, design, construction, licensing, and operation of a prototype nuclear plant, including a very-high-temperature reactor, which can be used to generate electricity, hydrogen, or both. In addition, the Energy Policy Act provides that the NRC shall have licensing and regulatory authority for any reactor authorized under the Act. The Secretary of Energy and the NRC Chairman must jointly develop and submit a licensing strategy for the prototype reactor by August 2008. The NRC initiated work to develop the licensing strategy

discussed in the Energy Policy Act. Toward that end, the NRC and the Department of Energy (DOE) staff reviewed different licensing strategies and identified the advantages and disadvantages of each with respect to meeting the Congressional mandate of building a prototype by 2020. In addition, the staff convened a group of experts to identify research needed to develop the technical basis for NRC decisions to license a next-generation nuclear plant.

*Watts Bar Unit 2*: In August 2007, the Tennessee Valley Authority informed the NRC of its intent to reactivate and complete construction activities at the Watts Bar Nuclear Plant Unit 2. The NRC resumed licensing and construction oversight for the Watts Bar Nuclear Plant Unit 2 under 10 CFR Part 50.

					FY 2009						
	FY	2007		2008 acted	Req	Request		ge from 2008			
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE			
Budget Authority by Program	Budget Authority by Program										
Program Support	\$146.6	645	\$150.5	642	\$162.5	648	\$11.9	6			
Infrastructure and Support	59.0	148	63.0	150	63.0	145	0	-5			
<b>Total</b> <sup>1</sup>	\$205.6	793	\$213.5	792	\$225.5	793	\$12.0	1			

## **REACTOR LICENSING TASKS**

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$225.5 million, including 793 FTE, for reactor licensing tasks associated with overseeing the existing licenses of nuclear power reactors and research and test reactors. This represents an increase of \$12 million and 1 FTE from FY 2008. These resources will support a number of important licensing activities. There will be an increase in the complexity of licensing activities as a result of the expected transition of reactor sites to the National Fire Protection Association (NFPA) Standard 805, which is a performance-based standard for fire protection at nuclear power plants. The agency will also develop regulatory guides on fire protection and probabilistic risk assessment. In addition, NRC has implemented a change to its budget structure to improve clarity and accountability. In 2008, all reactor licensing, rulemaking, and international activities were reported under the same program. In 2009, these activities have been split into three separate programs; Reactor Licensing Tasks, Reactor License Renewal, and International Activities. Rulemaking activities are integral to the licensing efforts and therefore are included in those sections.

The agency will replace the reactor program management and tracking system to improve the efficiency of its licensing operations. The budget request will also invest in research activities to improve safety at existing nuclear facilities. For example, the NRC will conduct important research on materials degradation issues to identify susceptible materials and components in light-water reactors. The request also includes increased resources to support the Nuclear Safety Professional Development program.

**Reactor Licensing Tasks Activities:** These activities support achievement of NRC's strategic goal on Safety.

<u>License Reviews</u>: The agency receives licensing amendments from nuclear power plants when the plants modify their operations. The agency will review these amendments in FY 2009 to ensure that safety is maintained as a result of the modification of the plant's operations. For example, utilities submit power uprate amendments as a way to increase the power output of their nuclear plants. An analysis of modifications to the plant design must demonstrate that the proposed new configuration remains safe.

The agency measures the output of its reactor license review process through several measures. The target for the number of licensing actions in FY 2009 is to complete 1,150 licensing actions

to amend existing licenses, including five power uprates and 17 anticipated NFPA Standard 805 reviews (see below). Another important factor for the agency's licensing process is to ensure that the license review process is conducted in a timely fashion. The target for FY 2009 is to complete 93 percent of licensing actions within 1 year and all within 2 years.

Output m	Output measure: Licensing actions completed per year									
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009				
Target:	Complete 1,500 licensing actions.	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.*,**,***				
Actual:	1,741 completed.	1,609 completed.	1,659 completed.	1,542 completed.						

\* Including conversions to improved Standard Technical Specifications

\*\* Including extended power uprate reviews, and National Fire Protection Association Standard 805 reviews.

\*\*\* The decision to discontinue this measure after FY 2007 has been reconsidered. It has been reinstated for FY 2008 and FY 2009.

Output n	Output measure: Age of licensing action inventory.*								
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:	$96\% \le 1$ yr. $100\% \le 2$ yrs.	$90\% \le 1$ yr. $100\% \le 2$ yrs.	$96\% \le 1$ yr. $100\% \le 2$ yrs.	$96\% \le 1$ yr. $100\% \le 2$ yrs.	$96\% \le 1$ yr. $100\% \le 2$ yrs.	$93\% \le 1$ yr. $100\% \le 2$ yrs.			
Actual:	$91.0\% \le 1$ yr. $100\% \le 2$ yrs.	$92.6\% \le 1$ yr. $99.9\% \le 2$ yrs.	$97.6\% \le 1$ yr. $99.9\% \le 2$ yrs.	$96.9\% \le 1$ yr. $100\% \le 2$ yrs.					
* Exclud	les license renewal and	I improved standard te	chnical specifications (	iSTS) conversions Al	so excludes license am	endment requests			

\* 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

The agency also measures its output of other licensing tasks. Other licensing tasks address issues that do not require a license amendment. The target in FY 2009 for other licensing tasks is to complete 600 other licensing tasks. Some examples include, review and response to Task Interface Agreements (TIAs), backfits for power reactors, and Multi Plant Action (MPA) certification by licensees. The timeliness measure for other licensing tasks is to complete 90 percent within 1 year and all within 2 years.

Output m	Output measure: Other licensing tasks completed per year.								
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:	Complete 350 other licensing tasks.	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.			
Actual:	671 other licensing tasks completed.	715 other licensing tasks completed.	676 other licensing tasks completed.	1,045 other licensing tasks completed.					

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New Measi	$90\% \le 1$ yr. 100% $\le 2$ yrs.	$90\% \le 1$ yr. 100% $\le 2$ yrs.		
Actual:		INCW MICASI				

In addition, the agency will screen and evaluate approximately 3,000 reports on events at power reactors in FY 2009. Included within the program are resources to support regulatory licensing process improvements.

<u>Research</u>: The agency conducts important research activities to ensure the safety of nuclear plants. The research program is designed to improve the agency's knowledge where uncertainty exists, where safety margins are not well characterized, and where regulatory decisions need to be confirmed in existing or new designs and technologies.

The agency's key research activities in FY 2009 will study materials performance, reactor fuel, systems analysis codes, fire safety, electrical engineering, and the assessment of methods for reviewing current and future applications of digital instrumentation and control. All of these research activities will have an important impact on ensuring that safety is maintained at nuclear power plants. The agency measures the output of its research activities using two measures (see below). The first measures the timeliness of its critical research programs. The agency's target in FY 2009 is to accomplish 90 percent of the major research project milestones. The second is the quality of its research products. The target in FY 2009 is to achieve a score of 3.5 on a scale of 1 to 5 for research products.

Output measure: Timeliness of completing actions on critical research programs.								
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
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.	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.		
Actual:	90% across programs.	81% across programs.*	96% 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.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New Measure in FY 2007			Combined score $\geq 3.0$	Combined score $\geq 3.5$
Actual:		New Medsure III 1 200		4.0		

<u>Rulemaking and Guidance</u>: The program develops regulations and guidance documents which are used for licensing nuclear reactors. The agency expects to conduct 12 rulemaking activities, including the Final Generic Environmental Impact Statement (GEIS). The GEIS rule considers changes in the agency's regulations for decommissioning commercial nuclear facilities. The agency will also develop several regulatory guides, including a regulatory guide for NFPA Standard 805, the performance-based standard for fire protection at nuclear power plants. In addition, Section 7 of the Standard Review Plan will be revised and the formula for estimating the cost of decommissioning nuclear power reactors will be re-evaluated.

**Reactor Licensing Tasks Activities:** These activities support achievement of NRC's strategic goal on Security.

The agency provides oversight of security through safeguards and security licensing reviews, which ensure that adequate security practices are in place at nuclear power reactors. The agency also conducts threat assessments to ensure that proper vigilance is being maintained at nuclear reactors. The agency will improve its security processes by enhancing regulations, finalizing security rulemakings, developing regulatory guides, and revising security inspection program procedures. The agency will also coordinate its activities with intelligence and law enforcement agencies regarding threats to licensed facilities, and with other Federal and State agencies to integrate response planning.

*Program Assessment Rating Tool (PART):* The NRC reviewed the Reactor Licensing PART in FY 2005. This program was rated as moderately effective. The program earned high scores for program purpose and design, and for program management. It was noted that the purpose was clear and that the program used operating plan information to manage and improve program performance. The next PART review of the Licensing Tasks program is currently scheduled to take place in FY 2011 as an element of the agency's operating reactors activity.

The following table summarizes an update of the FY 2005 review submitted in the fall of 2007 providing the status of the identified follow-up actions:

Follow-up Action	Status	Expected Completion Date	Comments
(1) While the program has achieved efficiencies in the past, it does not have procedures in place to systematically measure, monitor, and achieve efficiencies and lacks efficiency measures. Over the coming year, the program intends to develop an efficiency measure. The measure is expected to be: "greater than 70 percent of selected processes deliver desired efficiency improvements." The program needs to determine which reactor licensing actions will be measured as well as appropriate baselines and targets; these outputs will support the overall efficiency measure for the program.	Completed	Completed 4Q FY 2007	<ol> <li>The program reduced license amendment review time by 5 percent compared to the historical average.</li> <li>In FY 2007, the program implemented process enhancements, including infrastructure, to permit improvement of rulemaking petition timeliness by 5 percent. Validation of the results of these improvements on timeliness will be available at the end of FY 2008.</li> <li>In FY 2007, the program achieved an average 5 percent reduction in license renewal resources for applications completed.</li> </ol>
(2) Resource needs are not presented in a complete and transparent manner. Over the coming year, the program will update the operating and leadership plans to include strategic outcomes and performance measures provided in the agency budget document and strategic plan. This will help provide transparency and strengthen the alignment of the program operations with the goals of the agency as a whole. Additionally, the agency's budget document will be updated to state which strategic outcomes and performance measures apply to each program in each program section, and will cross-reference these measures by providing them in the performance measures section of the budget document. The agency's budget document will also include an explanation of the common prioritization process. This will include an explanation of the process for how budgetary resources are allocated to achieve planned accomplishments (PA) in order or priority, as well as the criteria used for relative ranking of PAs.	Completed	Completed 4Q FY 2007	Resources associated with programmatic activities are monitored on a monthly basis, using NRC's revised Performance Monitoring Report, to identify out-of- standard activities and to determine corrective actions to bring activities back into alignment within annual goals. The content and reporting of Office metrics in the Report are organized according to strategic plan goals and measures. This provides a direct link between the goals, measures, and the associated metrics.
(3) The Program does not have assessments performed regularly. There have been evaluations performed by independent entities, such as NAS, GAO, and the NRC, OIG, that have touched upon some aspects of the program. However, there has not been a comprehensive assessment of the type described in the PART guidance. Over the coming year, the program needs to secure a regularly scheduled independent assessment of sufficient scope and quality, including an evaluation of the program's annual and long term performance measures, ability to deliver results to all relevant stakeholders, and efficiency and effectiveness with regard to strategic planning and program management.	Action taken, but not completed	FY 2010	The NRC will actively engage the OIG on planned PART reviews so that the OMB can fully consider scheduling beneficial evaluations in the formulation of the OIG Annual Audit Plan. Because the OIG has independence and has direct access to those agency records and material it needs to conduct its review, the Commission believes that reliance on the OIG to perform upcoming PART reviews is the most operationally effective approach. In addition, the Commission has directed the staff to contract with an outside organization to conduct independent program evaluations. NRC is in the process of contracting with an outside organization

Follow-up Action	Status	Expected Completion Date	Comments
			(such as a university, consulting firm, Federally Funded Research and Development Center, or private non- profit or not-for-profit group) on a pilot basis. Following completion of the first two evaluations, the NRC will assess the quality of the external evaluations, the effectiveness in identifying implementation actions that have the potential to improve organizational performance, and will make a determination on whether these external evaluations should continue on a routine basis.
(4) The program needs to recalibrate its targets during the FY 2007 budget process to be more ambitious and demonstrate continuous improvement.	Action taken, but not completed	Ongoing	NRC re-evaluated each of the Safety Goal Measures. Two targets were lowered to be more aggressive and reflect actual performance history. The other targets were re-evaluated, and it was determined that they were sufficiently aggressive, given the history and purpose of the measure. A new performance measure for new reactors was developed for the Effectiveness Goal. In Other Licensing Tasks (OLTs) for FY 2009, the Office of Nuclear Reactor Regulation accepted the new challenging goal of 600 OLTs for FY 2008 and considers the goal of 600 OLTs for FY 2009 a stretch goal with the consideration that it may not be met due to a possible reduced inventory with a lesser number of MPAs.

# FY 2007 Significant Accomplishments

*Restart of Browns Ferry Unit 1:* The NRC completed extensive inspection and licensing efforts and authorized the restart of the Tennessee Valley Authority's Browns Ferry Unit 1 nuclear power plant. This 1,065 megawatt electric (MWe) unit was placed on the electrical grid on June 2, 2007. The NRC staff completed review of a large number of licensing actions and other licensing tasks (approximately 100), and conducted the necessary inspections before restart. Completion of the licensing and inspection activities for this 5-year project took approximately 80,000 hours of work.

*Power Uprates:* The NRC evaluates nuclear facility power uprate applications, which are means for licensees to increase the power output of their plants. The NRC reviews focus on the potential impacts of the proposed power uprate on overall plant safety and ensures that plant operation at the increased power level is safe. Power uprates increased the Nation's electrical generating capacity by approximately 55 MWe in FY 2007. Given the current projections, another 510 MWe will be added in FY 2008 and an additional 452 MWe in FY 2009. This is roughly the equivalent of an additional reactor. This increase in nuclear power plant output

allows the industry to supply much-needed electricity to the country by increasing the generating capacity of the existing plants in a safe and cost-effective manner.

*Fire Safety Research:* The NRC's fire safety research program supports regulatory activities related to fire protection and fire risk analysis. During FY 2007, this research program focused on risk-informed fire protection activities such as supporting the implementation of a new fire protection rule, 10 CFR 50.48(c), which endorses National Fire Protection Association Standard 805, and the fire protection inspection significance determination process. The NRC issued NUREG-1824, "Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications," in May 2007. NUREG-1824 documents the verification and validation of five fire modeling tools commonly used in nuclear power plant applications. Technical review of fire models is necessary for the NRC to judge the adequacy of the scientific and technical basis for the models and to determine whether they are appropriate for a specific use.

*Materials Degradation Research:* The NRC is conducting research on materials degradation to identify susceptible materials and components in light-water reactors. In February 2007, the NRC issued NUREG/CR-6923, "Expert Panel Report on Proactive Materials Degradation Management," a nearly 4,000-page compendium. By identifying susceptible materials and components where future degradation may occur in specific light-water reactor systems, this study provides the first step in developing programs for the proactive management of materials degradation. Other ongoing activities include (1) evaluating the effectiveness of in-service inspection techniques and programs to detect degradation in components with a high likelihood for degradation, (2) estimating probabilities of failure and associated uncertainties for these components, and (3) performing risk assessments of components that are likely to degrade in order to evaluate their impact on safety.

*Digital Instrumentation and Control (I&C) Research:* The NRC expects a substantial increase in the use of digital systems for new reactors and retrofits in the current operating reactors. As a result, the NRC updated applicable licensing criteria and regulatory guidance and is performing research to support licensing these new digital I&C systems. The comprehensive Digital System Research Program Plan defines I&C research programs that support the regulatory needs of the agency. The NRC research will result in the development of licensing review and acceptance criteria for issues such as electrical and communication separation and independence between safety-related and non-safety-related displays and controls and redundant safety channels (interchannel communications).

*State-of-the-Art Reactor Consequence Analysis:* The NRC completed the preliminary analysis of a boiling water reactor (Peach Bottom Atomic Power Station) and a pressurized water reactor (Surry Power Station), the first two pilot plants of the State-of-the-Art Reactor Consequence Analyses (SOARCA) project. The NRC is using the improved knowledge and the technological advances gained over the past 25 years to develop a realistic consequence analysis that considers the risk, design features, improvements in mitigative measures, and emergency response capabilities to determine the potential consequences from a severe accident and the potential

health effects on the public. A SOARCA Website is available at <u>http://www.nrc.gov/about-nrc/regulatory/research/soar.html</u> to assist with keeping the public and other stakeholders informed of the objective, progress made, and future activities associated with this project.

*Risk-Informed Technical Specifications:* The NRC approved industry guidance and a pilot plant license amendment request related to Risk-Informed Technical Specifications Initiative 4B. This initiative, one of eight industry-proposed risk-informed changes to the Standard Technical Specifications, establishes flexible allowed outage times based on a real-time, configuration-specific risk analysis. The initiative allows licensees to establish a risk-informed time for restoration of inoperable components, up to a limit of 30 days, commensurate with the actual safety impact of the degraded components and the actual configuration of all plant systems important to safety.

					FY 2009				
	FY 2007			2008 acted	Request			e from 2008	
Program	\$M	FTE	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	
Budget Authority by Program									
Program Support	\$19.4	93	\$14.3	88	\$23.8	108	\$9.5	20	
Infrastructure and Support	7.9	21	8.2	20	9.5	22	1.3	2	
<b>Total</b> <sup>1</sup>	\$27.3	114	\$22.5	108	\$33.3	130	\$10.9	22	

#### **REACTOR LICENSE RENEWAL**

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$33.3 million, including 130 FTE, to review applications to renew nuclear power licenses. This represents an increase of \$10.9 million and 22 FTE from FY 2008. The agency expects to receive four new license renewal applications in FY 2009 and five new license renewal applications in FY 2009. In addition, the requested resources will allow the agency to revise the Generic Environmental Impact Statement, including the associated guidance documents. The agency will also produce a Generic Aging Lessons Learned report, which contains the agency's evaluation of existing plant programs and documents the technical basis for determining where existing programs are adequate without modification and where existing programs should be augmented. In addition, NRC has implemented a change to its budget structure to improve clarity and accountability. In 2008, all reactor licensing, rulemaking, and international activities were reported under the same program. In 2009, these activities have been split into three separate programs; Reactor Licensing Tasks, Reactor License Renewal, and International Activities. Rulemaking activities are integral to the licensing efforts and therefore are included in those sections.

**Reactor License Renewal Activities:** These activities support achievement of NRC's strategic goal on Safety.

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. Renewal action reviews are generally completed on a 22-month target cycle (30 months if a hearing is associated with the review) after receipt. Non-standard license renewal applications are completed within the schedule agreed upon with the applicant. The budget request also includes resources for power reactors and regulatory framework improvements.

The agency measures the output of its license renewal application review process by the number of milestones completed for license renewals (see next page). The FY 2009 target is to complete the major milestones for four license renewal applications.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Complete major milestones for 4 applications.	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.
Actual:	Milestones completed for 6 applications.	Milestones completed for 4 applications.	Milestones completed for 4 applications.	Milestones completed for 3 applications.		

*Program Assessment Rating Tool (PART):* This program's PART improvements and upcoming schedule are an element of the agency's operating reactor activity, described above under the Nuclear Reactor Safety License Renewal program. The next PART review of this program is currently scheduled to take place in FY 2011 as part of the agency's operating reactors activity.

# FY 2007 Significant Accomplishments

In FY 2007, the agency met or exceeded all milestones for the review of license renewal applications. The NRC issued renewed licenses for Nine Mile Point Units 1 and 2, Monticello, and Palisades. The agency also conducted safety and environmental reviews for nine additional applications for a total of 12 sites. Efforts to increase public confidence and to extend outreach activities were an integral part of the agency's license renewal program.

					FY 2009					
	FY 2	2007		2008 acted	Request		Change FY 2			
Program	\$M	FTE	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE		
Budget Authority by Program										
Program Support	\$5.9	32	\$8.2	31	\$8.3	30	\$.2	-1		
Infrastructure and Support	2.7	7	3.1	7	3.0	7	-0.1	0		
Total <sup>1</sup>	\$8.6	39	\$11.2	38	\$11.3	37	\$0.1	-1		

## **INTERNATIONAL ACTIVITIES**

<sup>1</sup> Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$11.3 million, including 37 FTE, for international activities. This request represents a reduction of 1 FTE from FY 2008. In addition, NRC has implemented a change to its budget structure to improve clarity and accountability. In 2008, all reactor licensing, rulemaking, and international activities were reported under the same program. In 2009, these activities have been split into three separate programs; Reactor Licensing Tasks, Reactor License Renewal, and International Activities. Rulemaking activities are integral to the licensing efforts and therefore are included in those sections.

**International Activities:** These activities support achievement of NRC's strategic goal on Safety.

The requested resources for this program will support NRC participation 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 development of approaches for the safe and secure use of nuclear material for peaceful purposes worldwide.

The requested resources will also provide for the agency's participation in bilateral and multilateral efforts to exchange information on regulatory experience and expertise on construction, startup, and operation of nuclear power plants. The NRC will participate in activities to enhance domestic and global nuclear safety, security, and safeguards through bilateral interactions and through participation in activities of multilateral organizations such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA). The agency maintains 43 arrangements with regulatory authorities of other countries and expects to negotiate or renew 3-6 bilateral exchange arrangements between the agency and foreign counterparts. The FY 2009 request includes resources to plan for an IAEA Integrated Regulatory Review Service mission, scheduled for FY 2010, to review the NRC's operating power reactor program.

*Program Assessment Rating Tool (PART):* This program will be assessed, in conjunction with other Nuclear Reactor Safety programs, in FY 2011.

## FY 2007 Significant Accomplishments

A notable accomplishment during FY 2007 was the NRC approval of the Memorandum of Cooperation on Nuclear Safety for the Westinghouse Advanced Pressurized Reactor (AP1000) with the National Nuclear Safety Administration of the People's Republic of China. This memorandum will serve as the basis for cooperation with the Chinese through technical assistance, training, and the sharing of information on the AP1000.

The NRC has been a leader in developing and implementing programs focused on leveraging the knowledge and resources within the international regulatory community in the licensing of new reactor designs. The NRC participated in an initiative, the Multinational Design Evaluation Program, through which several regulatory authorities share expertise and resources in reviewing new and future reactor designs and seek ways to harmonize codes, standards, and regulations for the review of future reactor designs.

During FY 2007, the NRC provided assistance for strengthening safety and security oversight of radioactive sources to the regulatory authorities of Armenia, Azerbaijan, Georgia, Iraq, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. This assistance focused on developing a national registry of radioactive sources and drafting related laws and regulations.

					FY 2009			
	FY 2	007		2008 Icted	Requ	lest	Change FY 2(	
Program	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	<b>\$M</b>	FTE
Budget Authority by Program								
Program Support	\$139.0	847	\$139.5	838	\$148.6	848	\$9.1	10
Infrastructure and Support	95.4	241	99.8	238	106.8	247	7.0	8
Total <sup>1</sup>	\$234.4	1,088	\$239.3	1,076	\$255.4	1,094	\$16.1	18

#### **REACTOR OVERSIGHT**

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$255.4 million, including 1,094 FTE, for reactor oversight activities in FY 2009. This represents an increase of 16.1 million, including 18 FTE from FY 2008. The additional resources requested for Reactor Oversight are primarily for license renewal activities and generic safety issue inspections. In addition, the agency will undertake important security activities, such as a review of licensees' security plans required by the new Part 73 and improvement in force-on-force exercises. In addition, NRC has implemented a change to its budget structure to improve clarity and accountability. In 2008, all reactor oversight and incident response activities were reported under the same program. In 2009, these activities have been split into two separate programs; Reactor Oversight and Incident Response.

**Reactor Oversight Activities:** The following activities support the achievement of NRC's strategic goal on Safety.

<u>Reactor Inspections</u>: The agency's Reactor Oversight Program ensures that the licensees of the Nation's nuclear power reactors and research and test reactors identify and resolve issues before they affect safe plant operation. The NRC will continue to strengthen reactor oversight activities to provide early identification and management of potential safety issues. These activities include risk-informed inspections, the use of performance indicator data, and the reactor assessment process.

The agency will conduct baseline inspections; supplemental and reactive inspections; and generic issue inspections to address areas of emerging concern or areas requiring increased emphasis because of recurring problems. The requested resources will also support performance-based evaluations and assessments of licensee security programs. The assessment process integrates inspection findings with other objective measures of performance, such as performance indicators, that licensees submit quarterly for each operating power reactor. The requested resources will also provide ongoing support for data collection and analysis to identify industry trends, the significance determination process, and the evaluation of cross-cutting issues in the area of human performance and safety culture.

The agency measures the output of its inspection activities using two measures. The first is the number of plants for which the baseline inspection program was completed during the most recent inspection cycle (see next page). The FY 2009 target is to complete all required baseline

inspection procedures at operating reactors. The second is for Final Significance Determination Process determinations. The Significance Determination Process uses risk insights, where appropriate, to help NRC inspectors and staff determine the safety significance of inspection findings. The target for FY 2009 is that all Final Significance Determination Process determinations are made within 90 days for all potentially greater than green findings (see below).

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	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.			
Actual:	Completed at all reactors.	Completed at all reactors.	Completed at all reactors.	Completed all reactors.		

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.

