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# PERFORMANCE BUDGET

# FISCAL YEAR 2006

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U.S. Nuclear Regulatory Commission

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# EXECUTIVE SUMMARY

**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.*

**Vision** *Excellence in regulating the safe and secure use and management of radioactive materials for the public good.*

## Overview of the NRC Performance Budget

The Fiscal Year (FY) 2006 Performance Budget submitted by the U.S. Nuclear Regulatory Commission (NRC) supports the implementation of its Strategic Plan. The NRC's proposed FY 2006 budget is $702 million, which represents an increase of $32 million over the FY 2005 budget. This budget reflects $567 million from fees assessed to NRC licensees, resulting in a net appropriation of $135 million. The following table details the NRC's budget authority by appropriation:

**TOTAL NRC BUDGET AUTHORITY BY APPROPRIATION**
**(Dollars in Thousands)**

| NRC Appropriation | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Salaries and Expenses (S&E)** | | | | |
| Budget Authority | 618,328 | 661,750 | 693,376 | 31,626 |
| Offsetting Fees | 538,589 | 533,927 | 559,643 | 25,716 |
| Net Appropriated—S&E | 79,739 | 127,823 | 133,733 | 5,910 |
| **Office of the Inspector General (OIG)** | | | | |
| Budget Authority | 7,297 | 7,512 | 8,316 | 804 |
| Offsetting Fees | 6,713 | 6,761 | 7,485 | 724 |
| Net Appropriated—OIG | 584 | 751 | 831 | 80 |
| **Total NRC ($K)** | | | | |
| Budget Authority | 625,625 | 669,262 | 701,692 | 32,430 |
| Offsetting Fees | 545,302 | 540,688 | 567,128 | 26,440 |
| **Total Net Appropriated** | **80,323** | **128,574** | **134,564** | **5,990** |

In accordance with the requirement defined in Section 220(b) of Office of Management and Budget (OMB) Circular A-11, the NRC is providing the full cost of its programs for the FY 2006 budget

request for FY 2005 and FY 2006 resources. Full cost includes an allocation of the agency's infrastructure and support costs to specific programs.

## FY 2006 Budget Increases

The NRC's FY 2006 proposed budget of $702 million represents a net increase of approximately $32 million over the FY 2005 budget. The increases are in the following areas:

- An approximate increase of $11.8 million is to fund Federal pay raises and other nondiscretionary compensation and benefits increases.

- An approximate $17.7 million increase primarily for the Nuclear Reactor Safety program to strengthen reactor inspection activities and keep pace with licensing needs of existing nuclear reactor facilities.

  The NRC's FY 2006 budget assumes that NRC will continue to provide ongoing inspection and licensing support for the existing 104 nuclear power reactors, including license amendment and renewal activities. Of the total $17.7 million increase, $10.2 million is in the Reactor Inspection program and is primarily to improve the effectiveness of design/engineering inspections, enhance reactor security through increased inspections and oversight, update the Significance Determination Process (SDP) Notebooks to reflect external initiating events, and fund infrastructure and support cost allocation. The remaining resource increase of $7.5 million is in the Reactor Licensing program and is primarily to reduce the backlog of research and test reactor license renewals, reduce the backlog of the licensing action inventory, review two standard reactor design certification applications, conduct research to obtain fission product data representative of accidents in spent fuel pools, support initiatives for nuclear safety cooperation with India and Pakistan, and fund infrastructure and support cost allocation.

- An increase of $2.5 million to conduct the NRC's new responsibilities for oversight of certain Department of Energy (DOE) waste incidental to reprocessing.

## Summary by Major Programs

The FY 2006 Performance Budget is organized into two major program areas: Nuclear Reactor Safety and Nuclear Materials and Waste Safety. To facilitate budget review along NRC's core business lines, these programs are further divided into seven activities, which are displayed in the following table.

## EXECUTIVE SUMMARY

| SUMMARY OF BUDGET AUTHORITY BY MAJOR PROGRAMS (Dollars in Thousands) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | FY 2004 Enacted* | | FY 2005 Enacted Full Cost | | FY 2006 Full Cost | | Change From FY 2005 | |
| **Summary** | **$** | **FTE** | **$** | **FTE** | **$** | **FTE** | **$** | **FTE** |
| **Budget Authority by Major Programs** | | | | | | | | |
| Nuclear Reactor Licensing | 198,694 | 883 | 263,257 | 1,128 | 274,885 | 1,140 | 11,628 | 12 |
| Nuclear Reactor Inspection | 107,419 | 802 | 179,798 | 1,013 | 194,263 | 1,034 | 14,465 | 21 |
| **Subtotal Nuclear Reactor** | **306,113** | **1,685** | **443,055** | **2,141** | **469,148** | **2,174** | **26,093** | **33** |
| Fuel Facility Licensing and Inspection | 21,674 | 143 | 38,542 | 200 | 36,587 | 186 | -1,955 | -14 |
| Nuclear Materials Users Licensing and Inspection | 45,343 | 278 | 63,637 | 330 | 65,928 | 319 | 2,291 | -11 |
| High-Level Waste Repository | 32,905 | 77 | 68,498 | 163 | 69,050 | 164 | 552 | 1 |
| Decommissioning and Low-Level Waste | 19,448 | 86 | 24,081 | 112 | 28,097 | 127 | 4,016 | 15 |
| Spent Fuel Storage and Transportation Licensing and Inspection | 19,680 | 105 | 23,937 | 115 | 24,566 | 116 | 629 | 1 |
| **Subtotal Nuclear Materials and Waste Safety** | **139,050** | **689** | **218,695** | **920** | **224,228** | **912** | **5,533** | **-8** |
| Infrastructure and Support | 173,165 | 619 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Subtotal** | **618,328** | **2,993** | **661,750** | **3,061** | **693,376** | **3,086** | **31,626** | **25** |
| Inspector General | 7,297 | 47 | 7,512 | 47 | 8,316 | 49 | 804 | 2 |
| **Total** | **625,625** | **3,040** | **669,262** | **3,108** | **701,692** | **3,135** | **32,430** | **27** |
| Reimbursable FTE | | 18 | | 22 | | 19 | | -3 |
| **Total** | **625,625** | **3,058** | **669,262** | **3,130** | **701,692** | **3,154** | **32,430** | **24** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

Highlights of major FY 2006 activities for each of NRC's programs follows. Additional details including output measures and FY 2004 accomplishments are provided in Chapters 3 and 4. Chapter 5 provides a description of NRC's performance measures. Chapter 6 presents the budget for the Office of the Inspector General. Homeland Security resources are included within the programs they support, and a cross-cut is provided in Appendix II.

## *Nuclear Reactor Safety Program*

### *Nuclear Reactor Licensing*

The NRC's FY 2006 budget includes $274.9 million for reactor licensing activities associated with the existing 104 nuclear power reactors and 35 research and test reactors, and for regulating the design, construction, and operation of new commercial nuclear power facilities. During FY 2006, the NRC's activities to support existing licensees will include the review of complex licensing actions, such as conversion actions for improved Standard Technical Specifications (iSTS); power uprates; license transfers; quality assurance; efforts to address the development, maintenance, and improvement of thermal-hydraulics, fuel behavior, severe accident, and neutronic codes used in a wide range of regulatory activities; and efforts to reduce the backlog of research and test reactor license renewals. For new reactors, the NRC will complete the milestones necessary to issue the AP1000 standard design certification rulemaking in FY 2006. Additionally, the NRC will conduct its review of two design certification applications, and will conduct pre-application review activities for other reactor designs. The NRC will also continue its efforts to develop and update the agency's regulatory structure to accommodate new reactor designs. In FY 2006, the NRC will also conduct international activities that encompass international nuclear policy formulation, treaty implementation, nuclear proliferation deterrence, international safety and safeguards assistance, and cooperative nuclear safety research assistance. Activities include participation in a wide range of mutually beneficial international information exchange programs and meetings focused on formulating international nuclear regulatory policy and developing approaches for the safe and secure use of nuclear facilities and material for peaceful purposes. Finally, the NRC will continue to enhance and maintain security through safeguards and security licensing reviews and threat assessment.

### *Nuclear Reactor Inspection*

In FY 2006, approximately $194.3 million is requested for the Reactor Inspection program. This funding will support the activities needed to ensure that the 104 licensed reactors identify and resolve safety and security issues before the issues affect safe plant operation. In FY 2006, the NRC will continue to strengthen reactor oversight activities to provide early identification and management of potential safety issues. These activities will include risk-informed inspections, use of performance indicator data, and the reactor assessment process. The inspection process has three major elements: baseline inspections, plant-specific supplemental and reactive inspections, and generic issue inspections that address areas of emerging concern or areas requiring increased emphasis because of recurring problems. Enforcement is used to deter noncompliance with NRC requirements and to encourage prompt identification and correction of violations of NRC requirements. The assessment process integrates inspection findings with other objective measures of performance (performance indicators), which licensees submit on a quarterly basis for each power reactor site. The NRC will

continue to enhance and maintain reactor security through inspections and oversight to confirm the adequacy of nuclear reactor security in the current threat environment.

***Nuclear Materials and Waste Safety Program***

***Fuel Facilities Licensing and Inspection***

In FY 2006, approximately $36.6 million is requested for the fuel facilities licensing and inspection activities. This funding will support continued regulatory oversight and inspection of the licensed fuel cycle facilities, including 18 nuclear fuel fabrication facilities, 14 uranium recovery facilities, 2 gaseous diffusion enrichment facilities, and 1 pilot gas centrifuge facility; continued review of 2 license applications for gas centrifuge facilities and a license application for a mixed-oxide fuel fabrication facility; and a research program to identify, lead, and/or sponsor reviews that support the resolution of ongoing and future safety issues associated with fuel cycle and mixed-oxide fuel fabrication facilities.

***Nuclear Materials Users Licensing and Inspection***

In FY 2006, approximately $65.9 million is requested to support licensing and inspection of approximately 4,400 nuclear materials licensees, provide for the development and implementation of a national registry of radioactive sources of concern and improve control of radioactive materials to prevent their potential use in radioactive dispersal devices, and provide for reviews and issuance of NRC import/export authorizations. The resources also support Agreement State and Liaison materials activities in the State and Tribal program, and support a nuclear materials research program to ensure that licensees safely use NRC-regulated nuclear materials and to risk-inform regulatory activities in the materials area.

***High-Level Waste Repository***

The NRC's FY 2006 budget includes approximately $69.1 million to support high-level waste activities, including a license application review, hearings, and inspection and performance confirmation oversight activities, reflecting DOE's anticipated license application in December 2005; and the Package Performance Study, which will assess the safety of spent nuclear fuel shipping containers under realistic transportation accident conditions by testing a full-scale rail cask.

***Decommissioning and Low-Level Waste***

In FY 2006, approximately $28.1 million is requested to support licensing and inspection activities at 20 decommissioning power reactors and approximately 40 complex materials and fuel facilities sites, including related environmental reviews; conduct research to provide data and models for assessing public exposure to releases of radioactive materials and to provide the technical basis for

decommissioning rulemakings and for controlling the disposition of solid materials; and support low-level waste licensing activities, such as on-site disposal, and interaction with the Department of Energy and the States on issues concerning low-level waste disposal. The NRC's FY 2006 budget for Decommissioning and Low-Level Waste includes $2.5 million to provide oversight of certain DOE radioactive waste incidental to reprocessing consistent with the NRC's new responsibilities in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

***Spent Fuel Storage and Transportation Licensing and Inspection***

In FY 2006, approximately $24.6 million is requested to support regulatory oversight, including licensing and inspection for spent fuel storage and radioactive material transportation; address emergent technical issues, such as moderator exclusion; undertake rulemaking changes to maintain the comparability of NRC, U.S. Department of Transportation, and International Atomic Energy Agency transport regulations; and conduct research to develop and demonstrate probabilistic risk assessment methods for dry cask storage and transportation, address storage of high burnup fuels, and develop the technical basis and criteria for the seismic design of independent spent fuel storage installations.