1	Output Measure: Percentage of Final Significance Determination Process determinations made within 90 days for all potentially greater than green findings.						
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Target:	80%	85%	90%	90%	90%	90%	
Actual:	48%	50%	92%	100%			

#### Enforcement

Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations. Violations are identified through inspections and investigations. All violations are subject to civil enforcement action and may also be subject to criminal prosecution. The agency measures the output of its enforcement activities using two measures. The first is timeliness in completing reviews of technical allegations. Technical allegations are declarations, statements, or assertions of impropriety or inadequacy associated with regulated activities, the validity of which has not been established. This term includes all concerns identified by sources such as the media, individuals, or organizations. The target for FY 2009 is that 90 percent of technical allegations are closed within 150 days, 95 percent within 180 days, and all are closed within 360 days. The second measure is timeliness in completing

enforcement actions. The target for FY 2009 is all investigation cases are closed within 360 days of processing and all non-investigation cases are closed within 180 days (see below).

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
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.	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.
Actual:	90% closed within 150 days. 96% within 180 days. 99% within 360 days.*	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.		

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Investigation cases: <sup>A</sup> 100% completed within 360 days of OE <sup>B</sup> processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time.	Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time.	Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time.	Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time.	Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time	Investigation cases: 100% completed within 360 days of OE processing time. Non-Investigation cases: 100% completed within 180 days of OE processing time
Actual:	Investigation: None $\geq$ 360 days Non-Investigation: none $\geq$ 180 days	Investigation: None $\geq$ 360 days Non-Investigation: none $\geq$ 180 days	Investigation: None $\geq$ 360 days Non-Investigation: none $\geq$ 180 days	Investigation: None $\geq$ 360 days Non-Investigation: none $\geq$ 180 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.

#### Investigations

Investigations are initiated after information concerning potential wrongdoing has been received by the NRC either through an allegation from sources external to the NRC or as a result of inspections performed by agency personnel. A special agent is assigned to recognize, locate, develop and present evidence that will reconstruct events. The agency measures the output of its investigation activities using two timeliness measures. For the first measure, the target for FY 2009 is 80 percent of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less. The target for the second measure is to close all investigations in time to initiate civil and/or criminal enforcement action.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	80% of cases closed on the merits as either substantiated or unsubstantiated 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 10 months or less.
Actual:	Completed 121 reactor cases, in which 80.2% (97) of cases closed on the merits as either substantiated or unsubstantiated were completed in 10 months or less.	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.		

Output M	easure: Timeliness	in completing investiga	ations - Target 2.			
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New Measure in FY 20	007	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.		

A final output measure of nuclear reactor oversight safety activities is the number of operator licensing examinations that are administered. The NRC licenses the individuals who operate the controls of a nuclear power plant. The FY 2009 target is to meet licensee demand estimated at 55 initial operator licensing examination sessions and four generic fundamentals examination sessions.

Output n	neasure: Number of op	erator licensing examir	nations administered.			
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
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 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.
Actual:	Met licensee demand at 45 initial operator licensing examination sessions and 4 generic fundamentals exam sessions.	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.		

**Reactor Oversight Activities:** The following activities support the achievement of NRC's strategic goal on Security.

The NRC ensures reactor security through inspections and oversight to confirm the adequacy of nuclear reactor security in the current threat environment. Security activities will include baseline, force-on-force, and supplemental inspections at each nuclear power plant on a 3-year cycle to assess security system performance and material control and accountability (MC&A) inspections at every nuclear plant site. One way that the agency measures the success of its reactor security program is through the number of force-on-force inspections that are conducted each year. The FY 2009 target is to conduct 21 inspections (see below).

*Program Assessment Rating Tool (PART):* This activity was reviewed as part of the Reactor Inspection and Performance Assessment PART as effective in FY 2003. In the Reactor Inspection and Performance Assessment PART, it was noted that the purpose was clear and that the program was well-designed and results-oriented. In addition, the Reactor Inspection and Performance Assessment PART program has achieved the long-term strategic goal of preventing radiation-related deaths and illnesses, promoting the common defense and security, and protecting the environment in the use of civilian nuclear reactors. The next PART review of this program is currently scheduled to take place in FY 2009 as part of the agency's operating reactors activity.

The following table summarizes the NRC's fall 2007 update regarding the status of the identified follow up actions:

Follow-up Action	Status	Expected Completion Date	Comments
(1) Better linkage of budget requests to accomplishing annual and agency long-term goals is needed. In response, NRC will strengthen the alignment of program performance measures with long-term agency goals.	Completed	Completed 3Q FY 2005	Demonstrated via direct linkage of FY 2005 Operations Plan performance measures to the NRC FY 2004-FY 2009 Strategic Plan strategies for meeting the Strategic Plan objective and goals. Each of the operating plan's safety performance measures references one or more of the strategic plan strategies for safety.
(2) The NRC will better demonstrate contributions of program activities and resources to outcomes and outputs. Through an agency-wide working group, NRC will improve the efficiency of operating plans.	Completed	Completed 2Q FY 2006	Demonstrated through submission of the FY 2007 Performance Budget.

Follow-up Action	Status	Expected Completion Date	Comments
(3) More transparency is needed with respect to how resource allocation decisions are made and how safety indicator goals and program goals contribute to the agency's long-term goals. In response, NRC will better explain the contributions of program activities and resources to outputs. Complete the NRC's review of operating plan format and content to improve the plan's effectiveness as management tools. The scope of the project was separated into two phases to address: (1) improvements that could be implemented in the short-term; and (2) improvements that would require longer-term planning and evaluation. The short-term improvement efforts were completed in December 2004 through the development of a performance reporting framework containing common reporting criteria and format. This framework was implemented during the first quarter of FY 2005. The longer-term efforts to improve the efficiency of operating plans are currently being addressed by an agency-wide working group.	Completed	Completed 2Q FY 2006	Demonstrated through submission of the FY 2007 Performance Budget.
(4) Complete an independent evaluation of the program consistent with guidance in OMB Circular A-11.	Action taken, but not completed	FY 2009	The program is in the process of developing a statement of work for contacting for this evaluation. Prior to awarding the contract, OMB's input on the adequacy of the proposed scope will be solicited.

# FY 2007 Significant Accomplishments

In FY 2007, the Nation's nuclear power plants operated well within the NRC safety goals and objectives. The performance measures for the safety goal document that no plants were operating at unacceptable levels. In addition, the safety indicators for nuclear plants as a whole showed no adverse trends. More than 99 percent of plant safety indicators were reported as green in FY 2007. These positive results show that the NRC and industry safety programs are effective.

*NRC Review of Actions taken by Power Reactor Licensees to Improve Security:* The staff documented reviews of security related actions taken to mitigate events and any potential for releasing radioactivity that could affect public health and safety. The issuance of license conditions to power reactor licensees regarding mitigating strategies to be taken in the event of terrorist attacks is the culmination of significant enhancements made by licensees and the NRC to enhance nuclear power plants' security capabilities. The legally binding license conditions identify specific, required strategies and place the requirement in the license instead of relying on a separate order.

						FY	2009	
	FY 2	007	FY 2 Enac		Requ	uest		e from 2008
Program	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE
Budget Authority by Program								
Program Support	\$11.8	50	\$12.9	56	\$16.0	53	\$3.0	-3
Infrastructure and Support	5.6	12	6.7	16	7.6	18	0.9	2
<b>Total</b> <sup>1</sup>	\$17.4	62	\$19.6	72	\$23.6	71	\$3.9	-1

#### **INCIDENT RESPONSE**

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The Incident Response program increases primarily to support the replacement of the potassium iodide supplies and to implement continuity program requirements of National Communications System Directive (NCSD) 3-10. The FTE resources decrease primarily because of completion of the Incident Response Improvement Plan. In addition, NRC has implemented a change to its budget structure to improve clarity and accountability. In 2008, all reactor oversight and incident response activities were reported under the same program. In 2009, these activities have been split into two separate programs; Reactor Oversight and Incident Response.

**Incident Response Activities:** The following activities support the achievement of NRC's strategic goal on Safety.

Although the NRC ensures that licensees identify and resolve safety issues before they affect safe plant operation, the agency is prepared to respond to incidents or events that affect licensed facilities or operations. The agency will maintain a high state of incident response readiness by coordinating closely with licensees, States, local tribes, and other Federal agencies to ensure a highly effective Federal incident response capability for operational and terrorist events under the National Response Plan and National Incident Management System.

The FY 2009 budget provides resources to enhance and support 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. The agency will continue to implement the potassium iodide supply and replenishment program, which makes potassium iodide available to states for use in an emergency. Potassium iodide, if taken within the appropriate time and at the appropriate dosage, blocks the thyroid gland's uptake of radioactive iodine. The budget also supports 24/7 telecommunications with licensees, stakeholders, and Federal agencies, and the preparation and participation by headquarters and regional offices in radiological and interagency exercises.

The budget also supports the pandemic plan and security-based emergency preparedness exercises. The agency's incident response activities will include headquarters and regional support to work closely with other Federal agencies to maintain incident response capability under the National Response Plan and National Incident Management System, to maintain a

highly effective response capability, and to ensure a coordinated response capability to technological and terrorist events. The resources will support upgraded communication systems for continuity programs required by NCSD 3-10. Resources also support various systems that are a critical part of the incident response system, such as the Operations Center Information Management System which provides the primary communication infrastructure.

The agency measures the readiness of its emergency response activities using an Emergency Response Performance Index. The index measures several activities within the Incident Response Program that are critical to support the agency's preparedness and response ability. The target for FY 2009 is to maintain the index at 100 percent.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	99%	99%	99%	99%	100 %	100 %
Actual:	100%	100%	100%	100%		

*Program Assessment Rating Tool (PART):* The incident response activities were reviewed as part of the Reactor Inspection and Performance Assessment PART completed in 2003. This PART improvement plan is an element of the agency's operating reactor activity, described above under the Reactor Oversight Program. The next PART review of this program is currently scheduled to take place in FY 2009 as part of the agency's operating reactors activity.

# FY 2007 Significant Accomplishments

In FY 2007, the NRC worked with States to address replenishment of potassium iodide supplies as a supplement to public protective action plans within the 10-mile emergency planning zones around nuclear power plants and worked with the U.S. Department of Health and Human Services to distribute pediatric liquid potassium iodide to States that requested it.

The agency upgraded its incident response center, including enhancement of communication systems, replacement of the agency's telephone PBX exchange, and modernization of the Emergency Response Data System. The NRC also began revising emergency preparedness regulations and guidance to address changes in the threat environment and technological and programmatic advancements. Stakeholders, including the public, are actively involved in the revision process. The proactive approach demonstrated by these activities benefits the public by establishing a more robust, effective response framework that can quickly respond to events; coordinate with other Federal, State, and local agencies; and ensure the protection of public health and safety.

The agency uses different types of exercises to test and demonstrate its incident response and emergency preparedness capabilities. The exercises provide training; test the agency's plans, procedures, and guidance documents; and test and evaluate the headquarters' incident response facility and critical incident response communication capabilities. Following each exercise, the NRC performs a detailed, performance-based critique; documents lesson learned; and addresses corrective actions to improve incident response capabilities. The NRC also evaluates licensee performance during exercises, including documentation and completion of corrective actions. In FY 2007, NRC emergency responders participated in 11 exercises at licensee sites, 3 of which included the full NRC response team. In addition, the NRC participated in two Government-wide interagency exercises. The NRC also conducted two other performance-based training activities in the form of tabletop drills.

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The U.S. Nuclear Regulatory Commission (NRC) protects the health and safety of the public and the environment and ensures the secure use and management of radioactive materials through the Nuclear Materials and Waste Safety program. Activities within this area include the regulatory oversight of nuclear fuel cycle facilities, nuclear materials activities, the storage and disposal of high-level waste (HLW), the decommissioning of nuclear reactors and other facilities and low-level waste (LLW) management, and the transportation of radioactive materials and the interim storage of spent nuclear fuel both at and away from reactor sites. This program also includes environmental reviews of these activities conducted as part of the agency's oversight efforts.

						FY 2	009	
	FY	2007	FY 20 Enac		Requ	est	Change FY 20	
Summary	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Contract Support and Travel	\$52.4	710	\$31.8	649	\$52.5	707	\$20.6	58
Program Salaries and Benefits	96.0		91.0		104.5		13.5	
Subtotal Program	\$148.4	710	\$122.9	649	\$157.0	707	\$34.1	58
Infrastructure and Support Contract Support and Travel	32.6	132	36.9	121	43.8	139	6.9	18
Infrastructure Support Salaries and Benefits	18.2		17.0		20.5		3.5	
Subtotal Program	\$50.8		\$53.9		\$64.3		\$10.4	
<b>Total</b> <sup>1</sup>	\$199.2	842	\$176.8	770	\$221.3	845	\$44.6	75

## **BUDGET OVERVIEW**

<sup>1</sup> Numbers may not add due to rounding.

The agency requests \$221.3 million, including 845 FTE, for the Nuclear Materials and Waste Safety program in FY 2009. This represents an increase of \$44.6 million, including 75 FTE, from FY 2008.

This fiscal year (FY) 2009 budget request for the Materials and Waste Safety program supports activities that address the expected growing use of nuclear materials. There has been an increase of approximately 200 to 400 percent in the price of uranium since 2006, which is causing increased investment in uranium recovery facilities. Fourteen companies have indicated to the NRC that they will file applications and amendments to expand, restart, or build new uranium recovery facilities. In addition, the agency will review two new uranium enrichment facilities and expanded operations at existing fuel facilities.

The budget request also reflects continued efforts to implement additional requirements from the Energy Policy Act of 2005, including new licensing authority over naturally occurring and accelerator-produced radioactive material. The agency is also actively involved in the verification of the legitimacy of radioactive materials uses, including an improved nuclear materials licensing process. The agency also plans to undertake important new security activities, including additional security requirements for the control and accountability for radioactive sources.

The agency expects to be very active in handling nuclear waste issues in FY 2009. The agency expects to receive an application from the Department of Energy (DOE) for a high-level waste repository by June 2008. The review of this application will be a major undertaking for the agency. If the application is docketed, a license application review will be conducted, and formal hearings will be held on the safety and environmental impact of the proposed repository. The agency will strive to meet the substantial challenge in completing the safety review and construction authorization decision within the three to four year time period set forth in the Nuclear Waste Policy Act. With the receipt of the license application, pre-license activities will terminate.

The Nuclear Materials and Waste program is carried out under a series of sub-programs that implement the agency's regulatory process for fuel facilities, nuclear materials users, facility decommissioning and low-level waste, spent fuel storage and radioactive material transportation, and the disposal of nuclear waste. These subprograms are listed in the table below.

				FY 2009				
	FY 20	07	FY 20 Enac		Requ	ıest		ge from 2008
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Fuel Facilities	\$34.6	159	\$35.0	159	\$48.5	198	\$13.5	39
Nuclear Materials Users	64.4	312	57.4	270	74.3	307	16.9	37
Decommissioning and Low-Level Waste	28.4	129	28.2	127	35.3	139	7.2	12
Spent Fuel Storage and Transportation	26.0	110	27.2	109	25.9	104	-1.3	-5
Subtotal	\$153.4	710	\$147.7	665	\$184.0	748	\$36.3	83
High-Level Waste Repository	45.8	132	29.0	105	37.3	98	8.3	-7
Total <sup>1</sup>	\$199.2	842	\$176.8	770	\$221.3	845	\$44.6	75

# BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY PROGRAM

<sup>1</sup> Numbers may not add due to rounding.

The increase in Nuclear Materials and Waste program supports review of new uranium recovery applications, restarts, and expansions of existing facilities, and the review of two new uranium enrichment applications. The uranium recovery activities produce the material that is made into nuclear fuel. The uranium enrichment facilities further process the uranium into material that is used in nuclear reactors.

An increase is also requested to support other ongoing nuclear material user and nuclear waste activities. The increase supports the review of two new nuclear fuel enrichment facility applications. The resources will also support the review of a license application for inspection activities at a mixed-oxide fuel fabrication facility that was initiated in FY 2008. In addition, the increase supports enhanced regulatory oversight for material licensing activities. A Government Accountability Office (GAO) investigation recommended that the NRC's review of materials license applications include additional activities to ensure adequate review of the license applications. The development and implementation of a national registry of radioactive sources to improve the controls on

radioactive materials through the National Source Tracking System (NSTS) will be supported by these resources. Resources also support the review of commercial and DOE's transport and storage casework.

The Nuclear Material and Waste Safety program increases are summarized below:

**Fuel Facilities:** The agency requests an increase of \$13.5 million primarily to support the review of two new uranium enrichment facility license applications and continuation of licensing and inspection activities for existing fuel facilities.

**Nuclear Materials Users:** The agency requests an increase of \$16.9 million primarily to support increasing regulatory oversight activities in response to a GAO materials licensing investigation. The request also includes resources for Web-based licensing and the National Source Tracking System (NSTS), and training for Agreement State personnel.

**Decommissioning and Low-Level Waste:** The agency requests an increase of \$7.2 million to support uranium recovery licensing activities and initiation of related environmental reviews.

**Spent Fuel Storage and Transportation:** The agency's request decreases \$1.3 million due primarily to reduced resource allocations for transportation package and storage system design application reviews and the reduced research efforts for the development of the technical basis for fission product burnup credit for the storage and transportation of spent nuclear fuel.

**High-Level Waste Repository:** The agency requests an increase of \$8.3 million to support the NRC's statutory responsibilities regarding the potential DOE application for a HLW repository. Resources are requested to support the agency's review of an expected application from the DOE to store nuclear waste in a repository at Yucca Mountain.

						FY 2009		
	FY 2	2007		2008 Incted	Po	auest		ge from 2008
Program	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$22.7	130	\$22.3	129	\$31.2	158	\$8.9	29
Infrastructure and Support	11.9	29	12.7	30	17.3	40	4.6	10
	\$34.6	159	35.0	159	\$48.5	198	\$13.5	39

## FUEL FACILITIES

<sup>1</sup> Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$48.5 million, including 198 FTE, for its fuel facility activities in FY 2009. The increase of \$13.5 million, including 39 FTE, primarily supports the review of two new uranium enrichment facility license applications, and licensing and inspection activities for existing fuel facilities.

**Fuel Facilities Activities:** These activities support achievement of the NRC's strategic goal on Safety.

The requested resources will support the agency's regulatory activities at fuel cycle facilities and related research. The agency regulates 20 fuel cycle facilities: seven major and nine minor fuel fabrication facilities, two gaseous diffusion enrichment facilities, and two gas centrifuge enrichment facilities.

<u>Licensing Activities</u>: The agency expects to receive two new uranium enrichment facility license applications (AREVA and GE Hitachi) in FY 2008. The review of the GE Hitachi application will be initiated in FY 2008, and the review of the AREVA application will begin in FY 2009. The agency measures the output of its fuel facilities licensing activities (see below).

1	asure: Number of fuel completed per year.	cycle licensing acti	ons (amendments, reno	ewals, new application	s, and reviews) from th	e date of
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:			Complete 53 licensing actions.	Complete 52 licensing actions.	Complete 53 licensing actions.	Complete 53 licensing actions.
Actual:			64 completed	92 completed		
Output mea	asure excludes licensin	g actions involved i	n a hearing.		1	

The agency also measures the timeliness of its fuel facility licensing actions. The target for timeliness is to complete 85 percent of its licensing actions in less than or equal to 150 days and to complete all actions in less than or equal to 1.5 years.

Output Measure: Timeliness of fuel cycle licensing actions (amendments, renewals, new applications, and reviews) from the date of acceptance, excluding request for additional information.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	$75\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$75\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$85\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$85\% \le 150 \text{ days}$ $100\% \le 1.5 \text{ yrs.}$	$85\% \le 150 \text{ days}$ $100\% \le 1.5 \text{ yrs.}$
Actual:	$91\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$98\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$95\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$81\% \le 180 \text{ days}$ $89\% \le 2 \text{ yrs.}$		

#### Inspection Activities

The agency also inspects fuel facilities and measures the output and the timeliness of its inspection activities (see below). The FY 2009 output target is to complete 286 inspection modules.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measu	ire in FY 2006	Complete 165 inspection modules.	Complete 218 inspection modules.	Complete 266 inspection modules.	Complete 286 inspection modules.
Actual:			Completed 202 inspection modules.	Completed 306 inspection modules.		

The target for the timeliness of its inspection activities is to complete greater than 97 percent of inspections activities on time (see below). The number of completed inspections has increased significantly since FY 2006.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	> 90% completed on time.	> 90% completed on time.	> 90% completed on time.	> 93% completed on time.	> 97% completed on time.	> 97% completed on time.
Actual:	98% completed on time.	100% completed on time.	99% completed on time.	100% completed on time.		
	(Completed 78 inspections/98 modules).	(Completed 93 inspections/178 modules).	(Completed 100 inspections/ 202 modules).			

The requested resources will also support the license application review and inspection activities of a mixed-oxide (MOX) fuel fabrication facility. The NRC will extend the license review period for the MOX review from 6 to 12 months beyond the current 3-year schedule. Resources will also support the agency's role in adjudicatory hearings on enrichment facilities.

#### **Enforcement**

Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations. Violations are identified through inspections and investigations. All violations are subject to civil enforcement action and may also be subject to criminal prosecution. The agency measures its fuel facility enforcement activities by measuring its timeliness in completing reviews of technical allegations. Technical allegations are declarations, statements, or assertions of impropriety or inadequacy associated with regulated activities, the validity of which has not been established. This term includes all concerns identified by sources such as the media, individuals, or organizations. The target for FY 2009 is that 90 percent of technical allegations are closed within 150 days, 95 percent within 180 days, and all are closed within 360 days (see below). The target for timeliness has been made significantly more challenging since FY 2007.

Output M	easure: Timelin	ess in completing review	ws for technical allegation	IS.		
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure in FY 2006		$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	80% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	90% ≤ 150 days 95% ≤ 180 days 100% ≤ 360 days
Actual:			$\begin{array}{l} 93\% \leq 150 \; days. \\ 100\% \leq 180 \; days. \\ 100\% \leq 360 \; days \end{array}$	$\begin{array}{l} 100\% \leq 150 \mbox{ days.} \\ 100\% \leq 180 \mbox{ days.} \\ 100\% \leq 360 \mbox{ days} \end{array}$		

**Fuel Facilities Activities:** These activities support achievement of the NRC's strategic goal on Security.<sup>1</sup>

The requested resources will support homeland-security related efforts to conduct physical protection and material control and accounting (MC&A) reviews of NRC-licensed fuel facilities, implement security enhancements, and support the baseline inspection program for physical protection, MC&A, and force-on-force inspections at Category I fuel facilities. The resources will also be used to resolve policy and technical issues and develop strategies to prevent or mitigate potential vulnerabilities. The NRC will enhance the regulatory framework and related licensing and oversight efforts to ensure adequate security of nuclear and radioactive material in the current threat environment.

<sup>&</sup>lt;sup>1</sup> In the following discussions, references to security are intended to reflect homeland security activities.

*Program Assessment Rating Tool (PART):* This program was reviewed as part of the Fuel Facilities Licensing and Inspection PART analysis completed in 2003. The program was rated as effective. The program earned high scores for program purpose and design and program management. Findings from the PART analysis included that the program purpose was clear, the program was well-designed and results oriented, and the program had met all of its strategic goal measures since reporting under the Government Performance and Results Act began in 1997. The next PART review of this program is currently scheduled to take place in FY 2010.

The following table summarizes the NRC's fall 2007 update on the status of the identified PART follow-up actions:

Follow-up Action	Status	Expected Completion Date	Comments
(1) Better linkage of budget requests to accomplishing agency annual and long-term goals is needed. In response, the NRC will strengthen the alignment of program performance measures with long-term agency outcomes.	Completed	3Q FY 2005	Demonstrated via direct linkage of FY 2005 Operations Plan performance measures to the NRC FY 2004-FY 2009 Strategic Plan strategies for meeting the strategic plan objective and goals. Each of the operating plan's safety performance measures reference one or more of the strategic plan strategies for safety.
(2) More transparency is needed in how resource allocation decisions are made and how the program contributes to achievement of the agency's long- term goals. In response, the NRC will better demonstrate contributions of program activities and resources to outputs.	Completed	2Q FY 2004	This action was completed July 2004.
(3) The NRC will better demonstrate contributions of program activities and resources to outcomes and outputs. Through an agency-wide working group, NRC will improve the efficiency of operating plans. The scope of the project was separated into two phases to address: 1) improvements that could be implemented in the short-term; and 2) improvements that require longer-term planning and evaluation.	Completed	4Q FY 2007	The NRC has completed and tested an agency wide executive level operating plan that has a common format and is located on a shared drive for efficiency. The new agency-wide plan is being implemented in FY 2008. Office operating plans include the agency-wide information and additional detailed information which allows easy integration of the common information. Both operating plans are aligned with the strategic plan goals and metrics and reflect the approved budgeted resources and planned activities to achieve those goals.

In addition, OMB recommended that the NRC conduct more regular, independent evaluations of program effectiveness to confirm that the program is achieving its intended results. The NRC will conduct regular, broad, independent evaluations of the effectiveness of the Fuel Facilities program. The NRC has demonstrated compliance with this recommendation through its plans for continued use of information from the Office of the Inspector General (OIG) audits, reviews by the Advisory

Committee for Reactor Safety, and reviews by the Advisory Committee for Nuclear Waste to evaluate the effectiveness of agency programs. In FY 2005, licensees regulated under the Fuel Facilities program began to provide integrated safety analysis (ISA) summaries for NRC review. The ISAs are risk-informed evaluations of the facilities. The NRC will use the results of these analyses to evaluate the effectiveness of its regulation and facility oversight efforts.

# FY 2007 Significant Accomplishments

The NRC conducted several significant fuel cycle licensing reviews in FY 2007. The agency completed license renewals for BWX Technologies, Inc., and Westinghouse Electric Co., LLC. To ensure that the fuel facilities are operating safely and securely, the agency reviewed, among other issues, safety analyses for controlling hazardous materials and the engineered and human performance barriers relied on to control hazardous materials. The NRC also conducted comprehensive reviews of first-of-a-kind ISA summaries submitted by licensees in response to new requirements in the domestic licensing of special nuclear material. An ISA increases the use of risk information to identify hazards, the engineered and human performance barriers relied on to control hazards, and the management measures to ensure that controls are available and reliable. The NRC completed ISA summary reviews for Westinghouse Electric Co., LLC; Nuclear Fuel Services; and AREVA NP, Inc. The NRC also completed a review of the 2006 annual ISA updates (received in January 2007) for five fuel facilities.