**Financing NRC's Budget**

The Omnibus Budget Reconciliation Act of 1990 requires the NRC to collect fees from its licensees for approximately 90 percent of its FY 2005 budget, less appropriations from the Nuclear Waste Fund. The 90 percent fee recovery requirement will revert to 33 percent in FY 2006, absent legislative action.

In accordance with the Omnibus Reconciliation Act of 1990, as amended, the NRC's proposed FY 2006 budget is based on 90 percent fee recovery less appropriations from the Nuclear Waste Fund. In addition, funds appropriated to implement section 3116 of the Ronald W. Reagan National Defense Authorization Act of Fiscal Year 2005 are excluded from NRC's fee recovery requirements. The NRC requests that the FY 2006 budget be financed as follows: $567 million from user fees, $66 million from the General Fund, and $69 million from the Nuclear Waste Fund.

**NRC FINANCING**
**(Dollars in Thousands)**

| | FY 2004 | FY 2005 | FY 2006 |
|---|---|---|---|
| Budget Authority | 625,625 | 669,262 | 701,692 |
| Offsetting Fees | 545,302 | 540,688 | 567,128 |
| Net Appropriated | | | |
| Nuclear Waste Fund | 32,905 | 68,498 | 69,050 |
| General Fund (Off Fee Base) | 47,418 | 60,076 | 65,514 |
| Total Net Appropriated | 80,323 | 128,574 | 134,564 |

## PROPOSED FY 2006 APPROPRIATIONS LEGISLATION

The NRC's proposed appropriations legislation for FY 2006 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 $15,000) and purchase of promotional items for use in the recruitment of individuals for employment, $693,376,000, to remain available until expended: Provided, that of the amount appropriated herein, $69,050,000 shall be derived from the Nuclear Waste Fund: Provided further, that revenues from licensing fees, inspection services, and other services and collections estimated at $559,643,400 in fiscal year 2006 shall be retained and used for necessary salaries and expenses in this account, notwithstanding 31 U.S.C. 3302, and shall remain available until expended: Provided further, that the sum herein appropriated shall be reduced by the amount of revenues received during fiscal year 2006 so as to result in a final fiscal year 2006 appropriation estimated at not more than $133,732,600.

### 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, $8,316,000 to remain available until expended: Provided, that revenues from licensing fees, inspection services, and other services and collections estimated at $7,485,000 in fiscal year 2006 shall be retained and be used for necessary salaries and expenses in this account, notwithstanding 31 U.S.C. 3302, and shall remain available until expended; Provided further, that the sum herein appropriated shall be reduced by the amount of revenues received during fiscal year 2006 so as to result in a final fiscal year 2006 appropriation estimated at not more than $831,000.

## PROPOSED FY 2006 APPROPRIATIONS LEGISLATION

### Analysis of Proposed FY 2006 Appropriations Legislation

The analysis of the NRC's proposed appropriations legislation for FY 2006 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 therefor. Congress has appropriated funds for official representation expenses to the NRC and its predecessor, the Atomic Energy Commission, each year since FY 1950.

3. INCLUDING PURCHASE OF PROMOTIONAL ITEMS FOR USE IN THE RECRUITMENT OF INDIVIDUALS FOR EMPLOYMENT:

   B-247563.3, April 5, 1996

   This language is required because 31 U.S.C. 1301(a) provides that appropriated funds are available only for authorized purposes. Specific statutory authority is required for purchasing items of nominal value that can be given to attract potential employees as part of the NRC's recruitment effort.

4. 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.

5. 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 license 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 siting process, culminating in the requirement for NRC licensing as a prerequisite to construction and operation of the repository.

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

6. 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. 2213, the NRC is required to assess and collect annual charges from NRC licensees and certificate holders, except for the holders of any license for a Federally owned research reactor used primarily for educational training and academic research purposes. The NRC is proposing legislation to amend 42 U.S.C. 2213 to require that the aggregate amount of such charges for FY 2006 approximate 90 percent of the Commission's budget authority, less any amount appropriated to the Commission from the Nuclear Waste Fund and funds appropriated to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, P.L. 108-375, assigns new responsibilities to NRC for waste determinations and monitoring of waste disposal actions for material stored at Department of Energy sites in South Carolina and Idaho. Section 3116(b)(4) requires that, beginning with the FY 2006 budget, the Commission include in its budget justification materials submitted to Congress the amounts required, not offset by revenues, for performance of its responsibilities under Section 3116. The $2,500,000 requested to implement Section 3116 is excluded from NRC's fee recovery requirements.

The aggregate amount of license fees and annual charges to be collected for FY 2006 approximates 90 percent of the Commission's budget authority, less the amount requested to be derived from the Nuclear Waste Fund and the amount requested to implement Section 3116 of P.L. 108-375.

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.

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

Pursuant to 42 U.S.C. 2213, 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. The NRC is proposing legislation to amend 42 U.S.C. 2213 to require that the aggregate amount of such charges for FY 2006 approximate 90 percent of the Commission's budget authority, less any amount appropriated to the Commission from the Nuclear Waste Fund and funds appropriated to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

Inspector General

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

Public Law 95-452, 5 U.S.C. app., as amended by Public Law 100-504

Public Law 100-504 amended Public Law 95-452 to establish the 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.

9. 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.

10. 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. 2213, the NRC is required to assess and collect annual charges from NRC licensees and certificate holders, except for the holders of any license for a Federally owned research reactor used primarily for educational training and academic research purposes. The NRC is proposing legislation to amend 42 U.S.C. 2213 to require that the aggregate amount of such charges for FY 2006 approximate 90 percent of the Commission's budget authority, less any amount appropriated to the Commission from the Nuclear Waste Fund and funds appropriated to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

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

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

Pursuant to 42 U.S.C. 2213, the NRC is required to assess and collect annual charges from NRC licensees and certificate holders, except for the holders of any license for a Federally owned research reactor used primarily for educational training and academic research purposes. The NRC is proposing legislation to amend 42 U.S.C. 2213 to require that the aggregate amount of such charges for FY 2006 approximate 90 percent of the Commission's budget authority, less any amount appropriated to the Commission from the Nuclear Waste Fund and funds appropriated to implement Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

## NUCLEAR REACTOR SAFETY

The Nuclear Reactor Safety Program area encompasses all NRC efforts to ensure that civilian nuclear power reactor facilities, and research and test reactors are licensed and operated in a manner that adequately protects the environment and the health and safety of the public and protects 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 regulating the Nation's civilian nuclear power industry. These efforts include reactor licensing (including power uprates and license transfers, operator licensing, regulation development, operating experience evaluation, and financial assurance); reactor license renewal; new reactor licensing; reactor inspection and performance assessment (including emergency response, reactor technical and regulatory training, imposition of enforcement sanctions for violations of NRC requirements, and investigation of alleged wrongdoing by licensees, applicants, contractors, or vendors); reactor regulatory research; Homeland Security efforts (including threat assessment, emergency response, mitigating strategies, security inspections and force-on-force exercises); and international efforts to enhance domestic and global nuclear safety.

### Budget Overview

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Major Program ($K)** | | | | |
| Program Salaries and Benefits | 202,352 | 214,921 | 224,474 | 9,553 |
| Program Contract Support and Travel | 103,761 | 99,479 | 104,202 | 4,723 |
| Subtotal Program | 306,113 | 314,400 | 328,676 | 14,276 |
| Infrastructure and Support Salaries and Benefits | 0 | 52,085 | 55,184 | 3,099 |
| Infrastructure and Support Contract Support and Travel | 0 | 76,570 | 85,288 | 8,718 |
| Subtotal Infrastructure and Support Allocation | 0 | 128,655 | 140,472 | 11,817 |
| **Total Budget Authority** | **306,113** | **443,055** | **469,148** | **26,093** |
| Program FTE | 1,685 | 1,700 | 1,722 | 22 |
| Infrastructure and Support FTE | 0 | 441 | 452 | 11 |
| **Total FTE** | **1,685** | **2,141** | **2,174** | **33** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

The full cost budget request of $469.1 million and 2,174 FTE for the Nuclear Reactor Safety program area supports the regulatory oversight of 104 civilian nuclear power reactors that are currently licensed to operate. Although program activities are being conducted more efficiently, resources increase in FY 2006 by $26.1 million primarily to address major programmatic efforts in reactor licensing, including new reactor licensing and reactor inspection.

- $12.7 million of the increase is associated with the Government-wide FY 2006 pay raise, other increases in salaries and benefits, and 33 additional FTE primarily to support reactor licensing and reactor inspection activities.

- $13.4 million of the increase is in contract support and travel, primarily to review two design certification applications, improve the effectiveness of design/engineering inspections, reduce the backlog of research and test reactor license renewals, conduct cooperative research with France to obtain fission product data representative of accidents in spent fuel pools, support initiatives for nuclear safety cooperation with India and Pakistan, and update the Significance Determination Process (SDP) Notebooks to reflect external initiating events.

## BUDGET AUTHORITY AND FULL-TIME EQUIVALENT BY PROGRAM

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Reactor Licensing | 198,694 | 263,257 | 274,885 | 11,628 |
| Reactor Inspection | 107,419 | 179,798 | 194,263 | 14,465 |
| **Total Budget Authority** | **306,113** | **443,055** | **469,148** | **26,093** |
| **Full-Time Equivalent Employment by Program** | | | | |
| Reactor Licensing | 883 | 1,128 | 1,140 | 12 |
| Reactor Inspection | 802 | 1,013 | 1,034 | 21 |
| **Total FTE** | **1,685** | **2,141** | **2,174** | **33** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

## Justification of Program Requests

The Nuclear Reactor Safety major program area is discussed in the following pages.

## *Nuclear Reactor Licensing*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Resources | 198,694 | 195,956 | 201,784 | 5,828 |
| Infrastructure and Support | 0 | 67,301 | 73,101 | 5,800 |
| **Total Budget Authority** | **198,694** | **263,257** | **274,885** | **11,628** |
| Program FTE | 883 | 893 | 900 | 7 |
| Infrastructure and Support FTE | 0 | 235 | 240 | 5 |
| **Total FTE** | **883** | **1,128** | **1,140** | **12** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* The NRC is responsible for overseeing the licenses of 104 nuclear power reactors and 35 research and test reactors, and regulating the design, construction, and operation of new commercial nuclear power facilities. This includes reviewing new reactor design certifications, early site permits, and operating licenses for commercial power facilities. Further, the NRC is responsible for developing regulations to govern the safe operation of nuclear facilities and ensuring adequate protection of workers, the public, and the environment.