The NRC issued a license to USEC Inc., to construct and operate the American Centrifuge Plant (ACP). This is the second license issued by the NRC for a full-scale uranium enrichment plant. The ACP will use gas centrifuge technology to enrich uranium. The enriched uranium generated by this facility will provide fuel for nuclear power plants. Both the ACP and the Louisiana Energy Services National Enrichment Facility, another gas centrifuge facility, are currently under construction.

						FY 2009		
	FY 2	2007		2008 acted	Re	quest		ge from 2008
Program	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE	\$M	FTE
<b>Budget Authority by Program</b>								
Program Support	\$50.0	276	\$45.1	240	\$58.5	270	\$13.4	30
Infrastructure and Support	14.4	36	12.3	29	15.8	36	3.5	7
<b>Total</b> <sup>1</sup>	\$64.4	312	\$57.4	270	\$74.3	307	\$16.9	37

# NUCLEAR MATERIALS USERS

<sup>1</sup> Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$74.3 million, including 307 FTE, for activities to regulate Nuclear Material Users. This represents an increase of \$16.9 million and 37 FTE over the FY 2008 current estimate. The increase will primarily support an improved nuclear materials users licensing review process in response to the findings of a GAO investigation, resources for a web-based licensing system and the National Source Tracking System (NSTS), training for Agreement State personnel, and new licensing requirements mandated by the Energy Policy Act of 2005 to regulate naturally occurring and accelerator-produced radioactive material.

**Nuclear Materials Users Activities:** These activities support achievement of the NRC's strategic goal on Safety.

The Nuclear Material Users sub-program regulates medical, industrial, and academic users of nuclear materials. The agency oversees 4,400 licenses for these users of nuclear materials and conducts approximately 1,500 health inspections of these licensees annually. In addition, the agency's 34 Agreement States oversee over 17,800 licenses. These Agreement States have assumed regulatory responsibilities for overseeing medical, industrial, and academic users of nuclear materials within their borders.

#### Licensing

The agency expects to complete approximately 3,100 materials licensing actions and 1,500 routine health and safety inspections in FY 2009. The NRC will also complete approximately 20-25 materials and waste rulemakings. The requested resources will support licensing and additional inspections to carry out the NRC's new regulatory responsibilities for naturally occurring and accelerator-produced radioactive material.

The agency's requests will support the development of an improved, web-based licensing system. The new system will replace current systems and eliminate the need for redundant data entry and manual procedures for reporting. The new web-based system is expected to become operational in FY 2009.

Resources support an increased regulatory effort in response to recommendations from the GAO, the U.S. Senate Permanent Subcommittee on Investigations, and the OIG. The findings of these

investigations were addressed in the staff-developed GAO Action Plan approved by the Commission. Resources are for inclusion of additional sources into the NSTS, completion of the web-based licensing system, and continued implementation of changes to the materials licensing process to ensure adequate review of license applications and to ensure that radioactive materials are not used in a malevolent manner.

The agency measures the output of its nuclear material users license review process in several ways. The first is to measure the percentage of materials and waste rulemaking activities completed on schedule. Rulemaking activities for all activities in the Nuclear Materials and Waste Safety program are accounted for in the Nuclear Materials Users subprogram. The target is to complete 90 percent of the rulemaking activities on schedule.

Output Mea	asure: Percentage of Mate	erials and Waste rulem	aking activities completed	on schedule.				
	FY 2005	FY 2005         FY 2006         FY 2007         FY 2008						
Target:		New me	easure in FY 2009		90%			
Actual:								

Another important measure of the agency's nuclear material users licensing process is to ensure that the license review process is conducted in a timely fashion. The FY 2009 target to review applications for new materials licenses and license amendments is to complete 85 percent of licensing actions within 90 days and all within 2 years. The FY 2009 target to review applications for materials license renewals and sealed source and device designs is to complete 80 percent of licensing actions within 180 days and all within 2 years (see below).

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	$85\% \le 90$ days $100\% \le 1$ yr.	$85\% \le 90$ days 100% $\le 1$ yr.	$90\% \le 90$ days $100\% \le 1$ yr.	$92\% \le 90$ days $100\% \le 1$ yr.	$80\% \le 90$ days $100\% \le 2$ yrs.	$85\% \le 90$ days $100\% \le 2$ yrs.
Actual:	$97\% \le 90$ days (2,644 of 2,711) $99.9\% \le 1$ yr. (2,709 of 2,711)	$97\% \le 90$ days (2,568 of 2,641) $99.9\% \le 1$ yr. (2,638 of 2,641)	$\begin{array}{l} 98\% \leq 90 \text{ days} \\ (2,661 \text{ of } 2,703) \\ 100\% \leq 1 \text{ yr.} \\ (2,703 \text{ of } 2,703) \end{array}$	$\begin{array}{l} 98\% \leq 90 \text{ days} \\ (2,520 \text{ of } 2,577) \\ 99.8\% \leq 1 \text{ yr.} \\ (2,575 \text{ of } 2,577) \end{array}$		

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	$85\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$85\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$90\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$92\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 180 \text{ days}$ $100\% \le 2 \text{ yrs.}$
Actual:	$98\% \le 180$ days (663 of 678) $99.9\% \le 2$ yrs. (677 of 678)	$96\% \le 180 \text{ days}$ (608 of 633) $100\% \le 2 \text{ yrs.}$ (633 of 633)	$94\% \le 180$ days (309 of 329) $100\% \le 2$ yrs. (329 of 329)	$98\% \le 180 \text{ days}$ (109 of 111) $100\% \le 2 \text{ yrs.}$ (111 of 111)		

# Inspection

The agency expects to complete 1,500 routine health and safety inspections in FY 2009. The agency measures the output of its inspection activities for nuclear materials users by the timeliness of its safety inspections of materials licensees. The target for safety inspections of materials licensees is to complete greater than 98 percent on time in FY 2009. The target for this measure has increased significantly since FY 2007.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	> 90% completed on time.	> 90% completed on time.	> 90% completed on time.	> 90% completed on time.	> 95% completed on time.	> 98% completed on time.
Actual:	99% completed on time (completed 1,275).	99% completed on time (completed approximately 1,300).	99% completed on time (completed approximately 1,152).	99% completed on time (completed approximately 1,225).		

# Enforcement

Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations. Violations are identified through inspections and investigations. All significant violations are considered for civil enforcement action and the most serious violations may also be considered for criminal prosecution. The agency measures the output of its enforcement activities using two measures. The first is timeliness in completing reviews of technical allegations. Technical allegations are declarations, statements, or assertions of impropriety or inadequacy associated with regulated activities, the validity of which has not been established. This term includes all concerns identified by sources such as the media, individuals, or organizations. The target for FY 2009 is that 90 percent of technical allegations are closed within 150 days, 95 percent within 180 days, and all are closed within 360 days (see next page). The target for timeliness of technical allegation reviews has been made significantly more challenging since

FY 2007. The second measure is timeliness in completing enforcement actions. The target for

FY 2009 is all investigation cases are closed within 360 days of processing and all non-investigation cases are closed within 180 days.

Output Measure: Timeliness in completing reviews for technical allegations.						
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	$70\% \le 150 \text{ days}$ $90\% \le 180 \text{ days}$ $100\% \le 360 \text{ days}$	80% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days	90% ≤ 150 days 95% ≤ 180 days 100% ≤ 360 days
Actual:	$90\% \le 150 \text{ days}$ $97\% \le 180 \text{ days}$ . $99\% \le 360 \text{ days}$	$96\% \le 150 \text{ days}$ $99\% \le 180 \text{ days}.$ $100\% \le 360 \text{ days}$	$96\% \le 150 \text{ days}$ $100\% \le 180 \text{ days}.$ $100\% \le 360 \text{ days}$	$90\% \le 150 \text{ days}$ $99\% \le 180 \text{ days}.$ $100\% \le 360 \text{ days}$		

Output Meas	sure: Timeliness in c	ompleting enforcer	ment actions.			
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure in FY 2006		Investigation cases:	Investigation cases:	Investigation cases:	Investigation cases:
			100% completed within 360 days of OE processing time.	100% completed within 360 days of OE processing time.	100% completed within 360 days of OE processing time.	100% completed within 360 days of OE processing time.
			Non-Investigation cases:	100% completed within 180 days of OE processing time.	Non-Investigation cases:	Non-Investigation cases:
			100% completed within 180 days of OE processing time.		100% completed within 180 days of OE processing time.	100% completed within 180 days of OE processing time.
Actual:			Investigation: None $\geq$ 360 days	Investigation: None $\geq$ 360 days		
			Non-Investigations: None $\geq$ 180 days	Non-Investigations: None $\geq$ 180 days		

# Investigations

Investigations are initiated after information concerning potential wrongdoing has been received by the NRC either through an allegation from sources external to the NRC or as a result of inspections performed by agency personnel. A special agent is assigned to recognize, locate, develop and present evidence that will reconstruct events. The agency measures the output of its investigation activities using two timeliness measures. For the first measure, the target for FY 2009 is 85 percent of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less. The target for the second measure is to close all investigations within the time provided under the Statute of Limitations to be able to initiate civil and/or criminal enforcement action.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	80% of cases closed on the merits as either substantiated or unsubstantiated 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.	85% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	85% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.	85% of investigations which developed sufficient information to reach a conclusion regarding wrongdoing will be completed in 10 months or less.
Actual:	Completed 69 cases of which 92.8% (64) of cases were closed on the merits as either substantiated or unsubstantiated were completed in 10 months or less.	Completed 45 investigations in which 75.6% (34) developed sufficient information to reach a conclusion regarding wrongdoing in 10 months or less.	Completed 49 investigations in which 83.7% (41) developed sufficient information to reach a conclusion regarding wrongdoing in 10 months or less.	Completed 26 investigations in which 96.2% (25) developed sufficient information to reach a conclusion regarding wrongdoing were completed in 10 months or less.		

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New measure in FY 2007		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.		

# Import/Export Authorizations

Certain nuclear materials must be approved for import or export. Before approving an export license, the NRC determines that the proposed export is not inimical to the common defense and security of the United States. In making this determination, the Commission, in consultation with the Executive Branch, considers whether the importing country has the technical and administrative

capability and the resources and regulatory structure to manage the material in a safe and secure manner, and has authorized the recipient to receive and possess the material. Import licenses are granted only after NRC determines the import would not be inimical to the common defense and security of the United States or pose a threat to public health and safety.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Complete reviews for and issue as appropriate, approximately 85- 125 NRC import/export authorizations (NRC licenses or amendments). Reviews will be completed for 100% of the cases within 60 days.	Complete reviews for and issue as appropriate, approximately 85- 125 NRC import/export authorizations (NRC licenses or amendments). 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 amendments). 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 amendments). 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 amendments). 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 amendments). Staff reviews will be completed for 100% of the cases within 60 days.
Actual:	Completed 85 staff reviews. 100% were completed within 60 days.	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 completed within 60 days.		

## Agreement States

The NRC will conduct materials activities related to Agreement States, including oversight, technical assistance, regulatory development, and cooperative efforts. An increase in resources will allow the agency to offer greater assistance for Agreement State staff training and will provide funding to support the cost of training and the associated travel costs.

In addition, resources will be used to conduct NRC's Agreement States liaison activities regarding enhanced control and security actions for materials licensees, as well as cooperative efforts and liaison with all State and local governments, Tribal organizations, and interstate organizations in matters relating to homeland security for nuclear waste and materials.

**Nuclear Materials Users Activities:** These activities support achievement of the NRC's strategic goal on Security.

The requested resources support the development and implementation of the national registry, the National Source Tracking System (NSTS), of radioactive sources of concern to improve controls on risk-significant radioactive materials to prevent their malevolent use. The agency will conduct inspections to ensure that increased controls are being followed at materials facilities, as well as conduct pre-licensing inspections of new materials applicants. The resource request will also support implementation of recommendations from the interagency Task Force on Radiation Source

Protection and Control. All of these activities will strengthen controls for the possession, handling, import, and export of nuclear materials.

*Program Assessment Rating Tool (PART):* This program was reviewed as part of the Nuclear Materials Users Licensing and Inspection PART analysis completed 2004. This program was rated as effective. The next PART review of this program is currently scheduled to take place in FY 2011.

In response to the OMB's findings, the following table summarizes the NRC's fall 2007 update to OMB regarding the status of the identified follow-up actions:

Follow-up Action	Status	Expected Completion Date	Comments
(1) Provide with the FY 2007 budget a clearer demonstration of the contributions of specific program activities to agency goals.	Completed	2Q FY 2006	
(2) Create program goals that will support the mission of the agency. Complete the NRC review of operating plan format and content to improve the plans effectiveness as management tools. This project will be carried out in two phases to address: 1) improvements that can be implemented in the short-term; and 2) improvements that will require longer-term planning and evaluation. The short-term improvement efforts were completed in December 2004 through the development of a performance reporting framework containing common reporting criteria and format. This framework was implemented during the first quarter of FY 2005. The longer-term efforts to improve the efficiency of operating plans are currently being addressed by an agency-wide working group.	Completed	4Q FY 2007	The NRC has completed and tested an agency wide executive level operating plan that has a common format and is located on a shared drive for efficiency. The new agency-wide plan is being implemented in FY 2008. Office operating plans include the agency-wide information and additional detailed information which allows easy integration of the common information. Both operating plans are aligned with the strategic plan goals and metrics and reflect the approved budgeted resources and planned activities to achieve those goals.
(3) Schedule an evaluation of the program consistent with guidance in OMB Circular A-11 prior to the submission of the 2007 Budget. Discuss with OIG the feasibility of having them conduct independent evaluations as required in PART assessments. NRC's OIG is currently conducting a review in the Nuclear Materials Users program area.	Action taken, but not completed	FY 2010	The NRC will actively engage the OIG on planned PART reviews so that the OMB can fully consider scheduling beneficial evaluations in the formulation of the OIG Annual Audit Plan. Because the OIG has independence and has direct access to agency records and material, the Commission believes that reliance on the OIG to perform upcoming PART reviews is the most operationally effective approach. In addition, the Commission has directed the staff to contract with an outside organization to conduct independent program evaluations. NRC is in the process of contracting with an outside organization (such as a university, consulting firm, Federally Funded Research and Development Center, or private non-profit or not-for-profit group) on a pilot basis. Following

Follow-up Action	Status	Expected Completion Date	Comments
			completion of the first two evaluations, the NRC will assess the quality of the external evaluations, the effectiveness in identifying implementation actions that have the potential to improve organizational performance, and will make a determination on whether these external evaluations should continue on a routine basis.

## FY 2007 Significant Accomplishments

In FY 2007, the NRC conducted approximately 3,000 materials licensing actions and 1,225 material users inspections.

The NRC is assisting U.S. Customs and Border Protection in fulfilling its Congressional mandate to verify the legitimacy of radioactive material shipments coming into the United States through established ports of entry. The NRC regularly provides customs and border protection staff with information on the licensing of radioactive materials, including import and export licensing data, and has established processes to provide around-the-clock technical support.

The NRC completed the interim inventory of high-risk sources, defined as IAEA Category 1 and Category 2 sources. This inventory was useful in supporting Government efforts to respond to national emergencies and nationally significant events. The NRC also used the inventory to enhance the safety, security, and control of radioactive sources, including issuance of increased control orders. In FY 2007, to support future enhancements of safety and security, the inventory was expanded to include data on generally and specifically licensed sources above Category 3.5 quantities.

The NRC worked with the Agreement States to impose additional safety and security measures on licensees that possess quantities greater than those specified in IAEA Category 2. In addition to evaluating the need to further enhance security at byproduct material licensees, the NRC inspected licensee compliance with these safety and security measures and coordinated with Agreement States to identify and resolve any implementation issues. The NRC also issued security orders to irradiator facilities, manufacturer and distributor facilities, and licensees shipping IAEA Category 1 quantities, requiring this group of licensees to implement a program to fingerprint and conduct a criminal history check for persons seeking access to safeguards information and licensed material. The NRC revised its process for reviewing new license applications to provide increased assurance that licensed material will be used as intended, primarily through conduct of prelicensing inspections.

*Rulemaking Activities:* In FY 2007, the NRC published several rules that certify the safety of casks for storage of spent nuclear fuel, implementing a NSTS for certain sealed sources, and issuance of the final rule on Naturally-occurring and Accelerator-produced Radioactive Materials (NARM).

*Investigation and Enforcement:* In FY 2007 NRC issued approximately 50 escalated actions, 10 of which included the issuance of civil penalties. Significant violations identified included failure to (1) maintain control over licensed material, (2) comply with requirements of the increased controls order, (3) use two independent methods to secure a portable gauging device to deter/prevent theft, (4) secure licensed material from unauthorized access, and (5) submit accurate information to the NRC.

*Intergovernmental Activities:* The NRC, with the assistance of the Agreement States, completed nine integrated materials performance evaluation program reviews to determine the adequacy and compatibility of those Agreement State programs with NRC requirements and one review for the materials licensing and inspection program in Region III. Three States (Nebraska, Massachusetts, and Ohio) signed an addendum that modified their respective Section 274i agreements under the Atomic Energy Act to perform security inspections, for and on behalf of the NRC, of materials licensees authorized to possess and transport items containing radioactive material in quantities of concern.

						F	Y 2009	
	FY 2	2007		2008 acted	Ree	quest	Chang FY 2	
Program	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$19.4	106	\$18.8	105	\$23.7	113	\$4.9	8
Infrastructure and Support	9.0	23	9.3	22	11.6	27	2.2	4
	\$28.4	129	\$28.2	127	\$35.3	139	\$7.2	12

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

<sup>1</sup> Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$35.3 million, including 139 FTE, for decommissioning and low-level waste activities in FY 2009. This represents an increase of \$7.2 million, including 12 FTE, from FY 2008. The increased resources will support uranium recovery licensing activities and the initiation of related environmental reviews.

**Decommissioning and Low-Level Waste Activities:** These activities support achievement of the NRC's strategic goal on Safety.

When a power company decides to close its nuclear power plant permanently, the facility undergoes decommissioning to remove it safely from service and reduce residual radioactivity to a level that permits release of the property and termination of the operating license. There are currently 15 nuclear power plant units or early demonstration reactors that have been permanently shut down and are in some phase of the decommissioning process. Low-level waste disposal occurs at commercially operated low-level waste disposal facilities that can be licensed by either the NRC or Agreement States. The three facilities currently operating as State licensees are Barnwell (State of South Carolina), Energy Solutions (State of Utah), and Hanford (State of Washington).

### Uranium Recovery Facilities

The requested resources will support the initiation of safety reviews and some environmental reviews for 21 expected new applications, restarts, and expansions of existing facilities. The increase in uranium ore prices has spurred a renewed interest in mining activities to produce the uranium ore that is processed into nuclear fuel. Resources would also support associated hearings, if requested.

### Low-level Waste Activities

The program supports Low-level Waste (LLW) licensing activities such as onsite disposal, the review of international experience, guidance development, and import/export reviews. This program also supports low-level waste interactions with and technical assistance to DOE, the Advisory Committee on Nuclear Waste and Materials, and the Agreement States on important LLW regulatory issues. The agency will evaluate two DOE waste determinations covering tanks at the Savannah River Site and will conduct monitoring activities of DOE's disposal activities at the Savannah River

Site and the Idaho National Laboratory. <u>Decommissioning</u>

The requested resources will also support the management of approximately 65 complex materials, power reactor, research and test reactor, and inactive uranium recovery facilities undergoing decommissioning, including license termination of two sites.

The agency measures the output of its environmental activities in several ways. The first is to measure support program licensing activities by preparing and/or reviewing required environmental reports. The target in FY 2009 is to complete one final environmental impact statement and draft environmental impact statement, and three complex environmental assessments (see below).

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Complete 1 final EIS and 1 draft EIS.*	Complete 1 final EIS and 1 draft EIS.*	Complete 1 final EIS and 1 draft EIS.*	Complete 1 final EIS or draft EIS.*	Complete 2 final EISs or draft EISs.*	Complete 1 final EIS or draft EIS.*
				Complete 3 complex EAs.	Complete 3 complex EAs.	Complete 3 complex EAs.
Actual:	Completed 1 DEIS (LES) and completed 1 FEIS (published Foster Wheeler FEIS, NUREG- 1773, in January 2004).	Completed 2 Final EIS (LES, MOX) and 2 draft EIS (USEC, DEIS for controlling the disposition of solid materials rulemaking)	Completed 1 Final EIS (USEC), completed comments as a cooperating agency on the draft West Valley 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, Westinghouse License Renewal EA and the Rancho Seco EA.)		

The second measure is to 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.

		g	rted by Decommissioning I		
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:			Support preparation of final Categorical Exclusion Rulemaking.*		
Actual:					

The last measure is to clean-up complex materials, fuel cycle sites, and power reactors, and complete uranium recovery licensing actions. The target is to complete decommissioning and uranium recovery licensing actions as scheduled in the Decommissioning Operating Plan.

1	FY 2004	FY 2005	cycle sites, and power read FY 2006	FY 2007	FY 2008	FY 2009
Target:	Remove 1 site from SDMP list after satisfactory clean-up. Conduct 90-day Acceptance Review.	Develop a risk- informed, graded approach to prioritize and manage decommissioning licensing and inspection. Complete high priority licensing actions as scheduled in the Decommissioning Operating Plan.*	Complete final guidance to address issues identified in the license termination rule analysis and provide risk-informed approaches for restricted use, more realistic scenarios, and preventing future legacy sites. Complete high-priority licensing actions as scheduled in the Decommissioning Operating Plan.	Complete licensing actions as scheduled in the Decommissioning Operating Plan. Conduct PART for the Decommissioning and Low-Level Waste program. Complete proposed rule to prevent future legacy sites.	Complete decommissioning and uranium recovery licensing actions as scheduled in the Decommission -ing Operating Plan. Complete final rule to prevent future legacy sites.	Complete decommissioning and uranium recovery licensing actions as scheduled in the Decommissionin g Operating Plan.
Actual:	2 sites removed from SDMP (B&W Parks Township and Molycorp- York). 2 complex sites also removed (Envirotest labs and University of Wyoming). Acceptance reviews were completed within timeliness goals.	Developed a risk- informed, graded approach to prioritize and manage decommissioning licensing and inspection. Completed decommissioning at 8 sites; approved 6 decommissioning /License Termination Plans, and approved 4 final site radiation surveys.	Completed revision to NUREG-1757 Volumes 1 and 2 to incorporate decommissioning lessons-learned and issues 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 decommissioning at 7 sites.	Completed proposed rule to prevent future legacy sites. Conducted PART for the DLLW Program; program rated 'effective'' by OMB. Completed decommissioning at 11 sites.		

Output M	Output Measure: Clean-up complex materials, fuel cycle sites, and power reactors; complete uranium recovery licensing actions.							
	FY 2004         FY 2005         FY 2006         FY 2007         FY 2008         FY 2009							
SDMP lis	0	All sites, including thos	e to discontinuance of the e with complex technical a	· · · · · · · · · · · · · · · · · · ·	U			

### Waste-Incidental to Reprocessing (WIR)

Resources are also provided for waste-incidental to reprocessing activities. The requested resources provide oversight of certain DOE waste determination activities and plans consistent with the NRC's responsibilities described in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (NDAA). This act requires DOE to consult with the NRC on its WIR determinations for facilities in South Carolina and Idaho, and directs the NRC to monitor DOE disposal actions to assess compliance with the performance objectives. The agency measures the output of its WIR review activities. The target in FY 2009 is to complete the WIR review and monitoring plan/activities as scheduled in the Environmental Protection and Performance Assessment Operating Plan.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure	e in FY 2006	Complete 2 WIR reviews.	Complete 2 WIR Monitoring 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 monitoring activities as scheduled 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 Environmental Protection and Performance Assessment Operating Plan.
Actual:			Met Target.*	Completed 2 WIR Monitoring Plans (INL and SRS) Issued the Draft Final WIR SRP (NUREG-1854) Completed resolution of 2 WIR generic technical and policy issues.		

*Program Assessment Rating Tool (PART):* This program was reviewed as part of the Decommissioning and Low Level Waste PART analysis completed 2007. This program was rated as effective. The program earned high scores for program purpose and design and for program management. Findings from the PART analysis included that the program purpose was clear and that the regular independent assessments the program uses have helped it to become more results focused. The program achieves its long term safety and security goals with respect to the safe management and cleanup of an increasing number of NRC licensed sites that use radioactive material. The next PART review of this program is currently scheduled to take place in FY 2011.

The following table summarizes the improvement plan actions identified by OMB:

Follow-up Action	Status	Expected Completion Date	Comments
Developing additional efficiency measures to augment those already in place, including the updating of baseline data, to provide a means to systematically measure and monitor efficiencies, as well as targets that demonstrate improved efficiency or cost effectiveness over the previous year.	Action taken, but not completed	FY 2010	NRC staff has initiated a new effort to improve the efficiency of certain licensing actions that will result in reductions in costs and time. In FY 2009 staff will work to develop a rulemaking to address certain licensing actions. Staff will also collect baseline data on time and costs for certain licensing actions to evaluate how the new rule effects the time and cost of these licensing actions.
Developing better linkage of budget requests to the program's success in accomplishing annual and agency long term goals. In reviewing the budget, the program tracks many measures, but there needs to be a clear connection of how funding impacts goal achievement.	Action taken, but not completed.	June 30, 2008	This action will be addressed through implementation of the new Executive Order on Improving Government Performance. The NRC CFO has been designated as the agency's Performance Improvement Officer.

## FY 2007 Significant Accomplishments

In FY 2007, the NRC terminated the licenses or completed decommissioning activities, and the associated performance assessment and environmental reviews at two power reactors, three research and test reactors, and six complex materials sites. The staff also completed a low-level waste

strategic assessment that prioritized activities to ensure guidance was risk-informed and updated to support future activities.

The NRC continued its responsibilities for reviewing DOE WIR determinations for the Savannah River Site and the Idaho National Laboratory. In FY 2007, the NRC developed guidance for reviewing DOE waste incidental to reprocessing activities. In addition, specific monitoring plans were prepared for the Savannah River Site and the Idaho National Laboratory.

						F	Y 2009	
	FY 2	2007		2008 acted	Ree	quest	Chang FY 2	e from 2008
Program	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	\$M	FTE
Budget Authority by Program								
Program Support	\$17.5	90	\$17.9	87	\$16.6	83	-\$1.2	-4
Infrastructure and Support	8.5	20	9.3	22	9.3	21	-0.1	-1
<b>Total</b> <sup>1</sup>	\$26.0	110	\$27.2	109	\$25.9	104	-\$1.3	-5

### SPENT FUEL STORAGE AND TRANSPORTATION

<sup>1</sup>Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$25.9 million, including 104 FTE, for spent fuel storage and transportation activities in FY 2009. This represents a decrease of \$1.3 million, including 5 FTE, from FY 2008. The spent fuel storage and transportation resources decrease due primarily to reduced resource allocations for transportation package and storage system design application reviews, and the reduced research efforts for the development of the technical basis for fission product burnup credit for the storage and transportation of spent nuclear fuel.

**Spent Fuel Storage and Transportation Activities:** These activities support achievement of the NRC's strategic goal on Safety.

The Spent Fuel Storage and Transportation program licenses, certifies, and inspects 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 NRC expects to review 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, and route approvals.

#### Licensing

The agency's review of transportation license requests protects public health and safety by ensuring that shipments of nuclear materials are made in NRC-approved packages that meet rigorous performance requirements. The agency's review of interim storage verifies that spent fuel is safely stored, thereby enabling continued reactor operations. The agency will review 60-70 transportation packages, 20-25 spent fuel storage cask designs and storage facility license reviews, and 25 package design quality assurance programs to confirm that applicant-proposed designs are consistent with regulatory requirements. The agency measures the output of its Spent Fuel Storage and Transportation license review process through two timeliness measures. The first is to complete 80 percent of transportation container design reviews in less than or equal to 12.6 months and all reviews within two years. The second is to complete 80 percent of storage container and installation design reviews within 7.4 months and all within two years (see below).

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	$80\% \le 14 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 14 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 13.3$ mos. $100\% \le 2$ yrs.	$80\% \le 12.6$ mos. $100\% \le 2$ yrs.	$80\% \le 12.6* \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 12.6$ mos. $100\% \le 2$ yrs.
Actual:	$88\% \le 14 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$82\% \le 14 \text{ mos.}$ $89\% \le 2 \text{ yrs.*}$	$85\% \le 13.3 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$100\% \le 12.6$ mos. $100\% \le 2$ yrs.		
applicant profile als without p	s "bundling" of multip so changed as a result o rior NRC approval, res	le requests in a single a of revisions to 10 CFR sulting in a 20 percent	pplication, and update Part 72 that reduced re reduction in forecasted	ed labor rates for the cu egulatory burden on lic l amendment application	n the increased technic irrent mix of casework. ensees and allowed ceions, beginning in FY 20 ates had last been upda	The casework tain changes 004. The labor rates

budget, based on expenditures during FY 2004 and FY 2005.

Output	Measure: Complete t	ransportation containe	r design reviews wit	hin timeliness goals.		
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Targe t:	$80\% \le 8$ mos. $100\% \le 2$ yrs.	$80\% \le 8 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$80\% \le 7.7$ mos. $100\% \le 2$ yrs.	$80\% \le 7.4$ mos. $100\% \le 2$ yrs.	$80\% \le 7.4*$ mos. 100% $\le 2$ yrs.	80% ≤ 7.4 mos. 100% ≤ 2 yrs.
Actua 1:	$93\% \le 8 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$89\% \le 8 \text{ mos.}$ $100\% \le 2 \text{ yrs.}$	$96\% \le 7.7$ mos. $100\% \le 2$ yrs.	$92\% \le 7.4$ mos. $100\% \le 2$ yrs.		

\*The target for FY 2008 has been amended 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 casework profile also changed as a result of revisions to 10 CFR 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. The labor rates have also been 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.

## Inspections

The NRC periodically inspects the design, fabrication, and use of dry cask storage systems by sending inspectors to licensee and cask vendor facilities. The inspectors examine whether licensees and vendors are performing activities in accordance with radiation safety requirements, licensing and certificate of compliance requirements, and quality assurance program commitments. The agency measures the output of its spent fuel storage and transportation inspection activities by measuring the number of inspections completed. The target for FY 2009 is to complete 16 inspections.

Output M	Output Measure: Number of spent fuel storage and transportation inspections completed.						
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Target:			16 inspections	16 inspections	16 inspections	16 inspections	
Actual:	New measur	e in FY 2006	16 inspections	16 inspections			

**Spent Fuel Storage and Transportation Activities:** These activities support achievement of the NRC's strategic goal on Security.

Resources are provided for security reviews for ISFSIs and transportation of radioactive material in quantities of concern. Resources are also provided for homeland security activities to implement security enhancements through rulemaking, as necessary, to implement a baseline inspection program for physical protection.

*Program Assessment Rating Tool (PART):* This program was reviewed as part of the Spent Fuel Storage and Transportation Licensing and Inspection PART analysis completed 2005. This program was rated as effective. The program earned high scores for program purpose and design and for program management. Findings from the PART analysis included that the purpose was clear and the program used operating plan information to manage and improve program performance. The next PART review of this program is currently scheduled to take place in FY 2010.

The following table summarizes the NRC's fall 2007 update to OMB regarding the status of the identified follow-up actions:

Follow-up Action	Status	Expected Completion Date	Comments
(1) The Program does not have assessments performed regularly. There have been evaluations performed by independent entities, such as NAS, GAO, and the NRC OIG, that have touched upon some aspects of the program. However, there has not been a comprehensive assessment of the type described in the PART guidance. Over the coming year, the program needs to secure a regularly scheduled independent assessment of sufficient scope and quality, including an evaluation of the program's annual and long term performance measures, ability to deliver results to all relevant stakeholders, and efficiency and effectiveness with regard to strategic planning and program management.	Action taken, but not completed	FY 2009	The NRC will actively engage the OIG on planned PART reviews so that the OMB can fully consider scheduling beneficial evaluations in the formulation of the OIG Annual Audit Plan. Because the OIG has independence and has direct access to agency records and material, the Commission believes that reliance on the OIG to perform upcoming PART reviews is the most operationally effective approach. In addition, the Commission has directed the staff to contract with an outside organization to conduct independent program evaluations. NRC is in the process of contracting with an outside organization (such as a university, consulting firm, Federally Funded Research and Development Center, or private non-profit or not-for-profit group) on a pilot basis. Following completion of the first two evaluations, the NRC will assess the quality of the external evaluations, the effectiveness in identifying implementation actions that have the potential to improve organizational performance, and will make a determination on whether these external evaluations should continue on a routine basis.

Follow-up Action	Status	Expected Completion Date	Comments
<ul> <li>(2) Resource needs are not presented in a complete and transparent manner. Over the coming year, the program will update the operating and leadership plans to include strategic outcomes and performance measures provided in the agency budget document and strategic plan. This will help provide transparency and strengthen the alignment of the program operations with the goals of the agency's budget document will be updated to state which strategic outcomes and performance measures apply to each program in each program section, and will cross-reference these measures by providing them in the performance measures by providing them in the performance measures section of the budget document. The agency's budget document will also include an explanation of the common prioritization process. This will include an explanation of the gency. Complete the NRC review of operating plan format and content to improve the plans' effectiveness as management tools. This project will be carried out in two phases to address: 1) improvements that can be implemented in the short-term; and 2) improvement efforts were completed in December 2004 through the development of a performance reporting framework containing common reporting criteria and format. This framework was implemented during the first quarter of FY 2005. The longer-term efforts to improve the efficiency of operating plans are currently being addressed by an agency-wide working group.</li> </ul>	Completed	2Q FY 2006	Submission of the FY 2007 Performance Budget shows completion of these actions in February 2006. Page 86 of the Performance Measurement chapter provides a brief explanation of the prioritization process. The NRC has completed and tested an agency wide executive level operating plan that has a common format and is located on a shared drive for efficiency. The new agency-wide plan is being implemented in FY 2008. Office operating plans include the agency-wide information and additional detailed information which allows easy integration of the common information. Both operating plans are aligned with the strategic plan goals and metrics and reflect the approved budgeted resources and planned activities to achieve those goals

# Research

The agency conducts important research activities to ensure the safety of stored nuclear waste and its transportation. The research program is designed to improve the agency's knowledge where uncertainty exists, where safety margins are not well characterized, and where regulatory decisions need to be confirmed in existing or new designs and technologies. The agency measures the output of its research activities using two measures. The first measures the timeliness of its critical research programs. The agency's target in FY 2009 is to accomplish 90 percent of the major research project milestones. The second is to improve the quality of its research products. The target in FY 2009 is to achieve a score of 3.5 on a scale of 1 to 5 for research products.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
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.	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.
Actual:	90% across programs.	81% across programs.*	96% across programs.	100% across programs.		

Critical research programs regarding the highest priority needs identified at the beginning of each fiscal year. \*The target was not met as a result of unanticipated requirements within critical research programs and emergent work of equal priority.

Output meas	but measure: Acceptable technical quality of agency research technical products						
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Target:	New mea	sure in FY 2007		Combined score $\geq 3.0$	Combined score ≥3.0	Combined score ≥3.5	
Actual:				4.0			

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

## FY 2007 Significant Accomplishments

In FY 2007, the NRC completed 57 transport container design reviews and 10 storage container and installation design reviews. The NRC also conducted 16 inspections of ISFSI and radioactive material package certificate holders in order to perform "dry run" loadings with licensee personnel and to ensure that casks are being fabricated according to approved safety requirements.

The NRC issued studies of two tunnel fires involving non-nuclear materials to analyze possible regulatory implications of such events for the transportation of spent nuclear fuel. The Baltimore tunnel fire scenario analysis (NUREG/CR-6886, Revision 1, Spent Fuel Transportation Package Response to the Baltimore Tunnel Fire Scenario issued November, 2006) investigated the freight train derailment and fire that occurred on July 18, 2001, in Baltimore, Maryland. The Caldecott Tunnel fire scenario analysis (NUREG/CR-6894, Revision 1, Spent Fuel Transportation Package Response to the Caldecott Tunnel Fire Scenario issued January 2007) investigated the tank truck and trailer accident and fire that occurred April 7, 1982, near Oakland, California. The staff concluded from both evaluations that regulatory requirements for the containment of radioactive material would have been met, and hence the public would be protected from similar events involving radioactive material shipments. Late in FY 2007, the NRC began a study of the McArthur-Maze elevated roadway/bridge material that was damaged in the May 2007 gasoline tanker truck accident, fire and resulting partial collapse of a portion of Interstate 580 in Oakland, California.

The NRC issued a draft supplement for the environmental assessment of the spent fuel storage facility under construction at the Diablo Canyon nuclear plant. The report follows a June 2006 ruling by the U.S. Court of Appeals for the Ninth Circuit that the NRC must consider the possibility of terrorist attacks in its environmental reviews of proposed new facilities. The supplemental environmental assessment concludes that the probability of a successful terrorist attack on any such facility is very low.

						F	Y 2009	
	FY 2	2007		2008 acted	Re	quest		ge from 2008
Program	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	<b>\$M</b>	FTE
Budget Authority by Program								
Program Support <sup>1</sup>	\$38.8	108	\$18.7	88	\$26.9	83	\$8.1	-5
Infrastructure and Support	7.0	24	10.3	17	10.4	14	.2	-3
Total <sup>2</sup>	\$45.8	132	\$29.0	105	\$37.3	98	\$8.3	-7

## HIGH-LEVEL WASTE REPOSITORY

<sup>1</sup> Prior year Nuclear Waste Fund appropriations includes a total of \$25.5 that will be available in FY 2008 and FY 2009. <sup>2</sup> Numbers may not add due to rounding.

*Change from FY 2008:* The agency requests \$37.3 million, including 98 FTE, for high-level waste activities in FY 2009. This represents an increase of \$8.3 million, including a decrease of 7 FTE from FY 2008. The agency expects to receive a high-level waste license application during FY 2008.

**High-Level Waste Repository Activities:** These activities support achievement of the NRC's strategic goal on Safety.

The requested resources will support the NRC's statutory responsibilities regarding the potential DOE application for a High-Level Waste (HLW) repository. The FY 2009 budget request assumes the receipt of a DOE license application in June 2008. In October 2007, DOE certified its document collection for the licensing support network, signaling that a license application could be received as early as April 2008. With the receipt of a license application, pre-license application activities will terminate. The agency will then determine whether to adopt the DOE final environmental impact statement (FEIS) and docket the application. The target goal of 90 days for this determination is based upon receipt of a high quality application. If the application is docketed, a license application review will be conducted and formal hearings will be held on the safety and environmental impact of the proposed high-level waste repository.

The requested resources will also support adjudicatory activities associated with the licensing preceding. This includes responding to licensing support network disputes, adjudicating the admissibility of an estimated 1,000 contentions, prehearing conferences, discovery activities, and a possible hearing on environmental issues. It also provides for continued operation of the Licensing Support Network and the Digital Data Management system supporting the adjudicatory process.

Resources also support the review of storage cask system design and transportation package applications to be used as part of the DOEs Transportation Aging (storage) and Disposal (TAD) standardized canister-based, spent fuel management program, as well as, the analysis of international spent fuel transportation package testing conducted by Germany and Japan.

The agency measures the output of its high-level waste activities through several measures. The first is not applicable for FY 2009 but is included in this request to show changes in the agency's output measures.

0	5		and determine whether specified number of da	1 1	itory license applicati	on meets NRC's
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	Meet milestones within 90 days of due date.	Measure ends. Replaced with a new HLW measure.	N/A			
Actual:	Met target.	Met target.	Met target.	Met target.		

The second output measure begins in FY 2008. It measures whether the high-level waste application's major milestones are completed on time. The first target is for the agency to decide whether to docket the application and adopt the DOE FEIS within 90 days of receipt of the application. If the application is delayed by not more than two months, this action may occur in early FY2009 but no later than the end of the first quarter. The second target is to issue the first prehearing conference order identifying participants in the proceeding, admitted contentions, and setting discovery and other schedules 100 days after a Federal Register notice of hearing on the license application.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New measu	re in FY 2009		Decide whether to docket license application and adopt DOE final environmental impact statement no more than 90 days from receipt of application	The first pre-hearing conference order identifying participants in the proceeding, admitted contentions, and setting discovery and other schedules is issued 100 days after a federal register notice of hearing on the license application.
Actual:						

The third measure measures the efficiency of the application review. The target for FY 2009 is that Major Tasks in the High-Level Waste Licensing Review Program Project Plan will take five percent less combined contractor and NRC staff FTE to complete than is projected in the plan. The Licensing Review Program Plan actively manages activities affecting review of the license application and ensures that sufficient planning and controls are in place to receive and review the license application efficiently.

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:		New measur	re in FY 2009		Major Tasks in the High- Level Waste Licensing Review Program Project Plan will take 5 percent less combined contractor and NRC staff FTE to complete than is projected in the plan.*
Actual:					

### Enforcement

Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations. Violations are identified through inspections and investigations. All significant violations are considered for civil enforcement action and the most serious violations may also be considered for criminal prosecution. The agency measures the output of its enforcement activities by measuring the timeliness in completing reviews of technical allegations. Technical allegations are declarations, statements, or assertions of impropriety or inadequacy associated with regulated activities, the validity of which has not been established. This term includes all concerns identified by sources such as the media, individuals, or organizations. The target for FY 2009 is that 90 percent of technical allegations are closed within 150 days, 95 percent within 180 days, and all are closed within 360 days.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure in FY 2005.	70% ≤ 150 days 90% ≤ 180 days 100% ≤ 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% ≤ 150 days 95% ≤ 180 days 100% ≤ 360 days
Actual:	N/A	N/A*	N/A*	N/A*		

*Program Assessment Rating Tool (PART):* This program was reviewed as part of the High-Level Waste Repository PART analysis completed 2007. This program was rated as effective. The program earned high scores for program purpose and design and for program management. Findings from the PART analysis included that the purpose was clear and the program used regular, independent assessments to help the program become more results-focused in satisfying the NRC's Nuclear Waste Policy Act responsibilities and pre-licensing functions. In addition, the program has made significant progress towards meeting the goal of establishing a regulatory system to ensure that

the repository achieves long-term safety and security goals. The next PART review of this program is currently scheduled to take place in FY 2012.

OMB identified the following improvement plan actions in the following table:

Follow-up Action	Status	Expected Completion Date	Comments
Developing additional efficiency measures, including the updating of baseline data, to provide a means to systematically measure and monitor efficiencies through tracking labor effort in support of major milestones and establishing targets that demonstrate improved efficiency or cost effectiveness over the previous year.	Action taken, but not completed.	Ongoing	New output measures for FY 2009 have been developed.
Developing better linkage of budget requests to the program's success in accomplishing annual and agency long term goals. In reviewing the budget, the program tracks many measures, but there needs to be a clear connection of how funding impacts goal achievement.	Action taken, but not completed.	June 30, 2008	This action will be addressed through implementation of the new Executive Order on Improving Government Performance. The NRC CFO has been designated as the agency's Performance Improvement Officer.

## FY 2007 Significant Accomplishments

In FY 2007, the NRC assessed technical and regulatory issues relevant to the proposed HLW repository at Yucca Mountain. The NRC conducted public technical exchanges and interactions; reviewed and evaluated technical and scientific changes to the DOE program; observed and commented on the DOE quality assurance program; issued enhanced license application review guidance; revised technical models; and supplemented, maintained, and operated the Licensing Support Network to allow document access to potential parties to the hearing and the public. The NRC also conducted public outreach activities and meetings to make the regulatory process accessible to interested stakeholders.

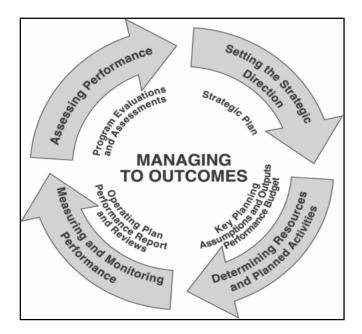
The NRC continued to interact with the DOE on its spent fuel management program, which will use standardized TAD canisters. The DOE issued final performance specifications for the disposal container in June 2007, and these specifications will inform the designs for transport package and storage cask systems.

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#### **Performance Measurement**

The U.S. Nuclear Regulatory Commission's (NRC's) Strategic Plan for fiscal years 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 2009 Performance Budget uses the Strategic Plan structure to align resources and to show a clear linkage between programs and the agency's goals.

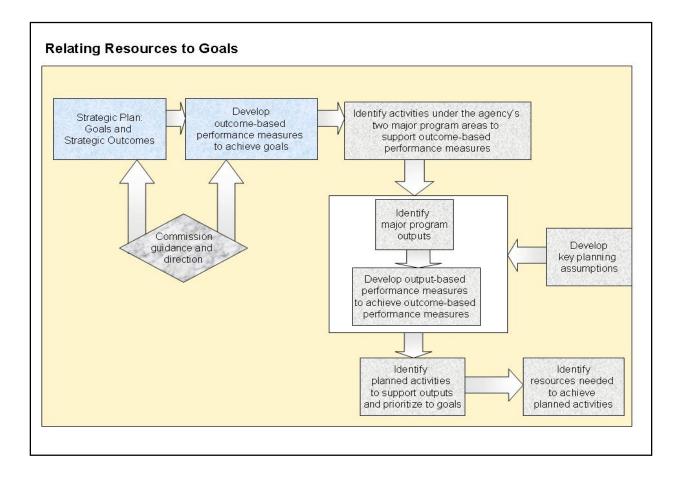
Measuring and monitoring performance is one of the four components of the NRC's Planning, Budgeting, and Performance Management (PBPM) process. The other components are: Setting the Strategic Direction, Determining Planned Activities and Resources, Measuring and Monitoring Performance, and Assessing Performance (See figure below).



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.

#### **Relating Goals to Resources**

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. The figure below illustrates the relationship between goals and resources to effectively accomplish performance budgeting within the agency.



The Commission provides guidance annually 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 NRCs outcome-based performance measures; and uses these as guides to 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 agency identifies the major program outputs and output-based measures 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 budgetary requests 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 fiscal years 2008-2013 determines the agency's long-term strategic direction. This FY 2009 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 Management section of the Performance Budget. Under the new plan, the former goals of Openness, Effectiveness, and Management are now considered to be Organizational Excellence Objectives because they support achievement of the two strategic goals of the agency. The measures related to these three former strategic goals remain in effect in FY 2007 and FY 2008, as required by the Government Performance and Results Act, because they have been published in the agency's FY 2007 and FY 2008 Performance Budget. These discontinued measures can be found in Appendix VII. This new structure better links programmatic and management performance and focuses progress toward key outcomes.

## FY 2008 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.

ALIGNMENT OF RESOURCES TO NRC GOALS (Dollars in Millions) (Excludes OIG)										
	F	2008 Enacted			FY 2009 Reque	st				
Major Programs	Safety	Security	Total	Safety	Security	Total				
Nuclear Reactor Safety	\$694.7	\$45.8	\$740.6	\$746.4	\$40.2	\$786.6				
Nuclear Materials and Waste Safety	150.5	26.3	176.8	188.9	32.5	221.3				
Total <sup>1</sup>	\$845.2	\$72.1	\$917.3	\$935.3	\$72.7	\$1,008.0				

<sup>1</sup>Numbers may not add due to rounding.

#### 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.

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
1. Number of new	v conditions evaluated as red b	by the NRC's reac	tor oversight proces	ss. <sup>1</sup>		-	
Target:	New measure in	<u>≤</u> 3	<u>≤</u> 3	<u>&lt;</u> 3	<u>≤</u> 3	<u>≤</u> 3	
	FY 2005 ure shown in the budget, the p measure was developed such						
Being a new meas This performance	ure shown in the budget, the p	previous years' ac that a single findi	tuals are provided: 1 ng (i.e., at a 3-unit s	FY 2001 - 1; FY 200 site) would not exceed			
Being a new meas This performance	ure shown in the budget, the p measure was developed such	previous years' ac that a single findi	tuals are provided: 1 ng (i.e., at a 3-unit s	FY 2001 - 1; FY 200 site) would not exceed			

	GC	DAL 1: SAFETY	-PERFORMANCI	E MEASURES		
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure in	<u>≤</u> 4	<u>&lt;</u> 4	<u>&lt;</u> 4	<u>&lt;</u> 3	<u>&lt;</u> 3
Actual:	FY 2005	0	0	1		
As this is a new measur	re shown in the budget,	the previous years	' actuals are provid	ed: FY 2001 - 1; FY	2002 - 3; FY 2003 -	2; FY 2004 – 1.
4. Number of significa	nt adverse trends in indu	ustry safety perfor	mance. <sup>4</sup>			
Target:	0	0	<u>≤</u> 1	<u>&lt;</u> 1	<u>&lt;</u> 1	<u>≤</u> 1
Actual:	0	0	0	0		
5. Number of events w	ith radiation exposures	to the public or oc	cupational workers	that exceed Abnorm	al Occurrence Criter	rion I.A.
Reactor Target:	0	0	0	0	0	0
Actual:	0	0	0	0		
Material Target:	<u>≤</u> 6	<u>&lt;</u> 6	≤6	<u>≤</u> 3	≤2	$\leq 2$
Actual:	05	1	0	0		
Waste Target:	0	0	0	0	0	0
Actual:	0	0	0	0		
6. Number of radiolog	cical releases to the envi	ronment that exce	ed applicable regul	atory limits. <sup>6</sup>		
Reactor Target: <sup>7</sup>	<u>≤</u> 3	<u>≤</u> 3	<u>&lt;</u> 3	<u>&lt;</u> 3	0	0
Actual:	0	0	0	0		
Material Target:	<u>≤</u> 5	<u>≤</u> 5	<u>&lt;</u> 5	≤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.

	G	OAL 2: SECURITY	Y-PERFORMAN	CE MEASURES				
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
1. Unrecovered losse	es of risk-significant <sup>8</sup> ra	dioactive sources.						
Target:	0	0	0	0	0	0		
Actual:	0	0	0	0				
	ntiated <sup>9</sup> cases of actual t ttacks that result in rad			ficant radioactive sou	rces or formula quar	ntities <sup>10</sup> of specia		
Target:	Ne	w Measure in FY 20	0	0	0			
Actual:	7			0				
	tiated <sup>9</sup> losses of formul nuclear material that are							
Target:	Ne	w Measure in FY 20	07	New Measure in FY 2007				
				0	0	0		
Actual:				0	0	0		
4. Number of substat	ntial breakdowns <sup>13</sup> of p ikened the protection ag			0				
4. Number of substat	kened the protection ag		n, or sabotage.	0				
<ol> <li>Number of substar that significantly wea Target:</li> </ol>	kened the protection ag	gainst theft, diversior	n, or sabotage.	0, access control, cont	ainment, or accounta	ability systems)		
<ol> <li>Number of substar that significantly wea Target: Actual:</li> </ol>	kened the protection ag	gainst theft, diversior w Measure in FY 20	n, or sabotage.	0, access control, cont $\leq 1$	ainment, or accounta	ability systems)		
<ol> <li>Number of substar that significantly wea Target: Actual:</li> </ol>	kened the protection as	gainst theft, diversior w Measure in FY 20	n, or sabotage.	0, access control, cont $\leq 1$	ainment, or accounta	ability systems)		

The American people expect excellence and accountability from their Government. To that end, the U.S. Congress passed the Inspector General (IG) Act in 1978 to ensure integrity and efficiency in the Federal Government and its programs. In accordance with the 1988 amendment of the act, U.S. Nuclear Regulatory Commission's (NRC's) Office of the Inspector General (OIG) was established as a statutory entity on April 15, 1989.