The NRC will address lessons learned from the Davis-Besse Lesson Learned Task Force (LLTF) by implementing the recommendation to integrate safety and security, emergency preparedness, and use of international and domestic operating experience into the agency's normal activities. Further, in FY 2006, the agency will complete 1,500 licensing actions to amend existing licenses (including approximately ten requests to increase the power generating capacity of specific reactors) and 500 other licensing tasks to address issues that do not require a license amendment. Activities include legal advice and representation with respect to these reactor licensing actions. The NRC will screen and evaluate approximately 1,000 reports on events that occur at power reactors each year. The NRC will work on approximately 12–14 active rulemakings and issue three proposed rules and three final rules per year for governing the safe operation of reactors, including rules to increase the effectiveness of regulations and move the agency towards a more risk-informed and/or performance-based regulation. In addition, the NRC will oversee the operation of 35 research and test reactors and their associated 300 reactor operators to ensure continued safety.

The NRC conducts reactor safety research to support its mission of ensuring that its licensees safely design, construct, and operate civilian nuclear reactor facilities. The NRC's research programs will respond to high-priority needs on or before their due date 85 percent of the time. The NRC will work on probabilistic risk analyses and applications, and on research activities to support risk-

informing the agency's regulations, technical standards, and oversight practices. These efforts may involve changes to various agency procedures and documents, regulatory guides, and standard review plans. Assessing and maintaining reactor and system codes will include development of experimental data to assess computer codes used in the safety analyses of reactor facilities in the areas of thermal-hydraulics, fuel behavior, severe accidents, and neutronics. The NRC continues to conduct a systematic assessment of potential generic issues and addresses their resolution under the Generic Issues Program. The NRC's research includes assessment of the adequacy of licensing acceptance criteria for high burnup fuel. Some of these activities involve international cooperative efforts. For example, cooperative work is being conducted with France to (1) develop the technical bases to develop acceptance criteria for high burnup fuel during postulated reactivity insertion accidents, and (2) obtain fission product release data representative of severe accidents in an air environment. Other activities in support of reactor safety research include but are not limited to addressing aging-related effects on systems and components; safety assessment of digital technologies; regulatory infrastructure improvement initiatives; assessment of current health effects models; developing mixed-oxide (MOX)-specific data and models that can be used for MOX fuel licensing; and bench-marking the NRC MELCOR (an integrated severe accident analysis code) code and the industry Modular Accident Analysis Program (MAAP) code to help facilitate review of licensee submissions which reference the MAAP.

In response to renewed interest in building nuclear power reactors, the NRC will conduct pre-licensing and licensing reviews in a manner that is generally consistent with projected industry plans and schedules. The NRC will conduct technical reviews and mandatory hearings associated with three early site permit applications received in calendar year 2003. The NRC will issue the AP1000 standard design certification rulemaking in FY 2006. Additionally, the NRC will conduct its review of two design certification applications, and will conduct pre-application review activities for other reactor designs. The NRC will also continue its efforts to develop and update the agency's regulatory structure to accommodate new reactor designs. These efforts will include the development of regulatory guidance; development of the NRC's construction inspection program; and development of analytical tools, experimental data, and bases for regulatory guidance documents to support review of new reactor designs. In addition, a draft technology-neutral regulatory framework document will be developed to support review of new reactor designs.

As a part of the NRC's responsibility to oversee the licenses of the 104 nuclear power reactors, the agency 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. Resource estimates are based on the number and timing of applications and a 22-month cycle (30 months, if a hearing is associated with the review) for completion of each application after receipt. Non-standard license renewal applications are completed within the schedule agreed upon with the applicant. As of November 2004, the Commission has renewed the operating licenses for 30 of the existing 104 nuclear power reactors. In FY 2006, the NRC expects to begin reviewing six new renewal applications and expects to complete the reviews of four applications. Activities include reviewing the applications and supporting documentation from licensees, conducting independent evaluations

of the safety and environmental issues associated with extended reactor operation, and conducting inspections to verify information in the application and the licensees' activities to manage reactor aging.

The NRC will also conduct international activities that encompass international nuclear policy formulation, treaty implementation, nuclear proliferation deterrence, international safety and safeguards assistance and cooperative nuclear safety research assistance. Activities include participation in a wide range of mutually beneficial international information exchange programs and meetings focused on international nuclear regulatory policy formulation and developing approaches for the safe and secure use of nuclear material for peaceful purposes. In addition, the NRC will participate in activities to enhance domestic and global nuclear safety, both bilaterally and through multilateral organizations such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA), as well as supporting initiatives for nuclear safety cooperation with India and Pakistan.

*(2) Security:* The NRC will continue to enhance, where appropriate, security through safeguards and security licensing reviews, and threat assessments. Activities include physical protection reviews, coordination with the intelligence and law enforcement communities regarding threats to licensed facilities, coordination with the Department of Homeland Security and other Federal and State agencies to integrate response planning, the implementation of revisions that include the Design Basis Threat (DBT) into security plans, technical support for rulemaking, development of regulatory guidance, completion of vulnerability assessments and implementation of appropriate mitigation strategies, and the resolution of policy and technical issues related to nuclear security and safeguards at reactor facilities.

*Change from FY 2005.* Resources increase primarily to support the review of two design certification applications, reduce the backlog of research and test reactor license renewals, conduct cooperative research with France to obtain fission product data representative of accidents in spent fuel pools, and to support initiatives for nuclear safety cooperation with India and Pakistan.

*Program Assessment Rating Tool (PART).* The NRC is scheduled to conduct a review of the Reactor Licensing program in FY 2005 for budget year 2007.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

## NUCLEAR REACTOR SAFETY

| Output Measure: Licensing actions completed per year. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete 1,500 licensing actions. | Complete 1,500 licensing actions. | Complete 1,500 licensing actions, including conversions to improved Standard Technical Specifications. | Complete 1,500 licensing actions, including conversions to improved Standard Technical Specifications. | Complete 1,500 licensing actions, including conversions to improved Standard Technical Specifications. | Complete 1,500 licensing actions, including conversions to improved Standard Technical Specifications. |
| *Actual:* | 1,617 completed | 1,560 completed | 1,774 completed | 1,741 completed | | |

| Output Measure: Age of power uprate inventory. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Measurement Uncertainty Recapture Power (MUR) Uprate (≤ 2%) 100% ≤ 6 months. Stretch Power Uprates (≤ 7%) 100% ≤ 9 months. Extended Power Uprates (> 7%) 100% ≤ 12 months. | MUR Power Uprate (≤ 2%**) 100% ≤ 6 months. Stretch Power Uprates (≤ 7%) 100% ≤ 9 months. Extended Power Uprates (> 7%) 100% ≤ 12 months. | MUR Power Uprate (≤ 2%**) 100% ≤ 6 months. Stretch Power Uprates (≤ 7%**) 100% ≤ 9 months. Extended Power Uprates (> 7%) 100% ≤ 12 months. | MUR Power Uprate (≤ 2%**) 100% ≤ 6 months. Stretch Power Uprates (≤ 7%) 100% ≤ 9 months. Extended Power Uprates (> 7%) 100% ≤ 12 months. |
| *Actual:* | N/A | N/A | MUR 33% ≤ 6 months Stretch 100% ≤ 9 months. | MUR 100% ≤ 6 months Stretch 100% ≤ 9 months. | | |

| Output Measure: Size of licensing action inventory. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005**** | **FY 2006** |
| *Target:* | ≤ 900 | ≤ 1,000 | < 1,000 | < 1,000 | < 1,200 | < 1,000 |
| *Actual:* | 877 | 765 | 1,296 | 1,135* | | |

*Target was not achieved as a result of the redirection of resources to higher priority security work including review of security plans, safeguards contingency plans, and training and qualification plans.
**Target increases to reflect licensing actions deferred in FY 2004 to focus on large volume of high-priority security licensing actions.

## NUCLEAR REACTOR SAFETY

| Output Measure: Age of licensing action inventory, except for license renewal and iSTS conversions. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005**** | **FY 2006** |
| *Target:* | 95% ≤ 1 year<br>100% ≤ 2 years | 96% ≤ 1 year<br>100% ≤ 2 years | 96% ≤ 1 year<br>100% ≤ 2 years | 96% ≤ 1 year<br>100% ≤ 2 years | 90% ≤ 1 year<br>100% ≤ 2 years | 96% ≤ 1 year<br>100% ≤ 2 years |
| *Actual:* | 96.9% ≤ 1 year<br>99.9% ≤ 2 years | 96.5% ≤ 1 year<br>100% ≤ 2 years | 96.3% ≤ 1 year<br>100% ≤ 2 years | 91.0% ≤ 1 year*<br>100% ≤ 2 years | | |

*Target was not achieved as a result of the redirection of resources to higher priority security work including review of security plans, safeguards contingency plans, and training and qualification plans.
**Target decreases to reflect licensing actions deferred in FY 2004 to focus on large volume of high-priority security licensing actions. Inventory will be managed to ensure that appropriate timeliness goals are established for each action, and that safety-significant issues are addressed.

| Output Measure: Other licensing tasks completed per year. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete 675 other licensing tasks. | Complete 550 other licensing tasks. | Complete 350 other licensing tasks. | Complete 350 other licensing tasks. | Complete 500 other licensing tasks. | Complete 500 other licensing tasks. |
| *Actual:* | 523 | 426 | 500 | 671 | | |

| Output Measure: Timeliness of completing actions on critical research programs. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | 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. | 85% of major milestones met on or before their due date. |
| *Actual:* | N/A | 91% across programs. | 80% across programs.* | 90% across programs. | | |

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

| Output Measure: Review early site permit applications on the schedules negotiated with the applicants. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Begin review of 2 applications. | Begin review of 1 application. Issue requests for additional information (RAIs) for 3 applications. | Issue draft safety evaluation report (SER) and draft environmental impact statement (EIS) for 3 applications. Issue final SER and final EIS for 2 applications. | Issue final SER and final EIS for 1 application. |
| *Actual:* | N/A | N/A | Began review of 2 applications. | Began review of 1 application. Issued RAIs for 3 applications. | | |

| Output Measure: Review design certification applications on the schedules negotiated with the applicants. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Issue draft Safety Evaluation Report (SER) for AP1000. | Issue the final SER for AP1000 design certification review. | Begin review of the ESBWR design certification applications. Complete milestones necessary to complete AP1000 design certification rulemaking in FY 2006. | Complete milestones necessary to complete two design certification reviews. Complete the AP1000 design certification rulemaking. |
| *Actual:* | N/A | N/A | Issued draft SER for AP1000. | Issued final SER for AP1000. | | |

| Output Measure: Conduct pre-application activities on the schedules negotiated with the prospective applicants. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Conduct pre-application activities for 6 reactor designs (ACR-700, ESBWR, GT-MHR, SWR 1000, IRIS, and PBMR). | Conduct pre-application activities for 4 reactor designs (ACR-700, ESBWR, IRIS, and PBMR). | Conduct pre-application activities for 3 reactor designs. | Conduct pre-application activities for 2 reactor designs. |
| *Actual:* | N/A | N/A | Conducted pre-application activities for 6 reactor designs. | Conducted pre-application activities for 4 reactor designs. | | |

| Output Measure: Complete regulatory infrastructure improvements needed to ensure new facilities are safely constructed and to improve the efficiency and effectiveness of new reactor licensing. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Construction inspection program - issue inspection manual chapter (IMC) for early site permits (ESPs).<br>- Rulemaking - conduct technical resolution activities for issues such as Alternate Site Review Part 51, Tables S3 and S4, and Part 50, Appendix 1.<br>- Issue ESP Review Standard for public comment. | Construction inspection program - complete inspection guidance for early site permits; issue construction inspection program (CIP) framework document for comment. Issue final ESP Review Standard. | Issue Inspection Manual Chapters for combined license; inspections, tests, analyses and acceptance criteria (ITAAC); and non-ITAAC inspections. Issue draft technology-neutral regulatory framework document. | Issue draft regulatory guidance for combined license applications; and begin to issue high-priority construction inspection procedures. |
| *Actual:* | N/A | N/A | Issued ESP Review Standard for public comment. Issued IMC for ESPs. Deferred rulemaking activities to FY 2007. | Completed inspection guidance for ESPs. Issued CIP framework document. Issued final ESP Review Standard. | | |