OIG's mission is to (1) independently and objectively conduct and supervise audits and investigations related to NRC programs and operations, (2) prevent and detect fraud, waste, and abuse, and (3) promote economy, efficiency, and effectiveness in NRC programs and operations. 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, makes recommendations to the agency for corrective actions, and monitors the NRC's progress in carrying out such actions.

The OIG Strategic Plan identifies the strategic challenges facing the NRC. The OIG strategic plan is generally aligned with the agency's goals and focuses on agency programs and operations that involve the major challenges and risk areas for the NRC. OIG's Strategic Plan features three goals which guide the activities of its audit and investigative programs:

### OIG Strategic Goals

- Advance NRC's efforts to enhance safety and protect the environment.
- Enhance NRC's efforts to increase security in response to the current threat environment.
- Improve the economy, efficiency, and effectiveness of NRC corporate management.

OIG's fiscal year (FY) 2009 budget and performance plan supports the implementation of the OIG's strategic plan and the associated goals and strategies.

					FY 2009			
	FY 2	007		2008	D			ge from
~				icted	Requ			2008
Summary	\$M	FTE	<b>\$M</b>	FTE	<b>\$M</b>	FTE	<b>\$M</b>	FTE
<b>Budget Authority by Program</b>								
Program Support	\$1.305	49	\$1.075	51	\$1.194	51	\$ .119	0
Program Salaries & Benefits	7.055		7.669		7.850		.181	
	\$8.360	49	\$8.744	51	\$9.044	51	\$.300	0

### **BUDGET OVERVIEW**

<sup>1</sup>Numbers may not add due to rounding.

OIG is requesting a FY 2009 budget of \$9.044 million including 51 full-time equivalents (FTE). This request reflects a \$300,000 increase over the FY 2008 enacted level. The submission includes a salaries and benefits increase of \$181,000, which represents increased personnel costs in salaries and benefits due to the Federal pay raise and other increases in base pay and benefits necessary to sustain existing staff. In addition, the submission also reflects an increase in contract support and travel funds of \$119,000. This increase includes funding to acquire essential contract services to conduct statutorily mandated audits.

The requested resources will enable OIG to accomplish its strategic goals, thereby assisting NRC in protecting public health and safety and the Nation's common defense and security, by ensuring integrity, efficiency, and accountability in agency programs that regulate the civilian use of byproduct, source, and special nuclear materials.

Further, in accordance with Office of Management and Budget (OMB) requirements, OIG is showing the full cost associated with its programs for the FY 2009 budget with the following caveat. As a result of an October 1989 memorandum of understanding between NRC's Chief Financial Officer and the Inspector General and a subsequent amendment in March 1991, OIG no longer requests that funding for some OIG management and support services be included in the OIG appropriation. It was agreed that funds for OIG infrastructure requirements and other agency support services would instead be included in NRC's main appropriation. For the most part, these costs are not readily severable. Thus, this funding continues to be included in NRC's main appropriation.

### Selected FY 2007 Accomplishments

The following sections discuss examples of the work performed in FY 2007 by the OIG audit and investigative programs.

### Audits

In FY 2007, OIG issued 20 audit reports pertaining to NRC programs and operations. These 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 the Nuclear Power Plant License Renewal Program:* NRC regulations limit the term of an initial nuclear reactor operating license to 40 years; however, the regulations also allow a license to be renewed for an additional 20 years.

The objective of this audit was to determine the effectiveness of NRC's license renewal safety reviews.

### AUDIT RESULTS:

Overall, NRC has developed a comprehensive license renewal process to evaluate applications for extended periods of operation. However, OIG identified the following areas where improvements would enhance program operations:

- license renewal reporting efforts,
- removing licensee documents from audit sites,
- evaluating licensee operating experience,
- planning for post-renewal inspections, and
- evaluating license renewal issues for backfit application.

Addressing these issues would improve NRC's ability to support its license renewal application decision making process and improve transparency of its reviews to the public and licensees, thereby increasing public confidence.

Summary Report and Perspectives on Byproduct Material Security and Control: The events of September 11, 2001, made it clear that terrorists have the patience and ability to plan and conduct devastating attacks in the U.S. After September 11, NRC acted immediately to begin addressing physical security in the byproduct material program. This included conducting security assessments for a sample of various types of material licensees. NRC also has some ongoing efforts that are intended to improve material security.

The objective of this report was to discuss whether NRC has adequately adapted its approach to byproduct material security in the post-September 11 era in accordance with the expectations of congressional and executive policymakers and the American people.

### AUDIT RESULTS:

While NRC has implemented or planned a variety of measures to regulate and provide for the security of byproduct material in the post-September 11 era, the agency, in its approach to byproduct material security, has not adequately identified and evaluated byproduct material security risks. Specifically, NRC has not conducted an impartial and comprehensive review of its own business and regulatory processes. Such an assessment should include examination of the management, operational and technical security controls and the extent to which these controls are (1) implemented correctly, (2) operating as intended, and (3) producing the desired outcome with respect to mitigating security vulnerabilities. Without such an assessment the agency is not aware of weaknesses and vulnerabilities in its byproduct material security program. Furthermore, NRC's approach has resulted in agency policies and practices that do not consider the full range of potential consequences of a radiological dispersal device ("dirty bomb").

*Audit of NRC's Badge Access System:* The NRC uses an automated badging and card reader system to control access within NRC's headquarters, regional offices, and the Technical Training Center (TTC). NRC refers to its system as the Access Control and Computer Enhanced Security System/Photo Identification Computer System (ACCESS).

The objective of this audit was to determine whether the current badge access system meets its required operational capabilities and provides for the security, availability, and integrity of the system data.

### AUDIT RESULTS:

NRC's badge access system is capable of providing effective support for NRC's physical security program. However, specific cost-effective actions are needed to enhance this legacy system's usage at NRC until a replacement system is implemented. OIG identified the following shortcomings with regard to ACCESS and related badge accountability processes:

- Weaknesses exist concerning system user access,
- The system contains inaccurate data,
- Badge accountability measures are inadequate,
- System documentation is incomplete or missing, and
- TTC lacks a backup power supply for ACCESS.

These problems exist because concerns about ACCESS are overshadowed by the agency's plan to replace the system as part of its Homeland Security Presidential Directive -12 (HSPD-12)

solution. Left unaddressed, these weaknesses undermine the effectiveness of NRC's physical security approach to control access into and within NRC facilities.

*Audit of Non-Capitalized Property:* NRC has an established property management program to account for and control non-capitalized property, i.e., property with an initial acquisition cost of at least \$500, but less than \$50,000. Non-capitalized property also includes sensitive items, such as firearms, with an acquisition cost of less than \$500.

The objective of this audit was to determine whether NRC has established and implemented an effective system of management controls for maintaining accountability and control of non-capitalized property.

## AUDIT RESULTS:

It is NRC's policy to manage and use property and supplies in its possession or its contractors' possession effectively and efficiently and to provide sufficient controls to deter or eliminate loss through fraud, waste, or misuse; however, the program, as implemented, needs improvement. NRC's property management program lacks adequate controls to assure that:

- Space and Property Management System records are accurate,
- Staff alert NRC's Office of Information Services when information technology (IT) equipment capable of storing personally identifiable information is missing,
- Employees and contractors exercise due care to physically secure rooms containing expensive equipment important to the continuity of NRC operations, and
- OIG Assistant Inspector General for Investigations is appropriately notified of missing property.

In light of NRC's imminent growth in FTEs and anticipated office relocations, it is increasingly important that NRC maintain effective and efficient accounting and control over non-capitalized property. Therefore, now is an opportune time for NRC management to increase accountability for, and improve control of, the property management program. An effective and efficient property management program is essential to assure that staff has the property needed to carry out their duties and assure optimum utilization of staff time, property, and fiscal resources.

## Investigations

In FY 2007, OIG completed 42 investigations and Event Inquiries. 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:

Security of Sensitive NRC Material Located at Former Local Public Document Room Libraries: OIG completed an investigation into concerns regarding the availability of sensitive NRC documents contained in microfiche files in public libraries across the nation. This issue was raised after a public interest group purchased from a community college a microfiche collection of NRC documents, which included sensitive documents. The community college had obtained the microfiche collection from a public library.

In April 1971, NRC implemented a Local Public Document Room (LPDR) program, which established document collections in libraries that were primarily located near commercial nuclear power plants. In July 1990, NRC replaced hard copy documents with a microfiche collection of all publicly available NRC documents issued since January 1981. Currently, the microfiche collection contains approximately 2 million records that were issued to the public by NRC from approximately January 1981 to October 1999.

In November 1999, NRC transitioned to a new electronic recordkeeping system, the Agencywide Documents Access and Management System (ADAMS). As a result of ADAMS, NRC stopped funding the LPDR program and informed LPDR libraries that the agency was relinquishing ownership of the microfiche collections. Libraries had the option of keeping their collections or returning them to the Government.

Following the events of September 11, 2001, NRC reviewed sensitive documents that were publicly available on the NRC Web site and on its public portion of ADAMS, the Publicly Available Records System (PARS). As a result, NRC removed from PARS approximately 1,200 documents generated after 1999 that were considered, from a post-September 11 perspective, to pose a security threat. At that time, NRC was also aware that the microfiche collection in the LPDRs contained a number of sensitive documents; however, a decision was made not to remove sensitive documents contained in the microfiche collections.

OIG found that the LPDR collections contain a number of documents that the NRC has, since September 11, 2001, re-classified as sensitive unclassified non-safeguards information (SUNSI) and removed from public access through ADAMS. However, the NRC staff has taken no action to remove these same documents from public access through the LPDR microfiche collections because, in their view, the documents have been widely available to the public and recent upgrades in nuclear power plant protective strategies make these aged documents of minimal value to an adversary. The staff's rationale for not controlling the documents in the LPDRs calls into question the legitimacy of continuing to classify these documents as sensitive.

OIG learned that NRC's inconsistent handling of documents considered sensitive has created concern among some public stakeholders. Specifically, while the NRC staff will not release documents deemed as sensitive to a private citizen, the staff has taken no action to restrict a citizen from obtaining the same documents from the former LPDRs. This inconsistency has created a perception that the NRC may be using the continued classification of a number of

documents as SUNSI merely to exclude the public from participation in NRC proceedings where these documents could be referenced.

Adequacy of NRC Handling of Security Vulnerabilities at Three Nuclear Power Plants: OIG conducted three investigations into NRC staff's handling of security vulnerabilities at three nuclear power plants. In each instance, the adequacy of actions conducted by NRC staff in reviewing and addressing security related issues was questioned by a public interest group.

The first investigation concerned an allegation from North Carolina Waste Awareness and Reduction Network that there were pervasive uncorrected compromises of security at the Shearon Harris Nuclear Power Plant (Shearon Harris). Also, it was alleged that NRC was negligent in performing its regulatory oversight responsibilities because, over the past 6 years, security concerns at Shearon Harris that were reported to NRC had not been acted upon.

Between 1999 and 2005, three concerns regarding deficiencies with security doors had been reported to NRC. OIG found that NRC staff appropriately addressed these concerns. Additionally, in December 2005, 19 new security concerns were reported to NRC. NRC staff conducted an inspection and substantiated seven of the concerns; however it was determined that the seven concerns did not represent a degradation of plant security. The staff was unable to validate nine of the concerns, and the remaining three concerns were investigated by the NRC Office of Investigations.

The second investigation concerned allegations from the Project on Government Oversight (POGO) that it had seen a pattern of NRC regions being aware of security concerns at nuclear power plants but not informing NRC headquarters. As an example, POGO cited an incident wherein Region II was warned about a vehicle portal vulnerability at Sequoyah Nuclear Power Plant (Sequoyah) in March 2006. However, in June 2006, a crate containing 30 assault rifles, ordered by the facility, was delivered to the protected area and left unattended for 2 days. POGO alleged that Region II had taken no action in March 2006, which resulted in the June 2006 incident.

OIG learned that NRC staff reviewed and addressed the March 2006 concern through NRC's allegation process and that the March 2006 incident was not directly related to the June 2006 incident. OIG determined that in July 2006, an NRC baseline security inspection team learned of the June incident and immediately informed Region II and NRC headquarters. In August 2006, NRC conducted a special inspection to address the latest incident.

The third investigation was prompted by concerns from the Union of Concerned Scientists (UCS) that NRC staff had failed to adequately review issues raised by contractor guards at the South Texas Project Nuclear Power Plant (STP).

OIG learned that between December 2005 and March 2006 NRC Region IV had opened three separate files to address the numerous concerns reported by the guards. Many of the concerns

were referred by Region IV to the licensee, and the Region evaluated the licensee's responses and corrective actions. Concerns related to potential licensee wrongdoing were referred to the NRC Office of Investigations, which conducted three investigations into these matters. OIG also learned that NRC staff conducted an additional review after receiving concerns from the STP contractor guards that were forwarded by UCS and a member of Congress in September 2006.

OIG learned that policies which severely restricted the public release of security-related information precluded effective communication between NRC and the guards regarding the resolution of their concerns. In February 2007, NRC staff recommended that the Commission allow more information to be provided in response to allegers' concerns.

*Improper Release of Personally Identifiable Information:* OIG completed an investigation into an improper release of Personally Identifiable Information (PII). PII is information that can be used to distinguish an individual's identity, such as their name in combination with their Social Security Number, date and place of birth, medical and employment history, and criminal record.

NRC licensees and contractors are required to undergo a criminal history check before they are permitted unescorted access to a nuclear power facility or access to safeguards information. NRC processes licensee requests through its Criminal History Program, which requires licensees to send fingerprints of employees or contractors via facsimile or a secure Web site. In turn, NRC may use the secure Web site or facsimile to transmit the results of the criminal history checks.

On August 28, 2006, an NRC staff member inadvertently sent 13 criminal history reports by facsimile to a private citizen in Richmond, Virginia. Six reports were supposed to be sent to a NRC nuclear power plant licensee in Virginia and seven reports to another nuclear power plant licensee in Texas.

Since 2003, Government agencies have been required to report any improper release of PII to the U.S. Computer Emergency Readiness Team (US-CERT), a component of the Department of Homeland Security. On October 18, 2006, NRC notified US-CERT of the PII release. Subsequently, NRC sent the appropriate non-disclosure and notification letters to the affected individuals.

OIG found that in addition to the August 28, 2006 inadvertent release, over the past 3 years NRC has occasionally sent criminal history reports to unintended recipients. OIG also found that other than the release on August 28, 2006, NRC did not send non-disclosure or notification letters to the affected individuals even though NRC staff were aware that criminal history reports had been released to people who had no need to know the information. Additionally, with the exception of the August incident, NRC did not contact US-CERT to report improper releases of PII contained in criminal history reports.

In addition, OIG found that when transmitting criminal history reports by facsimile to licensees, NRC staff did not typically contact the intended recipient to inform them that criminal history

reports would be sent or to follow up with the intended licensee to verify receipt of the facsimile. The lack of advance notice resulted in licensees not realizing that they had not received a facsimile intended for them, and the lack of follow up resulted in the NRC staff not being aware that results of a criminal history check had been missent by facsimile.

						FY 2009				
_	FY 2	007	FY 2008 Enacted		Request		Change from FY 2008			
Programs	\$M	FTE	\$M	FTE	\$M	FTE	\$M	FTE		
Audits	\$4.975	27	\$5.142	29	\$5.413	29	\$0.271	0		
Investigations	3.385	22	3.602	22	3.631	22	0.029	0		
Total	\$8.360	49	\$8.744	51	\$9.044	51	\$0.300	0		

#### BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY PROGRAM

<sup>1</sup>Numbers may not add due to rounding.

#### Justification of Program Requests

The work to be performed by OIG during FY 2009 will be carried out through OIG's two major programs, Audits and Investigations. In accordance with OMB requirements, OIG is providing the full cost of these programs for the FY 2009 budget. The FY 2009 budget identifies OIG's management and operational support costs and distributes these costs to the audit and investigative programs as a portion of the full cost of these programs.

The following section presents program resource tables and descriptions of the requested resources, the associated efforts within each program, as well as the goals and measures for each program. The costs for management and operational support are included at the end of this chapter.

#### AUDITS

						FY 2009			
	FY 2007		FY 2008 7 Enacted		Request			ge from 2008	
Program	<b>\$M</b>	FTE	<b>\$M</b>	FTE	\$M	FTE	<b>\$M</b>	FTE	
Budget Authority by Program									
Program Support	\$4.975	27	\$5.142	29	\$5.413	29	\$0.271	0	
Total <sup>1</sup>	\$4.975	27	\$5.142	29	\$5.413	29	\$0.271	0	

<sup>1</sup>Numbers may not add due to rounding.

For FY 2009, OIG requests \$5.413 million and 29 FTE to carry out its audit program activities. With these resources, OIG will conduct approximately 20 to 22 audits and evaluations that will focus on agency programs involving the major management challenges and risk areas facing the NRC. This funding will sustain the existing program to identify opportunities for improvement in the agency and to conduct activities to prevent and detect fraud, waste, mismanagement, and inefficiencies in NRC programs and operations.

To fulfill its audit mission, OIG conducts performance, financial, and contract audits. Performance audits focus on NRC administrative and program operations and evaluate effectiveness and efficiency with which managerial responsibilities are carried out and whether the programs achieve intended results. Financial audits attest to the reasonableness of NRC's financial statements and evaluate financial programs. Contract audits evaluate the cost of goods and services procured by NRC from commercial enterprises. In addition, the audit staff prepares special evaluation reports that present OIG perspectives or information on specific topics. Specific audits will be identified in the FY 2009 Annual Plan that will be published by September 30, 2008.

#### FY 2008–FY 2009 Audit Performance Goals

OIG audits planned for FY 2008–FY 2009 will link directly to the OIG Strategic Plan and its associated general 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; improve program activities at headquarters and regional offices; and respond to unplanned priority requests and emerging issues.

The requested resources for the audit program will support OIG efforts to focus on identifying risk areas and management challenges relating to the improvement of NRC's safety, security, and/or corporate management programs. To measure its success, the OIG audit program has established the following FY 2009 performance goals:

- Identify risk areas or management challenges relating to the improvement of NRC's safety programs for 80 percent of OIG audit products or activities undertaken involving these programs during the fiscal year.
- Identify risk areas or management challenges relating to the improvement of NRC's security programs for 80 percent of OIG audit products or activities undertaken involving these programs during the fiscal year.
- Identify risk areas or management challenges relating to NRC's corporate management programs for 80 percent of OIG audit products or activities undertaken involving these programs during the fiscal year.
- Have a high impact on improving NRC's safety, security, and/or corporate management programs for 70 percent of OIG audit products or activities completed during the fiscal year.
- Obtain agency agreement on at least 90 percent of OIG audit recommendations.

• Obtain final agency action on an aggregate of 65 percent of OIG audit recommendations within 1 year.

					FY 2009				
			FY	2008	Change f		ange from		
	FY 2	2007	Ena	cted	Request FY 200		2008		
Program	<b>\$M</b>	FTE	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	
Budget Authority by Program									
Program Support	\$3.385	22	\$3.602	22	\$3.631	22	\$.029	0	
<b>Total</b> <sup>1</sup>	\$3.385	22	\$3.602	22	\$3.631	22	\$.029	0	

# INVESTIGATIONS

<sup>1</sup>Numbers may not add due to rounding.

For FY 2009, OIG requests \$3.631million and 22 FTE to carry out its investigative program activities. With these resources, OIG will conduct 70–90 investigations and Event Inquiries covering a broad range of misconduct and mismanagement affecting various NRC programs. OIG will also continue its regional liaison activities to facilitate closer coordination between OIG and NRC's regional offices. OIG will also continue to conduct fraud awareness briefings and participate in projects or task forces that strengthen agency operations. In addition, OIG will continue working with the NRC staff to increase their awareness of the vulnerabilities associated with computer intrusion involving unauthorized access to the agency's operating systems.

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

#### FY 2008–FY 2009 Investigative Performance Goals

The OIG investigative program for FY 2008 – FY 2009 will include investigative activities related to the integrity of the 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. In addition, OIG routinely undertakes proactive investigations directed at particular areas of agency programs that have a high potential for fraud, waste, and abuse. On a priority basis, investigative program products and activities will be directed to address allegations in the safety, security, and corporate management mission-related areas articulated in the OIG Strategic Plan.

The requested resources for the investigative program will support OIG efforts to focus on identifying risk areas or management challenges relating to the improvement of NRC's safety, security, and/or corporate management programs. To measure its success, the OIG investigative program has established the following FY 2009 performance goals:

- Identify risk areas or management challenges relating to the improvement of NRC's safety programs for 85 percent of OIG investigations and activities undertaken involving these programs during the fiscal year.
- Identify risk areas or management challenges relating to the improvement of NRC's security programs for 90 percent of OIG investigations and activities undertaken involving these programs during the fiscal year.
- Identify risk areas or management challenges relating to the improvement of NRC's corporate management programs for 60 percent of OIG investigations and activities undertaken involving these programs during the fiscal year.
- Have a high impact on improving NRC's safety, security, and/or corporate management programs for 70 percent of OIG investigations or activities completed during the fiscal year.
- Obtain 90 percent agency action in response to OIG investigative reports provided to the agency.
- Obtain 70 percent acceptance by NRC's Office of the General Counsel of OIG-referred Program Fraud and Civil Remedies Act cases.

Following is a description of the linkage between OIG's Strategic Plan goals and its Performance Plan for FY 2008–FY 2009.

#### Linkage Between OIG's Strategic Plan Goals and OIG's Performance Plan for FY 2008 – FY 2009

The OIG Strategic Plan and associated performance goals present a results-based business case and return-on-investment. The plan serves to strengthen OIG by establishing a shared set of expectations for OIG's stakeholders regarding the goals it expects to achieve and the strategies and actions that it will use to do so. OIG will adjust the plan as circumstances necessitate, use it to develop its annual plan and budget submission, report on progress in OIG's semiannual reports, and hold OIG managers and staff accountable for achieving the goals and outcomes.

OIG's strategic plan includes three strategic goals and six general goals with a number of supporting strategies and actions that describe planned accomplishments over the strategic planning period. Through associated annual planning activities, audit and investigative resources will focus on assessing NRC's safety, security, and corporate management programs involving the major challenges and risk areas facing the NRC in the given budget year. The work of OIG auditors and investigators is mutually supportive and complementary in the pursuit of these objectives.

Following is a discussion of how the three strategic goals and six general goals of the OIG Strategic Plan link with the FY 2008–FY 2009 Performance Plan. This includes a tie-in between the level of activity by the OIG in its audit and investigation functions and the strategies and actions related to the strategic and general goals. It also includes the performance goals for FY 2008 and FY 2009.

#### **Goals and Strategies**

STRATEGIC GOAL 1: Advance NRC's Efforts to Enhance Safety and Protect the Environment. General Goals

- 1. 80% of OIG products and activities undertaken to accomplish Strategic Goal 1 will identify risk areas or management challenges related to enhancing safety.
- 2. 70% of OIG products and activities undertaken to accomplish Strategic Goal 1 will have a high impact on improving safety.

**Discussion:** NRC faces many safety challenges and an associated increasing workload concerning nuclear reactor oversight, the regulation of nuclear materials, and the handling of high-level waste.

A significant focus for NRC is ensuring the safe operation of the Nation's operating nuclear power plants through an established oversight process developed to ensure that licensees identify and resolve safety issues before they affect safe plant operation.

In addition, NRC needs to address an increasing number of license amendment requests to increase the power generating capacity of specific commercial reactors; license renewal requests to extend reactor operations beyond originally set expiration dates; the introduction of new technology, such as new and advanced reactor designs; and the construction of new nuclear power plants.

In fulfilling its responsibilities to regulate nuclear materials, NRC must ensure that its regulatory activities regarding nuclear fuel cycle facilities and nuclear materials adequately protect public health and safety. NRC is especially reliant on the effectiveness of the Agreement States program in meeting these responsibilities. Additionally, NRC's regulatory activities concerning nuclear materials must protect against radiological sabotage and theft or diversion of the materials. Licensing of new facilities (e.g., uranium enrichment and mixed oxide [MOX] fuel fabrication) pose additional challenges.

In the high-level waste area, NRC will face significant issues involving the licensing of the Yucca Mountain repository and the transportation of designated high-level waste from plants and facilities. Additional high-level waste issues include the interim storage of spent nuclear fuel both at and away from reactor sites, certification of storage and transport casks, and the oversight of the decommissioning of reactors and other nuclear sites. In response to these agency challenges, OIG is implementing the following strategies and actions over the 5-year strategic planning period:

#### Strategy 1-1: Identify risk areas associated with NRC efforts to implement the Reactor Oversight and Incident Response Program and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess the adequacy of NRC's implementation of licensing and other oversight activities with regard to the safe operation of existing nuclear reactors.
- b. Assess the extent to which NRC has integrated into the reactor oversight process its emergency preparedness and incident response obligations associated with a potential significant nuclear event or incident.
- c. Assess NRC's implementation of its risk-informed inspection process.
- d. Assess the impact that an increase in license renewal requests would have on the licensing process.
- e. Assess the effectiveness of the NRC regulatory process and related enforcement actions.
- f. Assess NRC's actions to address the potential risks associated with aging facilities and the introduction of new technology.
- g. Monitor NRC activities and gather stakeholder information to identify potential gaps in NRC regulatory oversight. Conduct, as appropriate, Event Inquiries when gaps are identified.