## NUCLEAR REACTOR SAFETY

| Output Measure: Completion of license renewal application reviews. Complete major milestones in accordance with the Commission-approved schedules in order to support completion of license renewal applications within 30 months from receipt of the application to a Commission decision if a hearing is conducted (22 months without a hearing). Complete all non-standard license renewal application reviews within the schedule agreed upon with the applicant. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | No applications scheduled. | Complete major milestones for 2 applications. | Complete major milestones for 3 applications. | Complete major milestones for 6 applications. | Complete major milestones for 4 applications. | Complete major milestones for 3 applications. |
| *Actual:* | Milestones completed for 1 application. | Milestones completed for 2 applications. | Milestones completed for 3 applications. | Milestones completed for 6 applications. | | |

| 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 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Negotiate/renew 3-6 arrangements. | Negotiate/renew 3–6 arrangements. | Negotiate/renew 3–6 arrangements. | Negotiate/renew 3–6 arrangements. | Negotiate/renew 3–6 arrangements. | Negotiate/renew 3–6 arrangements. |
| *Actual:* | Completed 4 arrangements. | Completed 8 arrangements. | Completed 8 arrangements. | Completed 5 arrangements. | | |

| Output Measure: Reviews of Executive Branch proposed Part 810 licenses. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. |
| *Actual:* | Completed 11 staff reviews; 100% were completed within 60 days. | Completed 10 staff reviews; 100% were completed within 60 days. | Completed 2 staff reviews; 100% were completed within 60 days. | Completed 7 staff reviews; 100% were completed within 60 days. | | |

## NUCLEAR REACTOR SAFETY

*FY 2004 Significant Accomplishments*

*Reactor License Renewal*

Met or exceeded all milestones for review of license renewal applications. Specifically, the agency issued renewed licenses for St. Lucie Units 1 and 2, Fort Calhoun, Catawba Units 1 and 2, McGuire Units 1 and 2, Robinson, Summer, and Ginna. As of November 2004, eight additional renewal applications (encompassing 16 reactors at nine sites) are under review. The license renewal environmental program met or exceeded all milestones for review of renewal applications. Specifically, the NRC prepared and issued draft supplemental environmental impact statements (SEISs) for the Farley, Dresden, and Quad Cities reactors. The NRC also published final SEISs for the Dresden, Quad Cities, Robinson, Summer, and Ginna reactors. As many as 12 environmental impact statements were under development at a given time while the NRC staff maintained quality and met all scheduled commitments. Increasing public confidence and public outreach was integral to the NRC's license renewal program.

*New Reactor Licensing*

Issued the final safety evaluation and final design approval of the Westinghouse AP1000 design certification application. After completion of design certification rulemaking (currently planned for December 2005), the design can be referenced in individual license applications. The NRC has three early site permit (ESP) applications under review for the North Anna, Clinton, and Grand Gulf sites. Issuance of an ESP provides early resolution of siting issues before substantial investment of resources by an applicant. Certified designs and early site permits (ESP) can be relied upon by the Commission, the Advisory Committee on Reactor Safeguards, and hearing board, in their reviews of individual license applications. In reviewing applications for combined licenses or operating licenses, the Commission must treat, as resolved, those matters resolved in connection with issuing the design certification or ESP.

*Power Uprates*

Approved power uprates for three nuclear power reactors (one stretch power uprate and one measurement uncertainty power uprate). These power uprates would result in a combined increase of an additional 135 MWt or 45 MWe to the Nation's electric generating capacity. The NRC developed a review standard for extended power uprates to improve the effectiveness and efficiency of power uprate review. Based on recent surveys of licensees, the NRC expects licensees to request power uprates for approximately 18 reactors over the next five fiscal years. This has the potential of adding approximately 950 MWe to the Nation's electric generating capacity, equivalent to the generating capacity of one nuclear power plant.

## NUCLEAR REACTOR SAFETY

*Homeland Security*

Initiated unprecedented review of power reactors' security plans which incorporate the Design Basis Threat. Security Plan templates for physical security, the training and qualification plan, and contingency plans were coordinated with industry and provided to licensees.

*Reactor Rulemaking*

Issued a revision to 10 CFR 50.48, "Fire Protection." This revised rule provides a performance-based, risk-informed alternative to NRC's existing reactor fire protection requirements through the adoption of the industry consensus standard NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants." The rule provides nuclear power plant licensees with the flexibility to adopt the technical approaches, methodologies, and engineering analyses specified in NFPA-805 as an alternative to the more prescriptive fire protection requirements in 10 CFR 50.48 and may reduce unnecessary regulatory burden on licensees choosing this alternative.

Issued the revision to 10 CFR 50.33, "Content of Applications, general information." This revised rule streamlines the license renewal process by relieving applicants from the unnecessary resource burden of producing financial qualifications information as part of their renewal applications and by eliminating the need for NRC staff to review that information. The NRC does not believe that there are any financial circumstances uniquely associated with license renewal that warrant a separate financial review. A new requirement was also included that electric utility licensees of nuclear power reactors who become non-electric utility entities without a license transfer must notify the NRC and submit information on their financial qualifications. These changes increase regulatory clarity and strengthen the NRC's ability to protect public health and safety.

Issued a revision to 10 CFR 50.75, "Decommissioning Trust Fund Provisions," to ensure that licensees maintain adequate funds to cover the cost of decommissioning their nuclear power reactors by imposing investment restrictions, withdrawal restrictions, and notice requirements on those funds.

*Reactor Safety Research*

Completed assessment of the potential vulnerability of two commercial nuclear power plants to terrorist threats involving aircraft and the benefits and costs of possible mitigation strategies. The results of the assessment have been used to support regulatory decisions for the plant types studied, shape emergency response exercises at plants and with other government agencies, inform Federal decisionmaking on homeland security, and guide the subsequent assessment of other specific plants. In addition, the NRC supported the National Academies of Science (NAS) study on the safety and security of commercial spent fuel pool storage and also developed supplementary guidance for licensees to address mitigation options that might be considered to enhance spent fuel storage safety and security.

## NUCLEAR REACTOR SAFETY

To ensure that emergency core cooling systems operate properly during potential accident scenarios, the NRC studied the performance of pressurized water reactor (PWR) sumps and the availability of water sources for emergency core cooling following a loss-of-coolant accident (LOCA). Thermodynamic simulations of certain chemicals and metals were also conducted to gain information on potential chemical reactions. This information was used in determining the effectiveness of post-LOCA coolant recirculation systems. In addition, the NRC sponsored an international workshop on PWR sump performance for experts to share experience and discuss plant modifications that will ensure safe operation of PWR plants around the world. This work provided the basis for regulatory actions that are currently being taken.

The reactor vessel head corrosion identified at the Davis-Besse Nuclear Power Station in 2002 is one of the most significant findings at a U.S. plant in the last 25 years. To understand the safety impact of the reactor vessel head corrosion at Davis-Besse fully, the NRC conducted analyses and testing to evaluate the capacity of the degraded reactor vessel head to withstand the pressure loading during operations. The evaluation indicated that, at the time of shutdown, the pressure capacity of the Davis-Besse reactor vessel head still exceeded the normal operating pressure by a factor of 1.2 to 1.5 and was also greater than the pressures at which the relief valves would have opened. The evaluation further indicated that the reactor pressure vessel could have continued to operate safely until the originally planned shutdown, approximately a month and a half beyond the actual shutdown.

## *Nuclear Reactor Inspection*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Resources | 107,419 | 118,444 | 126,892 | 8,448 |
| Infrastructure and Support | 0 | 61,354 | 67,371 | 6,017 |
| **Total Budget Authority** | **107,419** | **179,798** | **194,263** | **14,465** |
| Program FTE | 802 | 807 | 822 | 15 |
| Infrastructure and Support FTE | 0 | 206 | 212 | 6 |
| **Total FTE** | **802** | **1,013** | **1,034** | **21** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* The NRC will ensure that the licensees of 104 nuclear power reactors and 35 research and test reactors identify and resolve safety issues before they affect safe plant operation. This program's key elements are Reactor Inspection and Assessment Program Oversight and Management, which include risk-informed baseline inspections, enforcement activities and programs, mid-cycle and end-of-cycle performance reviews, and the continued improvement of the Significance Determination Process (SDP) Notebooks. The inspection process has three major elements: baseline inspections that focus on licensee performance in specific functional areas and licensee effectiveness in identifying, resolving, and preventing problems; plant-specific supplemental and reactive inspections in response to inspection findings and operational events and inspections such as for the reactivation of Browns Ferry Unit 1; and generic safety issue inspections that address areas of emerging concern or areas requiring increased emphasis because of recurring problems. The NRC will also respond to allegations of safety, safeguard, and/or discrimination violations. In addition, NRC will administer three generic reactor operator fundamental examination sessions per year and 50 site-specific operator licensing examination sessions per year.

The NRC will continue to support agency implementation of the regulatory oversight process through various technology and regulatory skills training courses, as identified by offices and regions in the annual needs surveys. A key component of this is the reactor simulation information technology infrastructure and the continued maintenance and replacement of aging computers used in these programs.

*(2) Security:* The NRC will also work to ensure event response readiness by working closely with other Federal agencies to maintain a highly effective Federal incident response capability for

operational events and terrorist events under the existing Federal Response Plan (FRP), the Federal Radiological Emergency Response Plan (FRERP), and the National Contingency Plan (NCP) and to implement the new National Response Plan and National Incident Management System. This work also includes activities associated with emergency preparedness aspects of the Reactor Inspection Program. In addition, the NRC will work to enhance the incident response program, including outreach and stakeholder communications, consistent program implementation, and improved responder training and qualification.

The NRC will support Homeland Security activities to enhance and maintain reactor security through inspections and oversight to confirm the adequacy of nuclear reactor security in the current threat environment. Activities will include program development and maintenance, Material Control & Accountability inspections, baseline security inspections, and force-on-force (FOF) exercises at each nuclear power plant on a three year cycle instead of the eight year cycle that the agency used prior to the terrorist attacks on September 11, 2001 to assess security system performance.

*Change from FY 2005.* Resource increases are primarily to support improving the effectiveness of design/engineering inspections; enhancing reactor security through increased inspections and oversight; enhancing force-on-force table top exercises; and updating the Significance Determination Process (SDP) Notebooks to reflect external initiating events.

*Program Assessment Rating Tool (PART).* OMB rated this program as effective with an overall score of 89 in the FY 2005 budget process, noting that the purpose was clear and that the program was well-designed and results-oriented. In addition, the program has achieved its long-term strategic goal to prevent radiation- related deaths and illnesses, promote the common defense and security, and protect the environment in the use of civilian nuclear reactors.