# Strategy 1-2: Identify risk areas facing the materials program and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess NRC's implementation of programs for controlling, accounting for, tracking, and inspecting nuclear materials.
- b. Assess the extent to which NRC has integrated into the materials program its emergency preparedness and incident response obligations associated with a potential significant nuclear event or incident.
- c. Assess NRC activities concerning the licensing and oversight of fuel cycle facilities, including MOX fuel fabrication and the potential oversight of DOE non-weapons laboratories.
- d. Assess NRC's handling of low-level waste issues, including security, disposal, and coordination with Agreement States.
- e. Assess impact of the Agreement States program on the safety and security of materials and on NRC funding and regulatory activities.
- f. Review NRC and licensee reports and engage interested stakeholders to identify issues of concern in NRC oversight of nuclear material held by NRC licensees.
- g. Assess NRC's oversight of nuclear waste issues associated with the decommissioning and cleanup of nuclear reactor sites and other facilities.

# Strategy 1-3: Identify risk areas associated with the prospective licensing of the high-level waste repository and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess NRC's regulatory activities involving the interim storage of high-level waste and spent fuel both at and away from reactor sites.
- b. Assess issues involving the review of a Yucca Mountain repository application, if received by NRC, and the transportation of designated high-level waste from plants and facilities.
- c. Assess the consequences of Yucca Mountain not being licensed or not being available as planned, including NRC's ability to respond to DOE and industry contingency plans.
- d. Closely monitor the Yucca Mountain license review process to ensure that there are no indications of process deviations and that the review is being conducted in a thorough and impartial manner.

 STRATEGIC GOAL 2: Enhance NRC's Efforts to Increase Security in Response to the Current Threat Environment.

 General Goals

 1
 85%
 of OIC products and pativities undertaken to accomplish Strategia Coal 2 will identify risk.

- 1. 85% of OIG products and activities undertaken to accomplish Strategic Goal 2 will identify risk areas or management challenges related to security.
- 2. 70% of OIG products and activities undertaken to accomplish Strategic Goal 2 will have a high impact on improving security.

**Discussion:** Terrorist attacks have resulted in a sharpened focus on the security and protection of operating nuclear power plants and nuclear materials. NRC, in concert with other agencies, must continuously assess the risks faced by licensed activities, review existing security measures, and identify vulnerabilities. Similarly, continuous risk and vulnerability assessments must be conducted on NRC office facilities. Given this increased security focus, it is anticipated that NRC will expend considerable effort in developing responsive security plans and enhanced security capabilities.

NRC also faces new challenges in supporting U.S. international interests in the safe and secure use of nuclear materials and in nuclear nonproliferation. These challenges include improving controls on the export of nuclear materials and equipment and NRC's successful exercising of its international commitments.

In response to these agency challenges, OIG is implementing the following strategies and actions over the 5-year strategic planning period:

# Strategy 2-1: Identify risk areas involved in effectively securing operating nuclear power plants and nuclear materials and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess the extent to which NRC has developed a comprehensive threat assessment with regard to nuclear power plants and nuclear materials and a process for keeping it up to date.
- b. Assess the adequacy of the process for developing existing regulations to respond to an evolving threat environment and the extent to which NRC is making appropriate regulatory adjustments.
- c. Assess NRC's coordination with other agencies.
- d. Assess NRC's acquisition of resources and expertise to meet its security responsibilities.
- e. Monitor the development of NRC requirements intended to enhance nuclear plant security.

# Strategy 2-2: Identify risks associated with nonproliferation and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess NRC's efforts to improve controls on the export of nuclear materials or equipment.
- b. Assess NRC's responsibilities linked to established statutes, international treaties, conventions, and agreements of cooperation.

# Strategy 2-3: Identify threats to NRC security and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess the extent to which NRC has developed a comprehensive threat assessment for its facilities and personnel and a process for keeping it up to date.
- b. Assess the extent to which NRC has implemented physical and information security controls and procedures.
- c. Assess the effectiveness of NRC approaches for balancing physical and information security and public openness.
- d. Assess NRC steps in ensuring continuity of its operations in the event that a significant incident occurs.
- e. Assess other issues involving NRC security, including regional vulnerabilities and temporary facilities needed for Yucca Mountain hearings.
- f. Through proactive initiatives and reactive investigations, assist the NRC's Office of Information Services and NRC systems administrators in the protection of NRC information technology infrastructure against internal and external computer intrusions.

STRATEGIC GOAL 3: Improve the Economy, Efficiency, and Effectiveness of NRC Corporate
Management.

#### General Goals

- 1. 65% of OIG products and activities undertaken to accomplish Strategic Goal 3 will identify critical risk areas or management challenges related to corporate management.
- 2. 70% of OIG products and activities undertaken to accomplish Strategic Goal 3 will have a high impact on corporate management.

**Discussion:** NRC faces significant challenges to manage its resources efficiently, effectively, and economically. In the OIG's assessment of the most serious management challenges facing the NRC, the office identified three specific challenges that have the potential for a perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals:

- Implementation of information resources,
- Administration of all aspects of financial management, and
- Managing human capital.

These management challenges dovetail with the President's Management Agenda, which NRC is striving to implement. The President's Management Agenda is an aggressive strategy for improving the management and performance of the Federal Government. It focuses on apparent deficiencies where the Government could make improvements and the most progress in the following areas:

- Strategic management of human capital,
- Competitive sourcing,
- Improved financial performance,
- Expanded electronic government, and
- Budget and performance integration.

In response to these agency challenges, OIG is implementing the following strategies and actions over the 5-year strategic planning period:

#### Strategy 3-1: Assess progress made in implementing the President's Management Agenda.

#### Actions:

- a. Assess NRC strategies for addressing loss of knowledge, skills, and abilities through retirement and turnover and the impact of a diminishing "academic pipeline."
- b. Assess NRC efforts to comply with OMB competitive sourcing requirements.
- c. Assess steps taken by NRC to improve its financial management practices, including the overall process and steps undertaken to implement cost accounting capabilities and integrate financial systems.
- d. Assess NRC efforts to embrace e-Government initiatives.

e. Assess NRC progress in integrating budget and performance.

# Strategy 3-2: Identify other areas of corporate management risk within NRC and make recommendations, as warranted, for addressing them.

#### Actions:

- a. Assess NRC property accountability and controls.
- b. Assess NRC facilities management operations.
- c. Assess NRC actions taken to address issues cited in the NRC safety culture and climate survey.
- d. Assess NRC IT issues, including the return-on-investment obtained from IT initiatives, integration of NRC technology and systems, and NRC procedures for IT life cycle management.
- e. Assess NRC acquisition and contracting controls and processes.
- f. Coordinate with NRC's Office of the Chief Financial Officer and the Office of Information Services to identify any instances of misuse of NRC equipment and resources, such as computers, and travel and procurement credit cards.
- g. Reduce instances of employee criminal and administrative misconduct through investigations and proactive initiatives.
- h. Use proactive initiatives, in support of improved financial performance, to identify and investigate any instances of fraudulent payments associated with NRC programs.

	Strategic Go	al 1: Advance NR	C Efforts to Enhan	ce Safety and	
	-	Protect the l	Environment	-	
	2005	2006	2007	2008	2009
	ercent of OIG pr			entify risk areas	or management
challenges <sup>16</sup> relat	ting to the improve	ment of NRC's safe	ty programs.		
Target	80%	80%	80%	80%	80%
Actual	100%	100%	100%		
Measure 2. Pe	rcent of OIG pro	ducts/activities tha	t have a high im	pact <sup>17</sup> on improvi	ng NRC's safety
program.	_		-		
Target	70%	70%	70%	70%	70%
Actual	100%	100%	100%		
Measure 3. Num	ber of audit recom	mendations agreed	to by agency.		
Target	90%	90%	90%	90%	90%
Actual	100%	81% <sup>18</sup>	100%		
Measure 4. Fina	l agency action with	hin 1 year on audit	recommendations.		
Target	50%	50%	50%	50%	50%
Actual	35% <sup>19</sup>	63%	36% <sup>20</sup>		
Measure 5. Age	ncy action in respor	se to investigative	reports.		
Target	90%	90%	90%	90%	90%
Actual	100%	100%	100%		

#### PERFORMANCE MEASURES

	Strategic Goal 2	Enhance NRC's	Efforts to Increas	se Security in Resp	onse
	0		Threat Environm	• •	
	2005	2006	2007	2008	2009
Measure 1. P	ercent of OIG prod	lucts/activities und	lertaken to identi	fy risk areas or ma	anagement challenge
relating to the	improvement of N	RC's security prog	rams.		
Target	85%	85%	85%	85%	85%
Actual	100%	100%	100%		
Measure 2. ] program.	Percent of OIG p	roducts/activities t	hat have a high	impact on impro	ving NRC's security
Target	70%	70%	70%	70%	70%
Actual	100%	100%	100%		
Measure 3. N	umber of audit reco	mmendations agro	eed to by agency.		
Target	90%	90%	90%	90%	90%
Actual	100%	100%	100%		
Measure 4. Fi	nal agency action w	vithin 1 year on au	dit recommendati	ons.	
Target	65%	65%	65%	65%	65%
Actual	$60\%^{21}$	$25\%^{22}$	61% <sup>23</sup>		
Measure 5. Ag	gency action in resp	onse to investigati	ve reports.	•	
Target	90%	90%	90%	90%	90%
Actual	100%	100%	100%		

		•	ove the Economy, Ef	• /	
			RC Corporate Mana	0	
	2005	2006	2007	2008	2009
	-			•	anagement challenges
relating to the	e improvement of I	NRC's corporate m	anagement program	n	
Target	65%	65%	65%	65%	65%
Actual	100%	99%	100%		
Measure 2.	Percent of OIG p	oroducts/activities	that have a high in	mpact on improvi	ing NRC's corporate
management	program.		0		<b>.</b>
Target	70%	70%	70%	70%	70%
Actual	85.7%	96%	100%		
Measure 3. N	lumber of audit re	commendations ag	reed to by agency.		·
Target	90%	90%	90%	90%	90%
Actual	100%	100%	100%		
Measure 4. F	inal agency action	within 1 year on a	udit recommendatio	ons.	
Target	65%	65%	65%	65%	65%
Actual	85%	$60\%^{24}$	85%		
Measure 5. A	gency action in re	sponse to investigat	tive reports.		
Target	90%	90%	90%	90%	90%
Actual	100%	100%	100%		
Measure 6. A	Acceptance by NR	C's Office of the G	eneral Counsel of C	<b>DIG-referred Prog</b>	gram Fraud and Civil
<b>Remedies</b> Act	t cases.				-
Target	70%	70%	70%	70%	70%
Actual	100%	100%	No Referrals		

# Verification and Validation of Measured Values and Performance

OIG uses an automated management information system (MIS) to capture program performance data for audits and investigations. 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 program statistics were fully integrated into the new system and was used to compile its statistical performance data. All system data are deemed reliable.

#### **Crosscutting Functions With Other Government Agencies**

The NRC's OIG has a crosscutting function relating to its investigatory case referrals to the Department of Justice and other State and local law enforcement entities.

#### FY 2009 Office of the Inspector General Budget Resources Linked to Strategic and General Goals

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

Program Links to	OIG Strategic and General Goals								
Strategic and General Goals (\$K)	Advance NRC's Safety Efforts (\$K)	Enhance NRC's Security Efforts (\$K)	Improve NRC's Corporate Management (\$K)						
FY 2009 Programs (\$9,0	FY 2009 Programs (\$9,044; 51 FTE)								
Audits	\$1,652	\$1,133	\$2,628						
(5,413; 29 FTE)	10.0 FTE	6.5 FTE	12.5 FTE						
Investigations	\$1,429	\$589	\$1,613						
(3,631; 22 FTE)	9.0 FTE	3.0 FTE	10 FTE						

Following is a discussion of the OIG Management and Operational Support activities.

#### Management and Operational Support

The Inspector General's Management and Operational Support staff consists of senior executive managers, the general counsel, and an administrative support staff. OIG's senior executive managers will provide the continued vision, strategic direction, and guidance regarding the conduct and supervision of audits and investigations. Senior management will also ensure accountability regarding OIG's established goals and strategies and achievement of intended results. Further, senior management will ensure a diverse workforce with the proper focus on the President's Management Agenda.

In furtherance of OIG's mission to promote economy and efficiency, and to prevent fraud, waste, and abuse in agency programs and operations, OIG's general counsel, in coordination with

cognizant OIG staff, will conduct analyses of existing and proposed legislation, regulations, directives, and policy issues. These objective analyses will result in timely written commentaries to the agency that prospectively identify and prevent potential problems.

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

To carry out the functions of this program in FY 2009, OIG estimates that its costs will be \$1,265,000, which includes salaries and benefits for eight FTE. The tables below provide a breakdown of the FY 2009 budget estimates for Management and Operational Support by program and a cost comparison by function.

#### ALLOCATION OF SUPPORT COSTS TO OIG PROGRAMS

Management and Operational Support	FY 2009	FY 2009	FY 2009
Allocation by Program		Salaries and	Contract and
( <b>\$K</b> )	FTE	Benefits	Support
Audits	4	\$ 615	\$20
Investigations	4	615	15
<b>Total</b> <sup>1</sup>	8	\$1,230	\$35

<sup>1</sup>Numbers may not add due to rounding.

#### COMPARATIVE COSTS OF MANAGEMENT AND OPERATIONAL SUPPORT

Summary	FY 2007	FY 2008 Enacted	FY 2009 Request <sup>25</sup>
Budget Authority by Function (\$K)			
Salaries and Benefits	\$1,117	\$1,208	\$1,230
Contract Support and Travel	168	117	35
Total <sup>1</sup> Budget Authority	\$1,285	\$1,325	\$1,265
FTE	8	8	8

<sup>1</sup> Numbers may not add due to rounding.

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# APPENDIX I: BUDGET AUTHORITY BY FUNCTION

		FY 2008	FY 2009			
NRC Appropriation	FY 2007	Enacted	Request	Change from FY 2008		
Salaries and Expenses (S&E)						
Salaries and Benefits	\$465.7	\$512.9	\$559.6	\$46.7		
Contract Support	331.1	382.1	421.2	39.1		
Travel	19.7	22.3	27.2	4.9		
Total (S&E)	\$816.5	\$917.3	\$1,008.0	\$90.7		
Office of the Inspector General (OIG Salaries and Benefits	) \$7.0	\$7.7	\$7.9	\$0.2		
Contract Support	1.1	0.8	0.9	0.1		
Travel	0.3	0.3	0.3	0.0		
Total (OIG)	\$8.4	\$8.7	\$9.0	\$0.3		
Total NRC Appropriation						
Salaries and Benefits	\$472.7	\$520.5	\$567.4	\$46.9		
Contract Support	332.2	382.9	422.1	39.2		
Travel	20.0	22.6	27.5	4.9		
Total <sup>1</sup> (NRC)	\$824.9	\$926.0	\$1,017.0	\$91.0		

#### BUDGET AUTHORITY BY FUNCTION (Dollars in Millions)

<sup>1</sup>Numbers may not add due to rounding.

# APPENDIX I: BUDGET AUTHORITY BY FUNCTION

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#### **APPENDIX II: HOMELAND SECURITY**

					FY 2009				
	FY 2007		FY 2008 Enacted		Request		Change from FY 2008		
	\$M	FTE	\$M	FTE	<b>\$M</b>	FTE	\$M	FTE	
New Reactors	\$ 0	4	\$4.7	3	\$3.5	3	-\$1.2	0	
Reactor Licensing Tasks	3.7	61	2.7	42	2.4	41	3	-1	
International Activities			2.2	0	0	0	-2.2	0	
Reactor Oversight	3.2	68	2.6	68	2.4	71	2	3	
Fuel Facilities	2.6	30	2.3	27	3.4	30	1.1	3	
Nuclear Materials Users	4.6	42	5.2	26	8.5	33	3.3	7	
Spent Fuel Storage & Transp.	0.4	15	0.3	9	0.3	10	0	1	
Administration	0	0	2.6	0	1.0	1	-1.6	1	
Subtotal	\$14.5	220	\$22.6	175	\$21.5	189	-\$1.1	14	
Salaries & Benefits	30.2		24.6		28.0		3.4		
Sub Program Total	\$44.7	220	\$47.2	175	\$49.5	189	\$2.3	14	
Infrastructure Support	26.9		24.9		23.2		-1.7		
Total <sup>2</sup>	\$71.6	220	\$72.1	175	\$72.7	189	\$0.6	14	

#### HOMELAND SECURITY (Dollars in Millions)<sup>1</sup>

<sup>1</sup> All funding levels provided in this table are full cost; they include both programmatic and infrastructure support costs. <sup>2</sup> Numbers may not add due to rounding.

APPENDIX II: HOMELAND SECURITY

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#### EXPLANATION OF THE FULL COST BUDGET ALLOCATION

The fiscal year (FY) 2009 Performance Budget identifies the infrastructure and support costs for the U.S. Nuclear Regulatory Commission (NRC) and distributes them to programs as a portion of the total program cost. The allocation methodology is consistent with the methodology used for preparing the agency's financial statements.

The 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<sup>1</sup> 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, 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 20	007	FY 2	008	FY 20	009
Program	\$M	FTE	<b>\$M</b>	FTE	\$M	FTE
Nuclear Reactor Safety						
New Reactors	\$30.8	93	\$55.5	132	\$62.5	144
Licensing Tasks	59.0	148	63.0	150	63.0	145
License Renewal	7.9	21	8.2	20	9.5	22
International Activities	2.7	7	3.1	7	3.0	7
Reactor Oversight	95.4	241	99.8	238	106.8	247
Incident Response	5.6	12	6.7	16	7.6	18
Subtotal Nuclear Reactor Safety	\$201.4	522	\$236.3	564	\$252.5	583
Nuclear Materials and Waste Safety						
Fuel Facilities	\$11.9	29	\$12.7	30	\$17.3	40
Nuclear Materials Users	14.4	36	12.3	29	15.8	36
Decommissioning and Low-Level Waste	9.0	23	9.3	22	11.6	27
Spent Fuel Storage and Transportation	8.5	20	9.3	22	9.3	21
High-Level Waste Repository	7.0	24	10.3	17	10.4	14
Subtotal Nuclear Materials and Waste Safety	\$50.8	132	\$53.9	121	\$64.3	139
Total Infrastructure and Support Allocation <sup>2</sup>	\$252.2	654	\$290.2	685	\$316.8	721

INFRASTRUCTURE AND SUPPORT ALLOCATION BY PROGRAM

<sup>&</sup>lt;sup>1</sup> In all cases throughout this section, references to space or facilities acquisitions include only those appropriately approved as of the date of this document.

<sup>&</sup>lt;sup>2</sup> Numbers may not add due to rounding.

					FY	2009		
	FY 2007		FY 2 Ena		Request		Change from FY 2008	
Programs	\$M FTE		\$M	FTE	\$M	FTE	\$M	FTE
Administration, Rent, and Human Resources	\$101.4	201	\$127.9	213	\$131.3	228	\$3.4	15
Information Technology and Information	86.2	192	91.3	195	110.9	213	19.6	18
Management								
Financial Management	23.7	111	28.0	117	31.0	118	2.9	1
Policy Support	23.9	148	26.3	158	27.4	160	1.1	2
Permanent Change of Station	17.0	2	16.7	2	16.3	2	(0.5)	0
<b>Total</b> <sup>1</sup>	\$252.2	654	\$290.2	685	\$316.8	721	\$26.6	36

#### BUDGET AUTHORITY AND FULL-TIME EQUIVALENTS BY FUNCTION

<sup>1</sup>Numbers may not add due to rounding.

#### Justification of Costs by Function

Infrastructure and support comprise five functions: administration, rent, approved space acquisition, and human resources; information technology and information management; financial management; policy support; and permanent change of station. The following sections highlight significant changes from FY 2008 resources levels and discuss major activities in FY 2009 for each of these functions.

Administration, Rent, and Human Resources: Resources increase for the government-wide FY 2009 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 \$18.4 million of FY 2009 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 approved new facilities; office and systems furniture; and X-ray machines, metal detectors and card readers. Specifically, the budget provides resources for the following:

- headquarters full-time equivalent (FTE) staff, buildout and rent for approved additional space, systems and office furniture, transit subsidies, supplies, security equipment, security investigations, and guard services for the approved additional 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 (HSPD-12), "Policy for a Common Identification Standard for Federal Employees and Contracts," dated August 27, 2004;
- strategic workforce planning, increased recruitment activity, and internal training and professional development programs; 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 (OCCP) 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;

*Output Measures:* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide historical performance data on the measures from FY 2004 (where available). In addition, following these tables are the most significant accomplishments in FY 2007.

Output Measure: OMB Directed 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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Target:	New measure in FY 2005	Not less than 40%	Not less than 40%	Not less than 40%	Not less than 65%	Not less than 65%	
Actual:		72%	67%	67%			

Output Measure: OMB Directed Acquisition Reform Initiative Measure. Percent of required synopses for acquisitions that are posted on the government-wide point-of-entry website (<u>www.FedBizOpps.gov</u>) 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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target :	100% of all required synopses.	100% of all required synopses.				
Actua 1:	100%	100%	98%	100%		

Output Measure: Percentage of professional hires retained for a minimum of 3 years after initial NRC employment.							
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Target:	New measure in	75%	75%	85%	85%	85%	
Actual:	FY 2005	90%	93%	82%			

Output Measure:OMB Directed Acquisition Reform Initiative Measure.Competitive Sourcing FY 2004.Number of business case<br/>analyses performed on commercial activities listed on the approved FAIR Act inventory and conducted in accordance with Agency<br/>competitive sourcing plan. (Measure Revised in FY 2004.)FY 2004FY 2005FY 2006FY 2007FY 2008FY 2009

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Target:	New measure in FY 2004.	3 business case analyses.	3 business case analyses.	3 business case analyses.	3 business case analyses.	3 business case analyses.
Actual:	N/A	3	3	3		

#### FY 2007 Significant Accomplishments

*Strategic Management of Human Capital:* 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, thereby allowing offices to expedite extensions of job and incentive offers to outside applicants to better position the agency 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 agency has identified the following fields for aggressive recruitment and staff development: engineering (nuclear, structural, thermal, geotechnical, electrical, environmental, fire protection, and mechanical), security (physical protection, cyber, and network), nuclear physics, health physics, probabilistic risk assessment, digital instrumentation and control, seismology, volcanology, geology, and hydrology.

The NRC's strategic approach to training and development allows the agency to better establish priorities and leverage investments to ensure a comprehensive, integrated, competency-based system of staff training. This year, the NRC conducted concurrent Senior Executive Service candidate development programs and offered more frequent leadership potential programs to meet the need for additional supervisory and managerial positions created by the new reactor program and anticipated retirements.

*Competitive Sourcing:* 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 2007 Federal Activities Inventory Reform Act inventory in the Office of Management and Budget's (OMB) Workforce Inventories Tracking System on June 29, 2007. In accordance with the NRC's Competitive Sourcing Plan, the agency completed three business case analyses in FY 2007.

Information Technology and Information Management: An increase of resources in FY 2009 will provide the information technology infrastructure for enhanced user authentication and secure access to the National Source Tracking System (NSTS), information technology 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. Increased resources also provide for 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. Furthermore, increased resources will provide for the government-wide FY 2009 pay raise and other nondiscretionary compensation and benefits increases. The agency directly

realigned \$0.7 million of FY 2009 information technology and information management one-time new reactor costs to the New Reactor program before the full cost allocation. Specifically, the budget provides resources for the following:

- telecommunications services and support and equipment, data and voice communications services, internet service provider services, and audio and video-teleconferencing services;
- 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;
- implementation of Title 10 Part 95, "Facility Security Clearance and Safeguarding of National Security Information and Restricted Data Implementation," of the *Code of Federal Regulations;*
- information management activities, including the agency's document management system, public document room, internal and external web sites, and Freedom of Information Act and Privacy Act compliance.

*Output Measures:* The requested resources will support agency efforts to achieve the output targets in the following tables. Significant changes are being made to align these output measures with the measures in the NRC's Information Technology/Information Management Strategic Plan. In addition, following these tables are the most significant accomplishments in FY 2007.

Output Measure: 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 available through ADAMS.							
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Target:	Timeliness tar FOIA respons meeting notic documents ma available <sup>3</sup>						
Actual:							

<sup>&</sup>lt;sup>3</sup> Targets for FY 2009 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 for which NRC posted a meeting notice on the public meeting notice web site at least 10 days in advance of the meeting (90%); percent of non-sensitive, unclassified regulatory documents generated by the NRC and sent to the agency's Document Processing Center that are released to the public by the sixth working day after the date of the document (90%); percent of non-sensitive, unclassified regulatory documents received by the NRC that are released to the public by the sixth working day after the document is added to the ADAMS main library (90%).

Output Measure: External Stakeholder Satisfaction - Meets agency targets for external stakeholder satisfaction with key NRC information dissemination channels, including the NRC public web site.							
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Target:		Satisfaction target met for the NRC public web site <sup>4</sup>					
Actual:							

Output Measure: NRC's Enterprise Architecture maturity level as assessed by the Government Accountability Office.								
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:		New measure for FY 2009						
Actual:								

Output Meas accredited.	Output Measure: System Certification and Accreditation - Percent of major applications and general support systems that have been certified and accredited.							
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:		New measure in FY 2009						
Actual:								

-	Output Measure: Contingency Plan Testing - Percent of major applications and general support systems that have completed the annual test of their contingency plans.							
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:		90%						
Actual:	Actual: New measure in FY 2009							

Output Me	Output Measure: Percent of the time that key IT infrastructure services are available.							
	FY 2005	FY 2009						
Target:		99.5%						
Actual:								

<sup>&</sup>lt;sup>4</sup> Target for FY 09 is as follows: NRC score on the annual American Customer Satisfaction Index for Federal web sites (72).