OMB's recommendations included (1) better linkage of budget requests to accomplishing annual and agency long-term goals and (2) more transparency in how resource allocation decisions are made and how safety indicator goals and program goals contributed to the agency's long-term goals.

## NUCLEAR REACTOR SAFETY

The following table provides NRC's response to the OMB recommendations:

| Recommendation | Completion Date | On Track (Y/N) | Comments on Status |
|---|---|---|---|
| 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 agency long-term goals | July 2004 | Y | Demonstrated this through the issuance of the agency's FY 2004-FY 2009 Strategic Plan.<br><br>The FY 2006 Performance Plan includes additional measures that more closely tie the outcomes of the Reactor Inspection and Performance Assessment program to the Safety strategic goal. NRC staff will continue to evaluate performance measures in the office operating plans and the Reactor Oversight Process periodic self-assessment and revise them as necessary to support these new Safety Performance Measures. |
| **Next Milestone** | **Next Milestone Date** | **Lead Organization** | **Lead Official** |
| Complete evaluation of performance measures in the office operating plans and the Reactor Oversight Process periodic self-assessment and revise them as necessary to support these new Safety Performance Measures. | April 2005 | Office of Nuclear Reactor Regulation | Chief, Inspection Program Branch |
| **Recommendation** | **Completion Date** | **On Track (Y/N)** | **Comments on Status** |
| 2) More transparency is needed in 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 demonstrate better the contributions of program activities and resources to outputs. | July 2004 | Y | Demonstrated this through the issuance of the agency's FY 2004-FY 2009 Strategic Plan.<br><br>Move to the implementation of costing to NRC's two primary goals in the FY 2004-FY 2009 Strategic Plan (Safety and Security) beginning with the FY 2006 request. In addition, NRC has demonstrated this through utilization of the common prioritization process for establishing the linkage between operational activities, including the resources allocated to support these activities, and the agency's strategic and long-term goals. |
| **Next Milestone** | **Next Milestone Date** | **Lead Organization** | **Lead Official** |
| Complete NRC review of operating plan format and content to improve their effectiveness as management tools. | July 2005 | Office of the Executive Director for Operations | Assistant for Operations, Office of the Executive Director for Operations |

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

## NUCLEAR REACTOR SAFETY

| Output Measure: Number of plants for which the baseline inspection program is completed during the most recently ended inspection cycle.* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | All required baseline inspection procedures are completed at 103 operating reactors. | All required baseline inspection procedures are completed at 103 operating reactors. | All required baseline inspection procedures are completed at 103 operating reactors. | All required baseline inspection procedures are completed at 103 operating reactors. | All required baseline inspection procedures are completed at 103 operating reactors. | All required baseline inspection procedures are completed at 103 operating reactors. |
| *Actual:* | Completed at all reactors. | Completed at all reactors. | Completed at all reactors. | Completed at all reactors. | | |
| *Does not include Brown's Ferry Unit 1, which is currently not operating and not being inspected under the full baseline inspection program. The ROP inspection program is implemented on a calendar year basis. The most recent inspection cycle ended on December 2004. | | | | | | |

| Output Measure: Midcycle performance review and end-of-cycle performance review; annual assessment letter and annual agency action review meeting. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Conduct 103 midcycle reviews and 103 end-of-cycle reviews. | Conduct 103 mid-cycle reviews and 103 end-of-cycle reviews. Issue annual assessment letter and conduct annual meeting with licensee at site. | Conduct 103 mid-cycle reviews and 103 end-of-cycle reviews. Issue annual assessment letter and conduct annual meeting with licensee at site. | Conduct 103 mid-cycle reviews and 103 end-of-cycle reviews. Issue annual assessment letter and conduct annual meeting with licensee at site. | Conduct 103 mid-cycle reviews and 103 end-of-cycle reviews. Issue annual assessment letter and conduct annual meeting with licensee at site. | Conduct 103 mid-cycle reviews and 103 end-of-cycle reviews. Issue annual assessment letter and conduct annual meeting with licensee at site. |
| *Actual:* | Conducted 103 midcycle reviews 11/00. Conducted 103 end-of-cycle reviews 5/01. Letter and meeting 6/01. | Conducted 103 end-of-cycle reviews 2/02. Letters and annual meeting 4/02. Conducted 103 midcycle reviews 8/02. | Conducted 103 end-of-cycle reviews 3/03. Letters and annual meeting 3/03. Conducted 103 midcycle reviews 8/03. | Conducted 103 end-of-cycle reviews 4/04. Letters and annual meeting 4/04. Conducted 103 mid-cycle reviews 8/04. | | |

| Output Measure: Timeliness of Significance Determination Process (SDP) evaluations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 100% complete within 90 days of inspection report issue date. | 100% complete within 90 days of inspection report issue date. | 75% complete within 90 days of inspection report issue date.* | 80% complete within 90 days of inspection report issue date. | 85% complete within 90 days of inspection report issue date. | 90% complete within 90 days of inspection report issue date. |
| *Actual:* | 70% findings completed within 90 days (27 findings). | 57% findings completed within 90 days (27 findings). | 73.3% findings completed within 90 days (15 findings). | 48.3% findings completed within 90 days (29 findings).* | | |
| *This metric reflects the fact that the total number of greater-than-green SDP results increased 100% (from 15 to 29) since FY 2003 due to a higher closure rate of old items. About 2/3 of the 15 untimely items in FY 2004 were greater than 365 days old. The increased closure rate is a result of increased management attention. The average age of open items dropped from 301 days as of September 30, 2003, to 238 day on September 30, 2004. | | | | | | |

| Output Measure: Number of operator licensing examinations administered. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Meet licensee demand at 50 initial operator licensing examination sessions and 3 generic fundamentals examination sessions. | Meet licensee demand 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 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 3 generic fundamentals examination sessions. |
| *Actual:* | Met licensee demand at 58 initial operator licensing examination sessions and 3 generic fundamentals exam sessions. | Met licensee demand at 51 initial operator licensing examination sessions and 3 generic fundamentals exam sessions. | Met licensee demand at 61 initial operator licensing examination sessions and 3 generic fundamentals exam sessions. | Met licensee demand at 45 initial operator licensing examination sessions* and 4 generic fundamentals exam sessions. | | |
| * NRC was short of the target of 50 initial operator licensing examination sessions administered for FY 2004 due to 11 exams that were rescheduled into FY 2005 at the licensees' requests. | | | | | | |

| Output Measure: Numbers and types of reactor technical training courses offered. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Numbers and types of courses offered will meet 90% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. |
| *Actual:* | Needs met 100% | Needs met 100% | Needs met 100% | Needs met 100% | | |

| Output Measure: Timeliness in completing enforcement actions. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 90% ≤ 90 days (average) | Investigation cases: 100% completed within 360 days of NRC processing time. Noninvestigation cases: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of NRC processing time. Noninvestigation cases: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of OE processing time. Noninvestigation cases: 100% completed within 180 calendar days of OE processing time. | Investigation cases: 100% completed within 360 days of OE processing time. Noninvestigation cases: 100% completed within 180 calendar days of OE processing time. | Investigation cases: 100% completed within 360 days of OE processing time. Noninvestigati on cases: 100% completed within 180 calendar days of OE processing time. |
| *Actual:* | 90% in 76 days (average) 24 cases | Investigation: None≥360 days. Non-investigation: none ≥180 days. | Investigation: None≥360 days. Non-investigation: none ≥180 days. | Investigation: None≥360 days. Non-investigation: none ≥180 days. | | |

| Output Measure: Timeliness in completing reviews for technical Allegations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 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 | 70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days |
| *Actual:* | N/A | N/A | (4th quarter): 87% ≤150 days 98% ≤ 180 days 100% ≤ 360 days | 90% ≤150 days 97% ≤ 180 days 99% ≤ 360 days* | | |
| * One allegation exceeded the target due to extended review at another Federal Agency. | | | | | | |

| Output Measure: Quality in completing investigations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | To achieve and maintain a percentage of cases which are brought to a conclusion as either substantiated or unsubstantiated at 75% or more. | To achieve and maintain a percentage of cases which are brought to a conclusion as either substantiated or unsubstantiated at 75% or more. | Target: 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. * | Target: 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. | Target: 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. | Target: 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. |
| *Actual:* | Completed 123 cases: 93% (115) were brought to a conclusion as either substantiated or unsubstantiated. | Completed 101 cases: 97% (98) were brought to a conclusion as either substantiated or unsubstantiated. | Completed 121 cases: 95% (115) were brought to a conclusion on the merits as either substantiated or unsubstantiated. | Completed 124 cases: 97.6% (121) were brought to a conclusion on the merits as either substantiated or unsubstantiated. | | |
| *Statistical data in FY 2002 supported the need for a change in this output measure target. | | | | | | |

| Output Measure: Timeliness in completing investigations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete cases ≤ 9 months (average) Active inventory ≤ 9%. | Complete cases, on average, in 9 months or less. Maintain the average number of cases within the active case inventory for more than 12 months at 9% or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less.* | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. |
| *Actual:* | Completed 131 cases in 7.3 months (average). | Completed 98 cases: 84% of cases closed on the merits as either substantiated or unsubstantiated were completed in 10 months or less. | Completed 94 cases: 83% of cases closed on the merits as either substantiated or unsubstantiated were completed in 10 months or less. | Completed 121 cases: 80.2% (97) of cases closed on the merits as either substantiated or unsubstantiated were completed in 10 months or less. | | |
| *Statistical data in FY 2002 supported the need for a change in this output measure target. | | | | | | |

| Output Measure: Incident Response Performance Index Measures.* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 99% | 99% | 99% | 99% | 99% | 99% |
| *Actual:* | 100% | 100% | 100% | 100% | | |
| *A performance index has been established to provide a single overall performance measure which will assess the degree to which the agency believes it is ready to respond to a nuclear or terrorist emergency situation. The index measures the disparate activities that make up the Incident Response Program. The index is determined by averaging the degree to which the program functions, i.e., 24-hour notification point, response organization staffing, response facility availability, communication reliability (including coordination activities with stakeholders), and response organization training meet a performance goal of 99 percent. All of the Incident Response Program performance measures are aligned with one of the program functions to determine how each of the program functions meets the established goal. If the index indicates that any measure is not being met, NSIR management will initiate appropriate corrective measures. | | | | | | |

## NUCLEAR REACTOR SAFETY

*FY 2004 Significant Accomplishments*

During FY 2004, the NRC staff initiated a pilot program to improve the ability of the Reactor Oversight Process (ROP) to identify significant design issues at commercial nuclear power plants through the development of a new inspection procedure. This program responds to lessons learned from past inspections and events, and is intended to provide a more focused inspection of engineering activities, thereby improving the effectiveness of the current engineering inspections. The pilot program for the new inspection procedure will continue into FY 2005, after which the results will be evaluated for full implementation into the ROP.

In early FY 2004, the staff completed a one-year pilot of the ROP Mitigating Systems Performance Index (MSPI). The MSPI is intended to provide a better measure of the risk of safety system unavailability and unreliability than the Safety System Unavailability (SSU) performance indicators it would replace. Following the completion of the MSPI pilot, the staff identified several technical MSPI issues that needed to be resolved prior to implementation. Subsequently, these issues have been addressed, and the staff has decided to move forward with MSPI implementation. Currently, NRC staff and the industry are working together to address implementation issues for the MSPI. A current tentative target date for full implementation is set for January 2006.