## FY 2007 Significant Accomplishments

The NRC has largely aligned its information technology 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, and is aligned with the E-Records, Budget Formulation, and Geospatial programs. The NRC is currently implementing E-Travel, E-Training, E-Authentication, Federal Information Security Management Act reporting and training services, and E-Rulemaking. The NRC is also converting its paper-based employee records to the Office of Personnel Management's (OPM's) electronic personnel folder (EHRI). To institutionalize E-Gov, the NRC has established procedures to avoid information technology 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.

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 NRC's policy for SUNSI and PII. Furthermore, NRC issued Regulatory Issue Summary (RIS) 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. In addition, RIS 2007-04 was discussed during the SUNSI program session at the annual Regulatory Information Conference on March 13, 2007.

Additionally, the first phase of the New Reactor Application Document Intake and Review Pilot was deployed. This solution provides the capability for applicants to create and submit electronic Combined Operating License Application (COL) submittals to the NRC. Westinghouse successfully submitted a new reactor design control document (DCD) to the NRC on May 30, 2007. The Westinghouse DCD consisted of 270 individual files with navigational links and was profiled into ADAMS in two hours. Manual processing of this DCD would have taken two days (160 man-hours) and would not have supported the navigational links.

*Financial Management:* An increase of resources in FY 2009 will provide for payment and payroll services to support an increasing agency workload and modernization of the core accounting system. This is necessary because of the lack of continued vendor support for the existing software. Furthermore, the resource increase will provide for the government-wide FY 2009 pay raise and other nondiscretionary compensation and benefits increases. Specifically, the budget provides resources for the following:

- agency planning, budgeting, accounting, and financial systems and activities;
- ensure agency compliance with the Government Performance and Results Act (GPRA), including updating the agency's Strategic Plan and developing its annual Performance Plan and annual Performance Report;
- implement E-Travel, which will provide an integrated travel system that is expected to reduce the need for repetitive data input and more efficiently meet the needs of the travelers.

*Output Measures:* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide historical performance data on the measures from FY 2004 (where available). In addition, following these tables are the most significant accomplishments in FY 2007.

Output Measure: Meet statutory fee collection requirement.										
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009				
Target:	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.	Achieve approximately 100% actual collections when compared with projected collections. Maintain past due accounts receivable at 1% or less of annual billings for the fiscal year.				
Actual:	Target met.	98.9% collected. Maintained past due accounts receivable at less than 0.08% of annual billings.	Target met.	Target met.						

Output Measure: Percentage of non-salary payments made electronically and accurately within established schedule.									
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009			
Target:	95%	95%	95%	95%	95%	95%			
Actual:	99%	99%	99%	95%					

# FY 2007 Significant Accomplishments

*Budget and Performance Integration:* The NRC continues to make progress in achieving budget and performance integration in accordance with the President's Management Agenda. This progress includes adopting new outcome-based performance measures aligned with the agency's Strategic Plan, accurately monitoring program performance, and integrating performance information with associated costs.

Staff examined the output measures to ensure that they specifically address the agency's major resource drivers, as well as activities of particular interest to Congress and the public. As a result of that analysis, the agency will no longer report a number of output measures in an effort to create a more focused link between resources, activities, and results.

The NRC used the budget formulation system in FY 2007 as a pilot, replacing an outdated single-user, desktop database for the formulation of the FY 2009 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 will be populated agency-wide in FY 2008, allowing multiple users access to the system for the formulation of the FY 2010 budget.

*Improved Financial Management:* The agency's vision for improving financial management is to get out of the business of operating and maintaining financial systems 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 2007, the NRC completed its second year of implementing 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 agency included the results of the assessment in the Federal Managers' Financial Integrity Act Statement of Assurance.

*Policy Support:* An increase of resources in FY 2009 will provide for additional policy and adjudicatory support to the Commission. The increase also provides for the government-wide 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 for the OMB Program Assessment Rating Tool reviews.

*Permanent Change of Station:* Resources in FY 2009 will provide for permanent change of station activies, based on projected FTE increases. Specifically, the budget provides resources for employee relocations, including resident inspector moves and new agency hires. Agency FTE growth, mandatory transfers of resident inspectors, and inflation have resulted in increased costs.

# The NRC's Data Collection Procedures

Most of the data used to measure the U.S. Nuclear Regulatory Commission's (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 Fiscal Year (FY) 2008-2013, and the NRC rule making on Title 10, Part 35, of the Code of Federal Regulations (10 CFR Part 35), "Medical Use of Byproduct Materials."

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

Data for abnormal occurrences 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 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) the NRC licensee reports, which are carefully analyzed, (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 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 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 are 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). 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 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 abnormal occurrences. 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 abnormal occurrence 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.

<u>Prevent the occurrence of any acute radiation exposures resulting in fatalities</u>. Determining whether or not any deaths result from acute radiation exposure is fundamentally 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.

<u>Prevent the occurrence of any releases of radioactive materials that cause significant adverse</u> <u>environmental impacts</u>. 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 is 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. The data for performance indicators is collected by licensees 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 licensees 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 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 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 the Reactor Oversight Process external web page was updated to show the red indicator.

# • Number of significant accident sequence precursors (ASP) of a nuclear accident.

# Reactor Safety Target: Zero

Verification: The Commission has an ASP program to systematically evaluate U.S. nuclear power plant operating experience 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 Licensee Event Report Search System (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 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 Significant Determination Process (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 finalize. 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  $\triangle$ CDP of  $\ge 1 \times 10^{-3}$ .

• 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 Reactor Oversight Process (ROP) Action Matrix.

# Reactor Safety Target: Less than or equal to 3

*Verification:* The data for this performance measure is 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

*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 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 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 follow-up 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 which 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 Part 50 allows licensees to temporarily exceed, for good reason, the ALARA dose values, the performance measure is set to 2.

#### Goal 1 - Safety: Ensure 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, and regardless of whether they 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. Follow up 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 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 inspection 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 NRC regions are consistently 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 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, 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 fatalities. Determining whether or not 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 widely disseminate the information to internal and external stakeholders.

The fuel facilities, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation, 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 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 Conference of Radiation Control Program Directors (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 or not to 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.

NRC believes the data collected to meet this strategic outcome are free from bias. 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. 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 results in unintended permanent functional damage to an organ or physiological system, as determined by a physician, in accordance with AO Criteria 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 NMSS and FSME, the NMED is an essential system used to collect information on such events.

The fuel facilities, materials, high-level waste repository, decommissioning, and spent fuel storage and transportation 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 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.

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 NRC to become aware of an event that results in significant radiation exposures. 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 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 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, we will use 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 that exceeds the limits for reporting abnormal occurrences as given in Abnormal Occurrence criteria 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, 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 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 abnormal occurrences as given by AO Criterion 1.B.1. 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 or not 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. 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 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 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 AO 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, which results in significant radiation exposures to members of the public and/or occupational workers that exceed the dose limits in of 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 Criteria 1.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, 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 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:* There is a logical basis for using events involving radiation exposures to the public and occupational workers from radioactive material that exceed AO Criteria I.A., as a performance measure for ensuring the protection of public health and safety. An event is considered an abnormal occurrence if it is determined to be significant from the standpoint of public health or safety. NRC's regulatory process, including licensing, inspection, guidance, regulations, and enforcement activities, is designed to mitigate the likelihood of an event that would exceed AO Criteria I.A.

Events of this magnitude are rare. In the unlikely event that an abnormal occurrence should occur, NRC or Agreement State technical specialists will confirm whether the criteria were met, with input provided by expert consultants, as necessary.

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.

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 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 exceeds 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 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, 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 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:* The regulations in 10 CFR Part 20 provides 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. 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, NRC or Agreement State technical specialists or our consultants will confirm whether the criteria were met, with input provided by expert consultants, as necessary.

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.

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 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**

#### 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 the AO Criterion I.C.1, the agency counts any unrecovered lost, stolen, or abandoned sources that exceed the values listed in Appendix P, "Category 1 and 2 Radioactive Material," to 10 CFR Part 110, "Export and Import of Nuclear Equipment and Material." Excluded from reporting under this criterion are those events involving sources that are lost, stolen, or abandoned under certain conditions, specifically (1) sources abandoned in accordance with the requirements of 10 CFR 39.77(c), (2) sealed sources contained in labeled, rugged source housings, (3) recovered sources with sufficient indication that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 did not occur during the time the source was missing, (4) unrecoverable sources lost under such conditions that doses in excess of the reporting thresholds specified in AO Criteria I.A.1 and I.A.2 were not known to have occurred, and (5) other sources that are lost or abandoned and declared unrecoverable; for which the agency has determined that the risk-significance of the source is low based on the location (e.g., water depth) or physical characteristics (e.g., half life, 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 that are 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 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 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 will ask 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. Implementation of this system will create and maintain an inventory of risk-significant sources. This rulemaking codifies and clarifies 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. In conjunction with this rulemaking, FSME will modify its Procedure SA-300 to specifically require Agreement States to report the recovery of a risk-significant source immediately to the NRC Headquarters Operations Center when notified by a licensee.

*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 followup.

If an event subject to the reporting requirements described above occurs, it would result in a prompt and thorough investigation of the event, its consequences, its root causes, and the necessary actions by the licensee, the NRC, and/or an Agreement State to mitigate the situation and prevent recurrence.

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

Verification: The AO Criterion I.C.2, "substantiated" means a situation that requires additional action by the agency or other proper authorities because of an indication of loss, theft, or unlawful diversion—such as an allegation of diversion, report of lost or stolen material, statistical processing difference, or other indication of loss of material control or accountability-that cannot be refuted following an investigation. A formula quantity of special nuclear material 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.

*Verification:* Licensees must record events associated with AO 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 AO Criterion I.C.4, a "substantial breakdown" is defined as a red finding in the security oversight program 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.

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 AO Criterion I.C.5, any alleged or suspected violations by NRC licensees of the Atomic Energy Act, Espionage Act, or other Federal statutes related to classified or safeguards information must be reported to the NRC under the requirements 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 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.

#### **Goal 3 - Openness: Ensure openness in our regulatory process.**

#### Strategic Outcome:

• Stakeholders are informed and involved in NRC processes as appropriate.

#### Performance Measures:

• Percentage of selected openness output measures that achieve performance targets is equal to or greater than 88 percent.

*Verification:* The NRC views nuclear regulation as the public's business and, as such, it should be transacted openly and candidly in order to maintain the public's confidence. The goal to ensure openness explicitly recognizes that the public must be informed about, and have a reasonable opportunity to participate meaningfully in, the NRC's regulatory processes. In assessing how the NRC will gauge its openness with our stakeholders, NRC will (1) provide accurate and timely information to the public about the uses and risks of radioactive materials; (2) enhance the awareness of the NRC's independent role in protecting public health and safety and the environment; (3) provide accurate and timely information about the safety performance of the licensees regulated by the NRC; (4) provide a fair and timely process to allow public involvement in NRC decision-making in matters not involving sensitive unclassified, safeguards, classified, or proprietary information; (5) provide a fair and timely process to allow authorized (appropriately cleared with a need to know) stakeholders to participate in NRC decision-making in matters involving sensitive unclassified, safeguards, classified, safeguards, classified, safeguards, classified, safeguards, classified, safeguards, classified, or proprietary information; and (6) Obtain early public involvement on issues most likely to generate substantial interest and promote two-way communication to enhance public confidence in the NRC's regulatory processes.

*Validation:* Overall actual performance will be measured by determining the percent of the associated output measures that delivered their intended openness outcome. At a minimum, in order to meet the overall target, 78 percent of the output measure targets must be met.

The process of collecting the data and making sure the information is complete, accurate, and consistent will be the responsibility of the individual office director who will review and approve the data submitted by staff.

#### Goal 4 - Effectiveness: Ensure that NRC actions are effective, efficient, realistic, and timely.

#### <u>Strategic Outcome:</u>

• No significant licensing or regulatory impediments to the safe and beneficial uses of radioactive materials.

#### Performance Measures:

• The percentage of selected processes that deliver desired efficiency improvement is > 70 percent. (Goal is > 90 percent by 2008).

*Verification:* NRC has challenges that are coming at a time when initiatives such as the Government Performance and Results Act are challenging Federal agencies to become more effective and efficient and to justify their budget requests with demonstrated program results. The drive to improve performance in Government, coupled with increasing demands on the NRCs finite resources, clearly indicates a need for the agency to become more effective and efficient. NRC has established a performance measure to improve desired efficiency which supports the two primary goals of safety and security and also addresses management excellence.

On an annual basis, candidate processes would be selected as part of this performance measure. For the purposes of this measure, a desired efficiency improvement is defined as an improvement or positive change in the processes' cost, quality, productivity, and/or timeliness. A desired efficiency improvement would be expressed as resource savings or cost avoidance for the agency or as a positive benefit to external stakeholders with respect to effectiveness, efficiency, or realism.

Offices will use the following process to identify and report on desired efficiency improvements:

(1) Select and define a candidate process - Offices will identify processes at the beginning of each fiscal year which they will measure for desired efficiency improvement.

(2) Analyze process for areas in need of improvement - This could include cost reduction, quality and or timeliness of work, or other unique factors as appropriate which can be measured for desired efficiency improvement.

(3) Establish targets for efficiency improvements - Based on past experience and if previous trend data is available, offices will identify specific desired targets which they feel are challenging but can be achieved. The targets could involve improvements in cost, quality, productivity, and/or timeliness.

(4) Report progress annually - Offices will report the actual data at the end of each fiscal year and may adjust the target accordingly based on previous years results.

*Validation:* Overall actual performance will be measured by determining the percent of the processes selected annually that delivered their intended desired efficiency improvement. At a minimum, 70 percent of the selected processes must have achieved their targets.

The process of collecting the data and making sure the information is complete, accurate, and consistent will be the responsibility of the individual office director who will review and approve the data submitted by staff.

• No more than one instance per program where licensing or regulatory activities unnecessarily impede the safe and beneficial uses of radioactive materials.

### Target:Reactor Program = 2 (1 per Tier II program).Materials/Waste Program = 5 (1 per Tier II program)

#### Verification and Validation:

This measure is intended to serve as a precursor to the strategic-level outcome of "no significant licensing or regulatory impediments to the safe and beneficial uses of radioactive materials." The purpose of the measure is to provide an indication of overall agency performance with respect to the strategic objective of enabling the safe use of radioactive materials for beneficial civilian purposes. The following table describes how the agency fulfills its role in "enabling" at various phases of the business cycle:

	Potential applicants	Applicants	Current licensees
Intent of "enabling" in each category	Provide an effective and efficient regulatory infrastructure so that this group is inclined to pursue licenses if they so choose. Ensure that the NRC is not a barrier to entry due to unnecessary regulatory burden.	Provide stable and predictable processes so that applicants can enter the business in a timely fashion, only constrained by their ability to operate safely and securely (i.e., abide by NRC regulations).	Ensure that the regulation does not pose an unnecessary regulatory burden.

The key difference between this performance measure and the related strategic outcome is that the strategic outcome focuses on significant impediments, while the performance measure does not contain this qualifier. Thus, the performance measure is designed to capture lower-level instances where NRC programs may have unnecessarily impeded. The following types of examples could count against this performance measure (and possibly against the strategic outcome as well, depending on severity):

- missing a key timeliness measure (e.g., for fuel cycle licensing actions or reactor power uprates) or milestone (e.g., completing license termination for complex decommissioning cases)
- not adjusting the regulatory framework to support new technologies or otherwise respond to significant changes in the regulatory environment
- imposing unnecessary regulatory burden on licensees or applicants to the extent that the NRC becomes a barrier to entry or sustainability

Efforts to risk inform regulatory programs, improve programmatic effectiveness and efficiency, and reduce unnecessary regulatory burden are all positive steps that can be taken to enable the safe use of radioactive materials.

Because the NRC does not have prior experience in applying this type of measure, the metric will likely require adjustment over the first few years. The intent is to set aggressive annual targets that reflect the agency's commitment to continuous improvement. Consequently, it should be expected that some impediments will occur at the performance level due to resource limitations, emergent high-priority demands, or other circumstances beyond the control of program managers. Exceptions reported under this measure are considered in the agency's assessment of the related strategic outcome.

### **Goal 5 - Management:** Ensure excellence in agency management to carry out the NRC's strategic objective.

#### <u>Strategic Outcomes:</u>

- Continuous improvement in NRC's leadership and management effectiveness in delivering the mission.
- A diverse, skilled workforce and an infrastructure that fully supports the agency's mission and goals.

#### Performance Measures:

• Percentage of selected NRC management programs reported by support offices that delivered intended outcomes is equal to or greater than 80 percent.

*Verification:* The NRC considered the management and support needed to achieve the agency's mission, preexisting management challenges, and other initiatives. This goal includes strategies for the management of human capital, infrastructure management, improved financial performance, expanded electronic government, budget and performance integration, and internal communications. The process of collecting the data and making sure the information is complete, accurate, and consistent will be the responsibility of the individual office director who will review and approve the data submitted by staff.

*Validation:* Overall actual performance will be measured by determining the percent of the five programs that delivered their intended management outcomes. At a minimum, in order to meet the overall target of 90 percent, all 5 programs must achieved an average score of 90 percent of the activity targets.

## • The percentage of selected processes reported by support offices that deliver desired efficiency improvement is equal to or greater than 90 percent. (Goal is > 90 percent by 2008).

*Verification:* NRC has challenges that are coming at a time when initiatives such as the Government Performance and Results Act are challenging Federal agencies to become more effective and efficient and to justify their budget requests with demonstrated program results. The drive to improve performance in Government, coupled with increasing demands on the NRC's finite resources, clearly indicates a need for the agency to become more effective and efficient. NRC has established a performance measure to improve desired efficiency which supports the two primary goals of safety and security, and also addresses management excellence.

On an annual basis, candidate processes would be selected as part of this performance measure. For the purposes of this measure, a desired efficiency improvement is defined as an improvement or positive change in the processes' cost, quality, productivity, and/or timeliness. Desired efficiency improvement would be expressed as resource savings or cost avoidance for the agency or as a positive benefit to external stakeholders with respect to effectiveness, efficiency or realism.

Support offices will use the following process to identify and report on desired efficiency improvements:

(1) Select and define a candidate process - Offices will identify processes at the beginning of each fiscal year which they will measure for desired efficiency improvement.

(2) Analyze process for areas in need of improvement - This could include cost reduction, quality and or timeliness of work, or other unique factors as appropriate which can be measured for desired efficiency improvement.

(3) Establish targets for efficiency improvements - Based on past experience and if previous trend data is available, offices will identify specific desired targets which they feel are challenging but can be achieved. The target improvements could involve cost, quality, productivity, and/or timeliness.

(4) Report progress annually - Offices will report the actual data at the end of each fiscal year and may adjust the target accordingly based on previous years results.

*Validation:* Overall actual performance will be measured by determining the percent of the processes selected annually that delivered their intended desired efficiency improvement. At a minimum, 75 percent of the selected processes must have achieved their targets.

The process of collecting the data and making sure the information is complete, accurate, and consistent will be the responsibility of the individual office director who will review and approve the data submitted by staff.

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#### APPENDIX V: REPORT ON DRUG TESTING

#### **REPORT TO CONGRESS ON DRUG TESTING**

The Congress and the 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, follow up, reasonable suspicion, and accident-related drug testing. Testing was initiated for non-bargaining unit employees in November 1988 and for bargaining unit employees in December 1990, after an agreement was negotiated with the National Treasury Employees Union.

During fiscal year (FY) 2007, NRC had approximately 1,900 employees occupying testingdesignated positions subject to random testing. Potential selectees interviewed for positions in these categories were also subject to applicant testing.

The NRC conducted approximately 1,150 tests of all types between October 1, 2006, and September 30, 2007.

The NRC reviewed its employee drug testing records for FY 2007 and confirmed that there was one positive drug test. The subject employee's security clearance was suspended and the employee was referred to a Drug Rehabilitation Assessment Coordinator through the NRC Employee Assistance Program in accordance with the NRC Drug-Free Workplace Plan.

One applicant tested positive in January 2007. This applicant was not offered employment with the NRC.

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 V: REPORT ON DRUG TESTING

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#### APPENDIX VI: SUMMARY OF REIMBURSABLE WORK AGREEMENTS

SUMMARY OF REIMBURSABLE WORK AGREEMENTS <sup>1</sup> (New Budget Authority)					
	FY 2007	FY 2008 (Estimate)	FY 2009 (Estimate)		
INTERNATIONL ASSISTANCE TO FOREIGN GOVERNMEN	TS AND ORGANIZ	ATIONS			
International Invitational Travel (IAEA & various foreign governments and international organizations)	\$63,000	\$180,000	\$180,000		
Material, Protection, Control and Accounting Assistance to Russia/NIS (DOE)	\$0	\$0	\$0		
Support to FSAN – Licensing and Regulatory Review for U.S./Russian Plutonium Disposition (DOE)	\$0	\$0	\$0		
Nuclear Safety Initiatives for the New Independent States (USAID)	\$0	\$3,500,000	\$1,250,000		
ADMINISTRATIVE AGREEMENTS					
Agreement States Training (State Governments)	\$155,000	\$60,000	\$0		
Criminal History Program (Licensees)	\$1,164,000	\$1,100,000	\$1,210,000		
Material Access Authorization Program (Licensees)	\$483,000	\$350,000	\$350,000		
Information Access Authorization Program (Licensees)	\$597,000	\$250,000	\$600,000		
Employee Detail – Project Prometheus: Surface Power Program (NASA)	\$0	\$0	\$0		
Invitational Travel – American Institute for Taiwan	\$0	\$7,000	\$0		
OTHER AGREEMENTS					
Mars Science Laboratory – 2009 Project (NASA)	\$70,000	\$100,000	\$0		
Foreign Cooperative Research Agreements (Multiple)	\$1,655,000	\$1,000,000	\$1,000,000		
Global Nuclear Energy Partnership (GNEP) Support (DOE)	\$1,000,000	\$0	\$0		
Foreign Research Reactor Spent Nuclear Fuel (DOE)	\$0	\$375,000	\$375,000		

<sup>1</sup> Does not include classified reimbursable work agreements.

#### APPENDIX VI: SUMMARY OF REIMBURSABLE WORK AGREEMENTS

SUMMARY OF REIMBURSABLE WORK AGREEMENTS <sup>1</sup> (New Budget Authority)					
	FY 2007	FY 2008 (Estimate)	FY 2009 (Estimate)		
Navy Reviews (U.S. Navy)	\$10,000	\$12,000	\$12,000		
Naval Reactors Emergent Review Items (DOE)	\$0	\$0	\$0		
Waste Actions for Hanford (DOE	\$0	\$600,000	\$750,000		
Next Generation Nuclear Plant Project in Idaho (DOE)	\$1,750,000	\$2,250,000	\$0		
ISCMEM (DOE)	\$0	\$0	\$0		
Report on Radiation Exposure and Support to NCRP (EPA)	\$75,000	\$25,000	\$25,000		
TOTAL	\$7,022,000	\$9,809,000	\$5,752,000		

#### DISCONTINUED GOALS, PERFORMANCE AND OUTPUT MEASURES

The U.S. Nuclear Regulatory Commission's (NRC's) fiscal year (FY) 2008-2013 Strategic Plan contains two strategic goals of Safety and Security, while characterizing Openness, Effectiveness, and Management are seen as elements of Organizational Excellence in support of the agency's goals. In order for the FY 2009 Performance Budget to be consistent with the Strategic Plan, the agency-wide performance measures under the former goals of Openness, Effectiveness, and Management are being discontinued. For reporting purposes, those measures will continue to be shown in this section of the budget through FY 2008.

Although the agency-wide Openness, Effectiveness, and Management performance measures are being discontinued, a number of the most significant supporting output measures under those goals are being retained in the budget. These output measures are shown in the appropriate program or support office chapters in the budget.

The agency has also reviewed its remaining performance and output measures to make them more challenging for FY 2008 and FY 2009. In that process, the agency removed a number of output measures that were not clearly tied to the agency's major program drivers. For reporting purposes, those measures will continue to be shown in this section of the budget through FY 2008.