To continue to improve the ROP during FY 2004, the NRC staff issued several substantial improvements to the Significance Determination Process for determining the significance of inspection findings related to containment performance, fire protection, shutdown safety, steam generator tube integrity, and primary coolant boundary leakage. In addition, the staff issued several inspection program improvement changes to resolve Davis-Besse Lessons Learned Task Force recommendations and issued the Construction Inspection Program Framework Document to guide further development of this new program to prepare for new nuclear plant construction, if and when such construction should occur.

During FY 2004, the Commission directed the staff to enhance the NRC's ability to assess the safety culture of operating power reactor licensees. The Commission directed the staff to continue to monitor industry efforts to assess safety culture and ensure that the Commission remains informed of industry efforts and progress. The staff was also directed to continue to monitor developments by foreign regulators in the area of safety culture. Further, the Commission directed the staff to enhance the ROP treatment of cross-cutting issues to address safety culture more fully and to allow for more agency action as the result of the identification of a cross-cutting issue. The staff will develop training for inspectors on this methodology.

The NRC staff maintained readiness to respond to incidents of all kinds, including nuclear power plant and other nuclear materials and continuity of operations capability. The NRC enhanced response facilities, including upgrades to the Headquarters Operations Center and the Continuity of Operations (COOP) site. Additionally, the NRC demonstrated proficiency by successfully

responding to actual events in the recent past. For example, the NRC's effective response in close coordination with Federal Emergency Management Agency (FEMA) and other Federal and state jurisdictions ensured continued safe operation of nuclear power plants in the areas affected by Hurricane Isabel and other severe weather-related events. During the events, our incident response capability assured that information was timely and available to relevant stakeholders. Further, the NRC developed and implemented the Reactor Security Baseline Inspection Program. This program inspects reactor safeguards and security to determine their adequacy in the current threat environment.

The NRC successfully completed pilot Force-on-Force (FOF) exercises at 15 sites using expanded adversary characteristics that were developed as a result of the increased post-9/11 threat. FOF exercises were made more realistic through initiatives, including the use of Multi-Integrated Laser Engagement System (MILES) requirement and improved adversary and controller training. The transitional FOF Program was initiated with 11 FOF exercises completed this year.

The NRC staff participated in full-participation emergency exercises that included staff from Department of Homeland Security (DHS), Congress, and North American Aerospace Defense Command (NORAD). The Commission augmented emergency exercises by developing and implementing NRC tabletop initiatives. The NRC staff continued coordination and communications with Federal partners, including DHS and the Homeland Security Council. For example, NRC contributed significantly to, and coordinated closely with, DHS on the development of the National Response Plan.

## NUCLEAR MATERIALS AND WASTE SAFETY

The 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 major program area. Activities within this area include the regulatory oversight of (1) nuclear fuel cycle facilities, (2) nuclear materials activities, (3) the storage and disposal of high-level waste (HLW), (4) the decommissioning of nuclear reactors and other facilities and low-level waste management, and (5) the transportation of radioactive materials and the interim storage of spent nuclear fuel both at and away from reactor sites. In FY 2006, the NRC and 34 Agreement States will regulate more than 20,000 specific and 150,000 general licensees. Licenses are issued for uranium extraction, conversion, and enrichment facilities; nuclear fuel fabrication facilities; fuel research and pilot facilities, and large and small users of nuclear material for industrial, medical, or academic purposes, such as radiographers, hospitals, private physicians, nuclear gauge users, and universities. With respect to the storage and disposal of HLW, the NRC is responsible for licensing decisions and regulatory oversight, the U.S. Environmental Protection Agency (EPA) is responsible for developing standards (which the NRC is required to implement), and the U.S. Department of Energy (DOE) is responsible for characterizing the potential site at Yucca Mountain in the State of Nevada and for developing and operating the repository if a license is granted. FY 2006 resources will provide for reviewing a license application from DOE for a high-level waste repository and conducting associated hearings. As part of its FY 2006 decommissioning activities, the NRC will conduct licensing and inspection activities at 20 decommissioning power reactors, and 40 complex materials and fuel facility sites. Regarding transportation of radioactive materials and the interim storage of spent nuclear fuel, the NRC's oversight responsibilities include maintaining the operational safety of spent fuel in storage, preparing for dry storage at operating and decommissioning reactors, and certifying containers used to transport radioactive materials.

## Budget Overview

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Major Program ($K)** | | | | |
| Program Salaries and Benefits | 82,147 | 95,570 | 98,823 | 3,253 |
| Program Contract Support and Travel | 56,903 | 68,835 | 67,850 | -985 |
| Subtotal Program | 139,050 | 164,405 | 166,673 | 2,268 |
| Infrastructure and Support Salaries and Benefits | 0 | 21,857 | 22,475 | 618 |
| Infrastructure and Support Contract Support and Travel | 0 | 32,433 | 35,080 | 2,647 |
| Subtotal Infrastructure and Support Allocation | 0 | 54,290 | 57,555 | 3,265 |
| **Total Budget Authority** | **139,050** | **218,695** | **224,228** | **5,533** |
| Program FTE | 689 | 735 | 728 | -7 |
| Infrastructure and Support FTE | 0 | 185 | 184 | -1 |
| **Total FTE** | **689** | **920** | **912** | **-8** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

The full cost budget request for the Nuclear Materials and Waste Safety major program is $224.2 million, including 912 FTE. This is an increase of $5.5 million to fund major programmatic efforts including a decrease of 8 FTE.

- $3.9 million of the increase is associated with the Government-wide FY 2006 pay raise, and other nondiscretionary compensation and benefit increases, partially offset by a reduction of 8 FTE.

- Included in the overall increase is $1.5 million for contract support and travel, and $1 million for salaries and benefits, to provide oversight of certain DOE radioactive waste incidental to reprocessing consistent with the NRC's new responsibilities in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

- An offsetting decrease of $1.0 million in contract support and travel is primarily due to a reduced workload resulting from certain completed licensing actions in the Fuel Facilities Licensing and Inspection program.

## BUDGET AUTHORITY AND FULL-TIME EQUIVALENT BY PROGRAM

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Fuel Facilities Licensing and Inspection | 21,674 | 38,542 | 36,587 | -1,955 |
| Nuclear Materials Users Licensing and Inspection | 45,343 | 63,637 | 65,928 | 2,291 |
| High-Level Waste Repository | 32,905 | 68,498 | 69,050 | 552 |
| Decommissioning and Low-Level Waste | 19,448 | 24,081 | 28,097 | 4,016 |
| Spent Fuel Storage and Transportation Licensing and Inspection | 19,680 | 23,937 | 24,566 | 629 |
| **Total Budget Authority** | **139,050** | **218,695** | **224,228** | **5,533** |
| **Full-Time Equivalent Employment by Program** | | | | |
| Fuel Facilities Licensing and Inspection | 143 | 200 | 186 | -14 |
| Nuclear Materials Users Licensing and Inspection | 278 | 330 | 319 | -11 |
| High-Level Waste Repository | 77 | 163 | 164 | 1 |
| Decommissioning and Low-Level Waste | 86 | 112 | 127 | 15 |
| Spent Fuel Storage and Transporation Licensing and Inspection | 105 | 115 | 116 | 1 |
| **Total FTE** | **689** | **920** | **912** | **-8** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

## Justification of Program Requests

The Nuclear Materials and Waste Safety major program area consists of five programs as discussed in the following pages.

## *Fuel Facilities Licensing and Inspection*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Resources | 21,674 | 26,392 | 24,140 | -2,252 |
| Infrastructure and Support | 0 | 12,150 | 12,447 | 297 |
| **Total Budget Authority** | **21,674** | **38,542** | **36,587** | **-1,955** |
| Program FTE | 143 | 159 | 146 | -13 |
| Infrastructure and Support FTE | 0 | 41 | 40 | -1 |
| **Total FTE** | **143** | **200** | **186** | **-14** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* Resources are provided to conduct the NRC's regulatory programs at fuel cycle facilities and to support related research. The regulated facilities include 35 fuel cycle facilities (18 nuclear fuel fabrication facilities, 14 uranium recovery facilities, 2 gaseous diffusion enrichment facilities, and 1 pilot gas centrifuge facility). Additionally, the NRC will be reviewing applications for a mixed-oxide (MOX) fuel fabrication facility and two new gas centrifuge facilities. Activities include implementation of a safety, safeguards, and security inspection program based on the risk significance of licensee operations and the facility performance history. Approximately five licensee performance reviews will be conducted per year. Resources are also provided for uranium recovery licensing activities and for adjudicatory hearings on enrichment facilities, uranium recovery, and MOX fuel fabrication. Activities include legal advice and counsel for individual licensing actions, including enrichment facilities; major license amendments for major fuel cycle facilities; and risk-informing the Commission's regulatory framework for materials licensing and regulatory oversight. Research activities include support for the review of an application for a MOX fuel fabrication facility.

*(2) Security:* Resources provide for homeland security activities to conduct physical protection and material control and accounting (MC&A) reviews of NRC-licensed fuel facilities; implement security enhancements, as necessary; conduct the baseline inspection program for physical protection, MC&A, and force-on-force exercises at Category I fuel facilities; 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.

*Change from FY 2005.* Programmatic resource decreases reflect a reduction in major license amendments, the anticipation of no license renewal applications, the projected completion of the

environmental impact statements and enrichment licensing and certification reviews for two gas centrifuge facilities, and a reduction in the workload for homeland security safeguards licensing activities. These decreases are partially offset by increases for homeland security regulatory improvements and an increase in MOX fuel fabrication inspection activities.

*Program Assessment Rating Tool (PART).* OMB rated this program as effective with an overall score of 89 in FY 2003 (Budget Year 2005). The program earned high scores for Program Purpose and Design and for Program Management. OMB noted that the purpose was clear and the program well-designed and results-oriented. Also noted was that this program has met all of its strategic goal measures since Government Performance and Results Act reporting began in 1997.

OMB's recommendations included (1) better linkage of budget requests to accomplishing annual and long-term goals and (2) more transparency in how allocation decisions are made and how the program contributes to achievement of the agency's long-term goals.

The following table provides NRC's response to OMB's recommendations:

| Recommendation | Completion Date | On Track (Y/N) | Comments on Status |
|---|---|---|---|
| (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. | July 2004 | Y | The NRC has done so through its initiative to define program outcomes and outputs that align with performance measures. Additionally, the NRC is working to improve its cost management capabilities to better align its costs with outcomes. |
| **Next Milestone** | **Next Milestone Date** | **Lead Organization** | **Lead Official** |
| Complete evaluation of performance measures in the organization's operating plan and revise them as necessary to support the safety performance measures in the NRC's FY 2004-FY 2009 Strategic Plan. | April 2005 | Office of Nuclear Materials Safety and Safeguards | Chief, Fuel Cycle Facilities Branch |

| Recommendation | Completion Date | On Track (Y/N) | Comments on Status |
|---|---|---|---|
| (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. | July 2004 | Y | Demonstrated through the issuance of the agencys FY 2004 - FY 2009 Strategic Plan.<br><br>Move to the implementation of costing to the NRC's 2 primary goals in the FY 2004 - FY 2009 Strategic Plan (safety and security) beginning with the FY 2006 request. In addition, the NRC has demonstrated better linkage of budget requests to agency goals through utilization of the common prioritization process for establishing the linkage between operational activities, including the resources allocated to support these activities, and the agency's strategic and long-term goals. The NRC's Fuel Cycle Licensing and Inspection program managers have responded to the OMB recommendation by linking operational activities and the agency's strategic and long-term goals in the revised operating plans. |
| **Next Milestone** | **Next Milestone Date** | **Lead Organization** | **Lead Official** |
| Complete the NRC's review of operating plan format and content to improve their effectiveness as management tools. | July 2005 | Office of the Executive Director for Operations | Assistant for Operations, Office of the Executive Director for Operations |

In addition, OMB has suggested conducting 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 Licensing and Inspection program. NRC has demonstrated compliance with this recommendation through plans to continue to use information from Office of Inspector General 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. Starting in FY 2005, licensees regulated under the Fuel Cycle Licensing and Inspection program will provide integrated safety analyses (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 NRC's regulation and oversight of the facilities.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

## NUCLEAR MATERIALS AND WASTE SAFETY

| Output Measure: 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) | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 75% ≤ 180 days<br>100% ≤ 3 years | 75% ≤ 180 days<br>100% ≤ 2 years | 75% ≤ 180 days<br>100% ≤ 2 years | 75% ≤ 180 days<br>100% ≤ 2 years | 75% ≤ 180 days<br>100% ≤ 2 years | 75% ≤ 180 days<br>100% ≤ 2 years |
| *Actual:* | 94% ≤ 180 days | 88% ≤ 180 days<br>100% ≤ 2 years | 89% ≤ 180 days,<br>100% ≤ 2 years | 90%≤ 180 days,<br>100% ≤ 2 years | | |
| *Output measure modified in FY 2002 to exclude licensing actions involved in a hearing. | | | | | | |

| Output Measure: Timeliness of safety and safeguards inspections<br>Target: Complete core inspections as scheduled in Fuel Cycle Master Inspection Plan on time. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | <10% overdue | < 10% overdue | < 10% overdue | < 10% overdue | < 10% overdue | < 10% overdue |
| *Actual:* | < 1% overdue (completed 144 inspections) | 0% overdue (completed 139 inspections) | 0% overdue (completed 117 inspections) | 5% overdue (completed 86 inspections) | | |

| Output Measure: Significant precursors to criticality (i.e., an event that is significant enough to warrant a criticality safety reactive inspection) | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | < 4 per year | < 4 per year | < 4 per year |
| *Actual:* | N/A | N/A | N/A | 1 event | | |

| Output Measure: Timeliness in completing enforcement actions | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | N/A | N/A | Investigation cases: 100% completed within 360 days of Office of Enforcement (OE) processing time. 100% will average 180 days of OE processing time.<br><br>Noninvestigation cases: Traditional enforcement: 100% completed within 180 calendar days. 100% completed, on average, within 120 calendar days of OE processing time. |
| *Actual:* | N/A | N/A | N/A | N/A | N/A | |

*FY 2004 Significant Accomplishments*

NRC completed review of the license application from the United States Enrichment Corporation for a commercial gas centrifuge lead cascade test and demonstration facility. Issued the related environmental assessment and safety evaluation report in January and February 2004, respectively.

NRC issued a license to the United States Enrichment Corporation for the lead cascade facility. Also issued the draft environmental impact statement (DEIS) for the Louisiana Energy Services' (LES) gas centrifuge uranium enrichment facility. Completed an acceptance review of LES' environmental report; issued the EIS Notice of Intent; and completed the EIS Scoping and Environmental Justice review.

NRC issued a report to Congress covering the 5-year period of October 1, 1998, to September 30, 2003, on the status of health, safety, and environmental conditions at the two gaseous diffusion plants (GDPs), as required by Section 1701 of the Atomic Energy Act of 1954, as amended. Following the submission of this report, the NRC renewed the certificate of compliance for each GDP for a period of 5 years.

## *Nuclear Materials Users Licensing and Inspection*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Support | 45,343 | 43,450 | 45,201 | 1,751 |
| Infrastructure and Support | 0 | 20,187 | 20,727 | 540 |
| **Total Budget Authority** | **45,343** | **63,637** | **65,928** | **2,291** |
| Program FTE | 278 | 261 | 252 | -9 |
| Infrastructure and Support FTE | 0 | 69 | 67 | -2 |
| **Total FTE** | **278** | **330** | **319** | **-11** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* Activities will include licensing, inspection, event evaluation, research, incident response, allegation activities, and rulemaking activities necessary to maintain the regulatory infrastructure needed for processing and handling nuclear materials. Approximately 3,350 materials licensing actions and 1,150 routine health and safety inspections are expected to be completed in FY 2006. The NRC has developed a more streamlined approach to the materials inspection program that saved resources by implementing a more risk-informed set of inspection priorities and inspection procedures, focusing those resources more precisely on the types of facilities and licensee activities that were most critical to maintaining safe operation. These efficiencies are reflected in the FY 2006 budget request. The NRC will continue to work on approximately 20–25 active materials and waste rulemakings per year and will issue 8–10 final rules per year. The NRC will conduct Agreement States and Liaison materials activities in the State and Tribal Program, including oversight, technical assistance, regulatory development, and cooperative efforts and liaison with all States, local governments, Indian Tribes, and interstate organizations in all matters relating to nuclear materials and waste safety. Resources provide for information technology and information management supporting the program, such as materials license tracking systems. In addition, resources are provided to complete reviews for and issue NRC import/export authorizations, to develop international safeguards policy and implement IAEA safeguards, to conduct materials-related wrongdoing investigations, to support adjudicatory hearings for materials licensing and enforcement proceedings, and to provide technical training.

*(2) Security:* Activities will include homeland security inspections, the implementation and oversight of mitigating strategies for vulnerabilities, and regulatory improvements to strengthen controls for the possession, handling, import, and export of nuclear materials. Resources are provided for developing and implementing a national registry of radioactive sources of concern that will improve controls on risk-significant radioactive materials to prevent their malevolent use. In addition,

resources are provided for conducting NRC's Agreement States and Liaison materials activities regarding enhanced security actions for materials licensees, as well as cooperative efforts and liaison with all States, local governments, Indian Tribes, and interstate organizations in matters relating to homeland security for nuclear waste and materials.

*Change from FY 2005.* Programmatic resources increase primarily to develop and implement a national registry of radioactive sources of concern. Other increases will address materials incident response and security inspections; restore historic funding levels for the Conference of Radiation Control Program Directors; fund the triennial meeting with governor-appointed State Liaison Officers; and fund maintenance and operation of, and improvement to, materials-related information management technologies, such as license tracking systems. These increases are somewhat offset by a reduction in program staff, reflecting the assumption that Minnesota will become an Agreement State at the end of FY 2005.

*Program Assessment Rating Tool (PART).* This review was conducted in FY 2004 for Budget Year 2006. OMB rated this program as effective with an overall score of 93. In response to OMB's findings, the NRC will (1) provide with the FY 2007 Budget a clearer demonstration of the contributions of specific program activities to agency goals; (2) create program goals that will support the mission of the agency; and (3) schedule an evaluation of the program consistent with guidance in OMB Circular A-11 prior to the submission of the FY 2007 Budget. This last action will entail discussion with OIG regarding the feasibility of having them conduct independent evaluations as required in PART assessments.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

| Output Measure: Timeliness of review of applications for new materials licenses and license amendments* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 80% ≤ 90 days<br>100% ≤ 1 year | 85% ≤ 90 days<br>100% ≤ 1 year | 85% ≤ 90 days<br>100% ≤ 1 year | 85% ≤ 90 days<br>100% ≤ 1 year | 85% ≤ 90 days<br>100% ≤ 1 year | 85% ≤ 90 days<br>100% ≤ 1 year |
| *Actual:* | 94% ≤ 90 days<br>(3226 of 3417)<br>99.7% ≤ 1 year | 97% ≤ 90 days<br>(3210 of 3301)<br>99.8% ≤ 1 year<br>(3,294 of 3301) | 97% ≤ 90 days<br>(3318 of 3416)<br>99.8% ≤ 1 year<br>(3,409 of 3,416) | 97% ≤90 days<br>(2644 of 2711)<br>99.9% ≤ 1 year<br>(2,709 of 2,711) | | |
| *Output measure modified in FY 2004 to clarify that licensing actions involved in a hearing are excluded. | | | | | | |

| Output: Timeliness of reviews of applications for materials license renewals and sealed source and device designs | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 80% ≤ 180 days<br>100% ≤ 2 years | 85% ≤ 180 days<br>100% ≤ 2 years | 85% ≤ 180 days<br>100% ≤ 2 years | 85% ≤ 180 days<br>100% ≤ 2 years | 85% ≤ 180 days<br>100% ≤ 2 years | 85% ≤ 180 days<br>100% ≤ 2 years |
| *Actual:* | 98% ≤ 180 days<br>(731 of 748)<br>100% ≤ 2 years<br>(748 of 748) | 96% ≤ 180 days<br>(679 of 708)<br>100% ≤ 2 years<br>(708 of 708) | 97% ≤ 180 days<br>(797 of 820)<br>100% ≤ 2 years<br>(820 of 820) | 98% ≤ 180 days<br>(663 of 678)<br>99.9% ≤ 2 years<br>(677 of 678) | | |

| Output Measure: Timeliness of safety inspections of materials licensees | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | < 10% overdue | < 10% overdue | < 10% overdue | < 10% overdue | < 10% overdue | < 10% overdue |
| *Actual:* | 1% overdue (completed approx. 1,000) | 1% overdue (completed approx. 650) | <1% overdue (completed approx. 650) | <1% overdue (completed 1,275*) | | |

*Prior to FY 2004, only core inspections were counted. Core inspections used to represent the highest inspection priorities (1-2-3). However, with revised Inspection Manual Chapter (IMC) 2800, that distinction no longer applies, so the count now represents all materials inspections.

| Output Measure: The Nuclear Materials Events Database (NMED), which contains information about nuclear materials events reported to the NRC by NRC licensees and Agreement States, will be maintained by entering materials event information in a timely manner. Materials event information from morning reports, event notifications, and preliminary notifications of occurrences will be entered into NMED and updated within the identified time frame. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 90% entered ≤ 2 working days<br>90% updated ≤ 2 weeks | 90% entered ≤ 2 working days<br>90% updated ≤ 2 weeks | 90% entered ≤ 2 working days<br>90% updated ≤ 2 weeks | 95% entered ≤ 2 working days<br>90% updated ≤ 2 weeks | 95% entered ≤ 2 working days<br>90% updated ≤ 2 weeks | 95% entered ≤ 2 working days<br>90% updated ≤ 2 weeks |
| *Actual:* | 99% ≤ 2 days<br>(496 of 501)<br>75% ≤ 2 weeks<br>(741 of 987) | 100% ≤ 2 days<br>(556 of 556)<br>98% ≤ 2 weeks<br>(1,639 of 1,664) | 98% ≤ 2 days<br>(493 of 497)<br>97% ≤ 2 weeks<br>(2,241 of 2,307) | 100% ≤ 2 days<br>(355 of 355)<br>99% ≤ 2 weeks<br>(2,768 of 2,802) | | |