#### **Goal 3-Openness – Performance Measures**

#### 1. Percentage of selected openness output measures that achieve performance targets.

FY 2007 Target - ≥ 88% FY 2007 Actual - 66%

FY 2008 Target -  $\ge$  88% FY 2008 Actual -

#### The following output measures support performance measure one:

1a. Ninety percent of stakeholder formal requests for information receive an NRC response within 60 days of receipt.
FY 2007 Actual – 100%
FY 2008 Actual –
Measure discontinued after FY 2008

1b. Ninety percent of non-sensitive, unclassified regulatory documents received by the NRC are released to the public by the sixth working day after the document is added to the Agencywide Documents Acess and Management System (ADAMS) main library. (Note-This measure will be tracked under Appendix III Information Technology and Information Management section beginning in FY 2009)

FY 2007 Actual – 87% FY 2008 Actual -Measure discontinued after FY 2008

1c. The NRC achieves a 72% user satisfaction score for the agency's public web site greater than or equal to the Federal Agency Mean score based on results of the yearly American Customer Satisfaction Index for Federal Web sites. (Note-This measure will be tracked under Appendix III Information Technology and Information Management section beginning in FY 2009)

FY 2007 Actual – 71% FY 2008 Actual -Measure discontinued after FY 2008

1d. Complete 50% of FOIA requests in 20 business days (Note-This measure will be tracked under Appendix III Information Technology and Information Management section beginning in FY 2009)

FY 2007 Actual - 67% FY 2008 Actual -Measure discontinued after FY 2008

1e. Issue 90% of Director's Decisions fewer than 2.206 within 120 days. FY 2007 Actual – 100% FY 2008 Actual -Measure discontinued after FY 2008

1f. Percentage of stakeholders that believe they were given sufficient opportunity to ask questions or express their views.
FY 2007 Actual – 96%
FY 2008 Actual Measure discontinued after FY 2008

1g. Complete all the key stakeholder and public interactions for the reactor performance assessment cycle consisting of mid-cycle review and letter report, end-of-cycle review report and letter, public meetings, agency action review, and Commission meeting. FY 2007 Actual – 100% FY 2008 Actual – 100% Measure discontinued after FY 2008

1h. At least 90 percent of Category 1, 2 and 3 meetings on regulatory issues are issued at least 10 days in advance of the meeting. (Note-This measure will be tracked in Appendix III, Information Technology and Information Management section, beginning in FY 2009)

FY 2007 Actual – 93% FY 2008 Actual -Measure discontinued after FY 2008

**2.** 90% of surveyed stakeholders that perceive the NRC to be open in its processes.

FY 2007 Target - ≥ Federal Agency Weighted Average. FY 2007 Actual- 94% Measure discontinued after FY 2007 **Goal 4-Effectiveness – Performance Measures** 

### 1. The percentage of selected processes that deliver desired efficiency improvement is > 70%. (Goal is > 90% by FY 2008).

1a. Reactor Licensing Actions (Supported by Nuclear Reactor activities).
FY 2007 Target - 95% of inventory is less than one year old and 100% is less than two.
FY 2007 Actual – 97% for one year and 100% for two years.
FY 2008 Target - Reduce the average age at closure for licensing actions by at least 2.5% compared to the average age at closure for amendments closed during FY 2005 and FY 2006.
FY 2008 Actual Measure discontinued after FY 2008

1b. Enforcement process for handling discrimination allegations.
FY 2007 Target - 10% reduction in the average enforcement processing time.
FY 2007 Actual – 0%.
Measure discontinued after FY 2007

1c. Fuel Cycle Licensing (supported by Fuel Facilities activities).
FY 2007 Target – Eliminate the requirement for license renewal and approve a living license for two Category II facilities
FY 2007 Actual – Not Eliminated
FY 2008 Target – Commensurate with a new regulatory framework that provides for a 40-year license term, the next cycle of Category III license renewal applications will be considered for a 40-year license at the rate of one per year.
FY 2008 ActualMeasure discontinued after FY 2008

1d. Decommissioning License Termination Review (supported by Decommissioning and Low-Level Waste activities).
FY 2007 Target – Continuation of FY 2006 3 year metric
FY 2007 Actual – N/A
FY 2008 Target - Continuation of FY 2006 3 year metric
FY 2008 ActualMeasure discontinued after FY 2008

1e. Incident response and emergency preparedness exercises.
FY 2007 Target – reduce resources expended in support of each interagency exercise by 5 % while still accomplishing agency goals for each exercise.
FY 2007 Actual – Total reduction is 6.67% (0.1 FTE of 1.5 FTE)
Measure discontinued after FY 2007

1f. Reactor Rulemaking (supported by Reactor Licensing activities). (NRR)
FY 2007 Target – Implement process enhancements to permit improvement of the rulemaking petition timeliness by 5%.
FY 2007 Actual- 5% timeliness met
FY 2008 Target - Reduce the average time to complete rulemaking actions by at least 2.5% compared to the historical rolling average.
FY 2008 Actual –
Measure discontinued after FY 2008

1g. Reactor Licensing Renewals (supported by Reactor Licensing activities). (NRR) FY 2007 Target – Achieve an average 5% reduction in license renewal resources for applications completed in FY 2007. FY 2007 Actual –5% reduction met

Measure discontinued after FY 2007

1h. High-Level Waste Repository Resolution of key technical issues and pre-closure concerns. FY 2007 Target – New measure in FY 2008

FY 2008 Target - Reduce the NRC staff cost for letters to DOE documenting how NRC is addressing key issues by 5% from the previous fiscal year, while still meeting the timeliness and quality targets. Baseline data will be collected in FY 2007 (this is an efficiency metric for the output measure entitled "Resolve key technical issues developed during pre-licensing"). FY 2008 Actual –

Measure discontinued after FY 2008

2. No more than one instance per program where licensing or regulatory activities unnecessarily impede the safe and beneficial uses of radioactive materials.

FY 2007 Target - Reactor Program = 2 (1 per Tier II program) Materials/Waste Program = 5 (1 per Tier II program) FY 2007 Actual - Met FY 2008 Target - Reactor Program = 3 (1 per Tier II program) Materials/Waste Program = 4 (1 per Tier II program) FY 2008 Actual -Measure discontinued after FY 2008

#### **Goal 5-Management - Performance Measures**

1. The percentage of selected processes reported by support offices that deliver desired efficiency improvements.

FY 2007 Target -  $\geq$  70% FY 2007 Actual - 0% FY 2008 Target -  $\geq$  90% FY 2008 Actual -Measure discontinued after FY 2008

The following output measures support Management Excellence performance measure number one: Ninety percent of selected process reported by support offices to deliver desired efficiency improvements:

1a. FY 2007 Target – Percent reduction in time necessary to add or remove employees from drug testing pool.

FY 2007 Actual - Output measure deleted because all employees will be subject to drug testing in FY 2008.

1b. FY 2007 Target - Five percent reduction of agency FTEs used to develop and submit the FY 2008 and FY 2009 performance budgets.

FY 2007 Actual – 12% increase.

1c. FY 2007 Target – Eighty percent of employees that are hired within 45 days (from the time a vacancy announcement closes until an offer of employment is made). FY 2007 Actual – 31%

2. Percentage of selected NRC management programs reported by support offices that deliver intended outcomes.

FY 2007 Target -  $\geq$  70% FY 2007 Actual - 100% FY 2008 Target -  $\geq$  80% FY 2008 Actual-Measure discontinued after FY 2008

The following output measures support the Management Excellence performance measure number two:

2.a. Eighty percent of Infrastructure Management activities achieve performance targets. FY 2007 Actual – The total results of the below activities equal 100%

Space Management activity - Space occupancy rate at NRC Headquarters 85-95 percent.

Facilities Management - Overall customer satisfaction with NRC Headquarters building services provided by Administration Directorate of 85%.

Security- No incidents of unauthorized access to NRC Headquarters and Regional Offices that results in personal injury to NRC occupants, property damage or release of protected information.

Administrative Support Services - 95% of staff are satisfied with administrative support services.

Acquisition of Goods and Services – 90% of competitive contract actions over \$100K are completed within established milestone schedule.

Information Technology Infrastructure – 99% of the time agency-wide key Information Technology Infrastructure services are available to the staff. Measure moved to Appendix III under *Information Technology and Information Management* beginning in FY 2009.

2.b. Financial Performance/Budget & Performance Integration Program - Seventy percent of Financial Performance/Budget & Performance Integration activities achieve performance targets. FY 2007 Actual – The total results of the below activities equal 88%

Planning, Budget, and Analysis activity - Did NRC submit and publish the Agency's Performance Budget on or before the due dates established by OMB and Congress?

Financial Management activity - Did NRC submit and publish the Agency's Performance and Accountability Report (PAR) on or before the due dates established by OMB?

Financial Management Activity - Did NRC receive an unqualified opinion on the Agency's financial statement audit with no material weaknesses?

Financial Management activity - Do agency-wide financial systems meet government-wide requirements for financial systems?

Financial Management activity – 95% of salary payments made accurately within established schedule.

Cost Accounting - Produce 100% of routine quarterly reports at the end of each accounting quarter.

2.c. Expanded Electronic Government Program – 75% of Expanded Electronic Government activities achieve performance targets.
FY 2007 Actual – The total results of the below activities equal 75%

Federal Information Security Management Act (FISMA) - Complete certification and accreditation on 90% of the systems scheduled to be accredited.

Office of Management and Budget (OMB) - Achieve 3 out of 5 yellow criteria on OMB E-Government scorecard (4 out of 5 in FY 2007). Achieve 5 out of 5 yellow criteria on the OMB E-Government scorecard (100 %) in FY 2008.

Project Management Methodology (PMM) - PMM pilot test to be completed by the end FY 2006. New development activities will use PMM by FY 2007. In FY 2008: Full implementation for all new development activities.

Portfolio Management (PM) - review major IT Investments using a PM system. 80 percent of major IT investments will be reviewed using PM system in FY 2007. In FY 2008: 90% of major IT investments will be reviewed using a PM system.

2.d. Management of Human Capital Program – 80% of Human Capital activities achieve performance targets.

FY 2007 Actual – The total results of the below activities equal 80%

Recruitment and Staffing - Percent of actual FTE utilization will be within 2 % of an authorized ceiling.

Recruitment and Staffing -90% of human capital strategies to close critical skill gaps are identified within 60 days. (HR)

Recruitment and Staffing -25% of professional hires at the entry level.

Training and Development – 95% of identified training needs addressed with training and development opportunities.

2.e. Internal Communication Program – 90% of Internal Communication activities that achieve performance target.

FY 2007 Actual – NA since the two activities listed below are not available.

FY 2007 Target - Staff satisfaction with internal web site. Develop/deploy survey and establish baseline.

FY 2007 Actual - Setting the baselines for this measure has been postponed until FY 2008 when it will be set as part of the NRC Employee Survey. Performance will be tracked internally.

FY 2008 - > FY 2007 baseline Measure discontinued after FY 2008

FY 2007 Target - Internal Communication Activity - Greater percentage of NRC staff that perceives NRC internal communications to be more effective in FY 2009 than in previous survey.

FY 2007 Actual – Waiting for results from Office of Personnel Management (OPM).

#### NUCLEAR REACTOR REGULATION

#### **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 -Measure discontinued after FY 2008 Output measure: Negotiate/renew bilateral exchange arrangements between NRC and appropriate

Output measure: 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 -

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 -Measure discontinued after FY 2008

<u>Output measure</u>: Numbers and types of Reactor technical training courses offered. FY 2007 Target - Percentage of identified training needs addressed with training and development opportunities. (Reported annually) Target: 95% FY 2007 Actual - Met Measure discontinued after FY 2007

#### MATERIALS AND WASTE PROGRAM

#### FUEL FACILITIES ACTIVITY

Output measure: 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 -

Measure discontinued after FY 2008

#### NUCLEAR MATERIALS USERS ACTIVITY

Output Measure: 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 – 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 – Measure discontinued after FY 2008

Output Measure: 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-

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 - 86.7% FY 2008 Target - 80% of assists to staff are concluded in < 90 days. FY 2008 Actual-Measure discontinued after FY 2008

#### HIGH-LEVEL WASTE REPOSITORY ACTIVITY

Output Measure: 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 – 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 -

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-

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-

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-

Measure discontinued after FY 2008

Output measure: 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 -

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 1 programmatic improvement identified in the FY 2007

Protection and Performance Assessment Operating Plan.

FY 2008 Actual -

Measure discontinued after FY 2008

#### MANAGEMENT AND SUPPORT

## INFORMATION TECHNOLOGY AND INFORMATION MANAGEMENT

<u>Output Measure</u>: Security, availability, and integrity of NRC major applications and general support systems will ensure no interruption to business functions due to IT system security breaches.

FY 2007 Target - All major applications and general support systems have updated security accreditation packages.

FY 2007 Actual - 19%

FY 2008 Target - This output measure is deleted in FY 2008 because it is duplicated and covered under the FISMA performance measure.

Output Measure: NRC is addressing all known IT statutory requirements as appropriate. FY 2007 Target - For 100% of statutory requirements, the NRC has action plans in place to address requirements. FY 2007 Actual - 100% Measure deleted after FY 2007

<u>Output Measure</u>: Complete at least one key process improvement per year in select program and support areas that increase efficiency, effectiveness, and realism.

FY 2007 Target - 1 key process completed.

FY 2007 Actual - 1 key process completed.

Measure discontinued after FY 2007

Output Measure: 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-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 -

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 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 -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 -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 -Measure discontinued after FY 2008.

## FINANCIAL MANAGEMENT

Output Measure: 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 -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. 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-Measure discontinued after FY 2008

The following table shows the relationship between the agency's goals, performance measures, and its eight sub-programs. For example, the sub-programs 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 sub-programs. The strategic outcome of "prevent the occurrence of any inadvertent criticality events" relates to all of the agency's sub-programs. Each program evaluates event reports and other pertinent data<sup>1</sup> to report the results for each strategic outcome, performance measure, and output measure.

<sup>&</sup>lt;sup>1</sup> 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.

#### Goals, Performance Measure, and Program Crosswalk: - Safety

	NRC Programs							
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decomm & LLW	Spent Fuel
Strategic Outcomes								
Prevent the occurrence of any nuclear reactor accidents.	x	x	X					
Prevent the occurrence of any inadvertent criticality events.	x	x	X	x	x	x	x	x
Prevent the occurrence of any acute radiation exposures resulting in fatalities.	x	X	x	x	x	x	x	x
Prevent the occurrence of any releases of radioactive materials that result in significant radiation exposures.	X	x	x	x	X	X	x	x
Prevent the occurrence of any releases of radioactive materials that cause significant adverse environmental impacts.	X	X	x	x	x	x	X	X
Performance Measures								
Number of new conditions evaluated as red by the NRC's reactor oversight process.			X					
Number of significant accident sequence precursors (ASPs) of a nuclear reactor accident.			X					
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.			X					
Number of significant adverse trends in industry safety performance.			X					
Number of events with radiation exposures to the public or occupational workers that exceed Abnormal Occurrence Criterion I.A.	x	x	x	x	x	x	x	x
Number of radiological releases to the environment that exceed applicable regulatory limits.	X	x	x	x	x	X	x	X

	NRC Programs							
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decomm & LLW	Spent Fuel
Output Measures								
Review early site permit applications on the schedules negotiated with the applicants.	x							
Review design certification applications on the schedules negotiated with the applicants.	x							
Review combined license (COL) applications on the schedules negotiated with the applicants.	x							
Licensing actions completed per year.		x						
Age of licensing action inventory, except for license renewal and iSTS conversions.		x						
Other licensing tasks completed per year.		x						
Age of Other Licensing Task Inventory.		x						
Timeliness of completing actions on critical research programs.		x						
Acceptable technical quality of agency research technical products.		x						
Completion of license renewal application reviews.		x						
Number of plants for which the baseline inspection program was completed during the most recently ended inspection cycle.			X					
Timeliness of Significance Determination Process (SDP) evaluations.			X					
Number of operator licensing examinations administered.			X					
Time to complete reviews of technical allegations.			X					
Timeliness in completing enforcement actions.			X					
Reactor investigations output measures: Timeliness in completing investigations - Target 1.			x					
Timeliness in completing investigations - Target 2.			X					
Emergency Response Performance Index.			x					

	NRC Programs							
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decomm & LLW	Spent Fuel
Timeliness of fuel cycle licensing actions (amendments, renewals, new applications, and reviews) from the date of acceptance (for licensing actions received after October 1, 2000).				x				
Number of fuel cycle licensing actions (amendments, renewals, new applications, and reviews) from the date of acceptance completed per year.				x				
Timeliness of Safety and Safeguards inspection modules.				x				
Safety and safeguards inspection module.				x				
Timeliness in completing reviews for technical Allegations.				x				
Timeliness of licensing actions- review of application for new materials licenses and license amendments					x			
Timeliness of licensing actions - reviews of application for materials license renewals and sealed source and device designs.					x			
Timeliness of safety inspections of materials licensee.s					x			
Timeliness in completing investigations - Target 1.					x			
Timeliness in completing investigations - Target 2.					x			
Timeliness in completing enforcement actions.					x			
Timeliness in completing reviews for technical allegation.s					x			
Percentage of Materials and Waste rulemakings completed on schedule.					x			
Issuances of NRC import/export authorizations.					x			
After receipt of a license application, major milestones are completed on time.						x		
High-Level Waste Repository Resolution License Application Review.						x		
Timeliness in completing reviews for technical allegations						x		

	NRC Programs							
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decomm & LLW	Spent Fuel
Clean-up complex materials, fuel cycle sites, and power reactors; complete uranium recovery licensing actions.							X	
Support program licensing activities by preparing and/or reviewing required environmental reports.							X	
DOE waste incidental to reprocessing (WIR) reviews completed.							X	
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.							x	
Complete transportation container design reviews within timeliness goals.								X
Complete storage container and installation design reviews within timeliness goals.								X
Number of inspections completed.								x
Timeliness of completing actions on critical research programs.								x
Acceptable technical quality of agency research technical products.								X

## **Goals, Performance Measure, and Program Crosswalk: - Security**

	NRC Programs							
Measures	New Reactors	Reactor Licensing	Reactor Oversight	Fuel Facilities	Materials Users	HLW	Decomm & LLW	Spent Fuel
Strategic Outcomes								
No instances where licensed radioactive materials are used domestically in a manner hostile to the security of the United States.	x	x	X	x	x	X	X	X
Performance Measures								
Unrecovered losses of risk-significant radioactive sources.	x	x	X	x	x	X	x	x
Number of substantiated cases of actual theft or diversion of licensed, risk-significant radioactive sources or formula quantities of special nuclear material; or attacks that result in radiological sabotage.	x	x	x	x	x	x	x	X
Number of substantiated losses of formula quantities of special nuclear material or substantiated inventory discrepancies of formula quantities of special nuclear material that are judged to be caused by theft or diversion or by substantial breakdown of the accountability system.	x	x	x	x	x	X	x	x
Number of substantial breakdowns of physical security or material 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	x	x
Number of significant unauthorized disclosures of classified and/ or safeguards information.	x	x	X	X	x	X	x	X
Output Measures								
Complete the full cycle of force on force inspections as scheduled (all applicable facilities inspected over three year time frame).			x					

- 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 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  $\Delta$ CDP of  $\geq 1 \times 10^{-3}$ . Such events have a 1/1000 (10<sup>-3</sup>) 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 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 that if the FY 2005 performance

measure, based upon Abnormal Occurrence 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 Abnormal Occurrence 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) 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. The agency has extended the time required to complete final action on the deficiencies identified in the audit of the Incident Response Program.
- 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. The agency is taking longer to complete final action on FISMA recommendations.
- 22. Majority of these audit recommendations deal with FISMA and a specific computer-based 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, eleven recommendations involving three separate audit reports on baseline security, Nuclear Security and Incident Response and Integrative Personnel Security System respectively have taken longer for the agency to implement.
- 24. Final action on recommendations in the Financial Statements audit took 16 months to complete.
- 25. The OIG Management and Operational Support staff consists of senior managers, a general counsel, and administrative support personnel. To carry out the function of this program for FY 2009, OIG estimates its costs to be \$1.265 million, which includes salaries and benefits for eight FTE. The associated FTE and salaries and benefits estimate were equally applied between the audits and investigations programs. Contract support and travel estimates were allocated in proportion to each program's fully costed FTE.

### **EXECUTIVE SUMMARY**

Acronym	Definition
AP1000	Advanced Pressurized Reactor
AREVA	AREVA
COL	Combined Operating Licenses
DOE	Department of Energy
EPR	Evolutionary Power Reactor
ESBWR	Economic Simplified Boiling Water Reactor
FEIS	final environmental impact statement
FTE	full-time equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GE	General Electric
HLW	High-Level Waste
IAEA	International Atomic Energy Agency
NDAA	National Defense Authorization Act
NEA	Nuclear Energy Act
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
OIG	Office of the Inspector General
OMB	Office of Management and Budget
TAD	Transportation, Aging (storage) and Disposal
US APWR	U.S. Advanced Pressurized Water Reactor
WIR	Waste Incidental to Reprocessing

# PROPOSED FY 2009 APPROPRIATIONS LEGISLATION

Acronym	Definition
AEC	Atomic Energy Commission
DOE	Department of Energy
FY	Fiscal Year
NRC	U.S. Nuclear Regulatory Commission
P.L.	Public Law

#### NUCLEAR REACTOR SAFETY

Acronym	Definition
ABWR	Advanced Boiling Water Reactor
AP	Advanced Pressurized
CFR	Code of Federal Regulations
COL	Combined Operating Licenses
CY	Current Year
DOE	Department of Energy
DOJ	Department of Justice
DOL	Department of Labor
EIS	Environment Impact Statement
EPR	Evolutionary Power Reactor
ESBWR	Economic Simplified Boiling Water Reactor
ESP	Early-Site Permits
FDA	Final Design Approval
FSER	Final Safety Evaluation Report
FTE	full-time equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GEIS	Generic Environmental Impact Statement
I&C	Digital Instrumentation and Control Research
IAEA	International Atomic Energy Agency
iSTS	improved Standard Technical Specifications
MC&A	Material Control and Accountability
MPA	Multi-plant Actions
MWe	Megawatt Electric
NAS	National Academy of Sciences
NCSD	National Communications system Directive
NEA	Nuclear Energy Agency
NFPA	National Fire Protection Association
NRC	U.S. Nuclear Regulatory Commission
NUREG	NRC technical report designation
OE	Office of Enforcement
OIG	Office of the Inspector General
OLTs	Other Licensing Tasks
OMB	Office of Management and Budget
PA	Planned Activity
PART	Program Assessment Rating Tool
ROP	Reactor Oversight Program
SER	Safety Evaluation Report
SOARCA	State-of-the-Art Reactor Consequence Analyses
TIA	Task Interface Agreements
US APWR	U.S. Advanced Pressurized Water Reactor

# NUCLEAR MATERIALS AND WASTE SAFETY

Acronym	Definition
ACP	American Centrifuge Plant
AREVA	AREVA
DOE	Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FTE	full-time equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GE	General Electric
HLW	High-Level Waste
IAEA	International Atomic Energy Agency
ISA	Integrated Safety Assessment
ISFSI	Independent Spent Fuel Storage Installations
LLW	Low-Level Waste
MC&A	Material Control and Accountability
MOX	Mixed-Oxide
NARM	Naturally-occurring and Accelerator-produced Radioactive Materials
NDAA	Ronald W. Reagan National Defense Authorization Act
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
NUREG	NRC technical report designation
OE	Office of Enforcement
OIG	Office of the Inspector General
OMB	Office of Management and Budget
PART	Program Assessment Rating Tool
TAD	Transportation Aging (storage) and Disposal
WIR	Waste Incidental to Reprocessing

# PERFORMANCE MEASUREMENTS

Acronym	Definition
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
ACCESS	Access Control and Computer Enhanced Security System
ADAMS	Agencywide Documents Access and Management System
DOE	Department of Energy
FTE	Full-time Equivalent
FY	Fiscal Year
HSPD-12	Homeland Security Presidential Directive-12
IG	Inspector General
IT	Information Technology
LPDR	Local Public Document Room
MIS	Management Information System
MOX	Mixed Oxide
NRC	U.S. Nuclear Regulatory Commission
OGC	Office of General Counsel
OIG	Office of the Inspector General
OMB	Office of Management and Budget
PARS	Public Available Records System
PII	Personally Identifiable Information
POGO	Project on Government Oversight
STP	South Texas Project Nuclear Power Plant
SUNSI	Sensitive Unclassified Non-Safeguards Information
TTC	Technical Training Center
UCS	Union of Concerned Scientists
US-CERT	U.S. Computer Emergency Readiness Team

# **APPENDIX III – EXPLANATION OF THE FULL-COST BUDGET ALLOCATION**

Acronym	Definition
ADAMS	Agencywide Documents Access and Management System
COL	Combined operating License
E-GOV	Electronic Government program
DCD	Design Control Document
EHRI	Electronic Personnel Folder
FOIA	Freedom of Information Act and Privacy Act
FTE	full-time equivalents
FY	Fiscal Year
GPRA	Government Performance and Results Act
HSPD-12	Homeland Security Presidential Directive-12
IT	Information Technology
LAN	Local Area Network

# ACRONYM LIST

Acronym	Definition
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
OCCP OMB	Outreach and Compliance Coordination Program Office of Management and Budget
OPM	Office of Personnel Management
PII	Personally Identifiable Information
RIS	Regulatory Issue Summary
SUNSI	Sensitive Unclassified Non-Safeguards Information

# APPENDIX IV: VERIFICATION AND VALIDATION OF NRC'S MEASURES AND METRICS

Acronym	Definition
AO	Abnormal Occurrence
ASP	Accident Sequence Precursor Database
CFR	Code of Federal Regulations
CCDP	conditional core damage probability
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
LERSearch	Licensee Event Report Search System
NMED	Nuclear Material Events Database
NMSS	Office of Material Safety and Safeguards
NRC	U.S. Nuclear Regulatory Commission
NSTS	National Source Tracking System
ROP	Reactor Oversight Process
SCSS	Sequence Coding and Search System
SDP	Significant Determination Process

# APPENDIX V: REPORT ON DRUG TESTING

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

Acronym	Definition
ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
DOE	Department of Energy
EA	enterprise architecture
EPA	Environment Protection Agency
FISMA	Federal Information Security Management Act
FOIA	Freedom of Information Act
FTE	Full-time equivalent
FY	Fiscal Year
HLW	High-Level Waste
HR	Human Resources
IT	Information Technology
KTI	Key Technical Issues
MD	Management Directive
NRC	U.S. Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulations
OE	Office of Enforcement
OMB	Office of Management and Budget
OPM	Office of Personnel Management
PAR	Performance and Accountability Report
PART	Program Assessment Rating Tool
PM	Portfolio Management
PMM	Project Management Methodology