| Output Measure: Timeliness in completing enforcement actions | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 90% of materials enforcement cases will average 90 days or less. | Investigation cases: (1) 100% completed within 360 days of NRC processing time (2,3)<br><br>Noninvestigation cases: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of NRC processing time.<br><br>Noninvestigation cases: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of OE processing time (4).<br><br>Noninvestigation cases: Traditional enforcement: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of NRC processing time. 100% will average 180 days of NRC processing time.<br><br>Noninvestigation cases: Traditional enforcement: 100% completed within 180 calendar days. | Investigation cases: 100% completed within 360 days of NRC processing time.<br><br>Non investigation cases: Traditional enforcement: 100% completed within 180 calendar days. |
| *Actual:* | 100% of materials cases (59 cases) were completed in an average of 68.1 days. | Investigation cases: none ≥360 days;<br><br>Noninvestigation cases: none ≥180 days; | Investigation cases: none ≥360 days;<br><br>Noninvestigation cases: none ≥180 days; | Investigation cases: none ≥360 days;<br><br>Noninvestigation cases: none ≥180 days; | | |

| Output Measure: Timeliness in completing reviews for technical allegations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 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 | 70% ≤ 150 days 90% ≤ 180 days 100% ≤ 360 days |
| *Actual:* | N/A | N/A | (4th quarter): 87% ≤150 days 98% ≤ 180 days 100% ≤ 360 days | 94% ≤ 150 days 98% ≤ 180 days 100% ≤ 360 days | | |

| Output Measure: Quality of completed investigations | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | To achieve and maintain a percentage of cases within the inventory which are either substantiated or unsubstantiated of 75% or more. | To achieve and maintain a percentage of cases within the inventory which are either substantiated or unsubstantiated of 75% or more. | 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated.* | 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. | 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. | 90% of cases closed will be brought to conclusion on the merits as either substantiated or unsubstantiated. |
| *Actual:* | Completed 74 cases, of which 97% (72) were closed on the merits as either substantiated or unsubstantiated. | Completed 68 cases, of which 93% (63) were closed on the merits as either substantiated or unsubstantiated. | Completed 68 cases, of which 97% (66) were closed on the merits as either substantiated or unsubstantiated. | Completed 74 cases, of which 93.2% (69) were closed on the merits as either substantiated or unsubstantiated. | | |
| *Statistical data in FY 2002 supported the need for a change in this output measure target. | | | | | | |

| Output Measure: Timeliness in completing investigations | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete cases, on average, in 9 months, or less. Maintain the average number of cases at 9% or less within the active case inventory for more than 12 months. | Complete cases, on average, in 9 months, or less. Maintain the average number of cases at 9% or less within the active case inventory for more than 12 months. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less.* | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. |
| *Actual:* | Completed 72 cases, of which 89% were closed on the merits as either substantiated or unsubstantiated within 10 months or less. | Completed 63 cases, of which 87% that were closed on the merits as either substantiated or unsubstantiated within 10 months or less. | Completed 66 cases of which 94% were closed on the merits as either substantiated or unsubstantiated within 10 months or less. | Completed 69 cases, of which 92.8% (64) were closed on the merits as either substantiated or unsubstantiated within 10 months or less. | | |
| *Statistical data in FY 2002 supported the need for a change in this output measure target. | | | | | | |

| Output Measure: Issuance of NRC import/export licenses or amendments | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete reviews for, and issue as appropriate, 75–100 NRC import/export authorizations (NRC licenses or amendments). Staff reviews will be completed for 90% of the cases within 60 days. | Complete reviews for, and issue as appropriate, 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, 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, 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, 235–325 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, 235–325 NRC import/export authorizations (NRC licenses or amendments). Staff reviews will be completed for 100%of the cases within 60 days. |
| *Actual:* | Completed over 122 staff reviews. 100% were completed within 60 days. | Completed over 104 staff reviews. 100% were completed within 60 days. | Completed 87 staff reviews. 100% were completed within 60 days. | Completed 85 staff reviews. 100% were completed within 60 days. | | |

| Output Measure: Reviews of Executive Branch subsequent arrangements | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. |
| *Actual:* | Completed 7 staff reviews. 100% were completed within 60 days. | Completed 5 staff reviews. 100% were completed within 60 days. | Completed 3 staff reviews. 100% were completed within 60 days. | Completed 7 staff reviews. 100% were completed within 60 days. | | |

| Output Measure: Reviews of Executive Branch Section 123 Agreements for Cooperation | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. | Complete staff reviews within 60 days for all cases involving non-nuclear-weapon states. |
| *Actual:* | Completed 3 staff reviews. 100% were completed | Completed 0 staff reviews. | Completed 0 staff reviews. | Completed 0 staff reviews. | | |

| Output Measure: Numbers and types of materials technical training courses offered | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY2006** |
| *Target:* | Numbers and types of courses offered will meet 90% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 90% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. | Numbers and types of courses offered will meet 95% of cumulative needs identified by offices and regions in semiannual needs surveys. |
| *Actual:* | 100% of needs met | 100% of needs met | 100% of needs met | 100% of needs met | | |

*FY 2004 Significant Accomplishments*

NRC coordinated with DOE to facilitate the recovery of nearly half of the 5,500 unwanted or orphaned greater-than-class-C radioactive sources that were initially identified for accelerated recovery under DOE's Offsite Source Recovery Program, and as part of an ongoing effort, additional sources meeting the program's criteria have been registered for recovery. Additionally, NRC issued for public comment a proposed rule to amend requirements for training and experience in 10 CFR Part 35, "Medical Use of Byproduct Material," to reduce regulatory burden by recognizing speciality board certifications as evidence of the adequacy of the training and experience of individuals to serve as radiation safety officers, authorized medical physicists, authorized nuclear pharmacists, or authorized users.

NRC entered into an amendment to the Agreement with the State of Utah transferring to the State regulatory authority for 11e.(2) byproduct material (uranium mill tailings and other uranium milling wastes), which became effective August 16, 2004.

NRC issued orders to licensees to require security enhancements at irradiators and manufacturers and distributors of high-risk sources, including licensees in Agreement States. Training for State personnel was conducted and agreements concluded with State governments to inspect against the requirements. Additionally, entered into nine 274i Agreements for States to conduct security inspections for NRC.

The Commission developed an initial national inventory of high-risk radioactive sources in response to recommendations by the DOE/NRC Interagency Working Group on Radiological Dispersal Devices, which outlined actions to increase controls on, and prevent access to, radioactive sources of greatest concern. In addition, this national inventory addresses the International Atomic Energy Agency (IAEA) Code of Conduct guidelines for the Safety and Security of Radioactive Sources.

## *High-Level Waste Repository*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Support | 32,905 | 59,732 | 59,574 | -158 |
| Infrastructure and Support | 0 | 8,766 | 9,476 | 710 |
| **Total Budget Authority** | **32,905** | **68,498** | **69,050** | **552** |
| Program FTE | 77 | 133 | 134 | 1 |
| Infrastructure and Support FTE | 0 | 30 | 30 | 0 |
| **Total FTE** | **77** | **163** | **164** | **1** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* This program fulfills the NRC's statutory responsibilities regarding the potential DOE application for a high-level waste (HLW) repository. The Congress has approved the President's recommendation of the Yucca Mountain site in Nevada, and DOE is expected to have the license application ready for submission to the NRC in December 2005. During FY 2006, the NRC will be reviewing the application, conducting thorough safety and security evaluations, and preparing the safety evaluation report. The use of the Risk-Insights Baseline Report and the Yucca Mountain Review Plan will help achieve a more efficient and focused review of the license application. The Risk-Insights Baseline Report will be used to focus pre-licensing and licensing activities on issues that could significantly affect overall repository performance. The Yucca Mountain Review Plan will guide the staff's license application review, and will help them to determine compliance with NRC regulations.

The NRC will also conduct inspection activities addressing repository design confirmation, pre-closure safety, performance confirmation, and the effectiveness of DOE's quality assurance program. Additionally, the NRC will review new designs of rail and truck transport casks for shipments to the repository. To achieve the performance goal of openness in NRC's regulatory process, resources are provided to support communicating with stakeholders and making the regulatory process accessible to interested stakeholders. In addition, legal advice, counsel, and representation will be provided for staff reviews and Commission actions, including review of the application, hearing activities, and anticipated enforcement activities.

The NRC will conduct pre-hearings and hearings on DOE's potential license application, which are expected to be highly contested and will involve 15 or more parties in litigation that has a 3-year goal for completion (with opportunity to extend 12 months). Related activities include (1) paying rent and providing security for the Las Vegas-area hearing room; (2) maintaining the information technology systems supporting the hearings and updating software and hardware as necessary; (3)

processing adjudicatory documents in NRC's HLW information technology systems; and (4) providing round-the-clock information technology help desk support for the parties to the HLW proceeding.

The NRC's Package Performance Study will address the safety of spent nuclear fuel shipping containers in realistic transportation accidents through the demonstration testing of a full-scale rail cask under impact conditions. During FY 2005 - FY 2006, NRC will prepare for the demonstration test.

*(2) Security:* Resources support the review of security aspects of the proposed Yucca Mountain license application.

*Change from FY 2005.* The allocation of infrastructure and support costs to this program increases because of increased costs such as the FY 2006 pay raise and other increases in salaries and benefits, fees assessed by the General Services Administration, and permanent change of station.

*Program Assessment Rating Tool (PART).* Scheduled to be completed in FY 2007 for Budget Year 2009.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

| Output Measure: Resolve key technical issues (KTI) subissues | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Continue to resolve KTIs at staff level. | Resolve KTI integrated subissues with closure on 60 agreements. | Resolve KTI integrated subissues andkeep pace with DOE schedule. | Resolution of KTI agreements meets staff timeliness and quality goals. | Resolution of KTI agreements meets staff timeliness and quality goals. | NA (sunset) |
| *Actual:* | Resolved all subissues identified.* | Reviewed and closed 46 agreements.** | Met target | Met target | | |

*This measure was met as staff "closed or closed pending" all subissues identified for resolution in FY 2001, or agreement was reached with DOE to provide additional information by a certain date.
**Delays in DOE's program prevented accomplishment of closure on 14 of the 60 scheduled agreements.

| Output Measure: The activities necessary to make a decision on DOE's repository license application will be planned and executed such that the decision can be made on time or ahead of schedule and within requested budget resources.<br>Target: Major milestones that are needed to evaluate and determine whether DOE's potential repository license application meets NRC's repository performance standard will be met within a specified number of days of their due dates. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Meet milestones within 90 days of due date. | Meet milestones within 90 days of due date. | Meet milestones within 90 days of due date. | Meet milestones within 90 days of due date. | Meet milestones within 90 days of due date. | Meet milestones within 90 days of due date. |
| *Actual:* | Met milestones within 90 days. | Met milestones within 90 days. | Met target | Met target. | | |

| Output Measure: Ensure that NRC's high-level waste documentary material is made electronically available in compliance with Part 2, Subpart J, and that information technology/information management systems and business processes are in place to support a possible hearing on the proposed Yucca Mountain repository. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | Resolve information technology and information management issues to keep pace with DOE's schedule. If appropriate, certify the availability of NRC's high-level waste document collection to the Licensing Support Network (LSN) 1 month after DOE certifies its document collection. | As appropriate, resolve information technology and information management issues to keep pace with DOE's schedule and ensure continued availability of the NRC high-level waste document collection to the LSN. | Ensure continued availability of the NRC high-level waste document collection to the LSN. |
| *Actual:* | N/A | N/A | N/A | Met target. Development of information technology/ information management systems and business processes is on schedule. LSN certification was completed on schedule. | | |

| Output Measure: Timeliness in completing enforcement actions. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | N/A | Investigation cases: 100% completed within 360 days of OE processing time.<br><br>Noninvestigation cases: 100% completed within 180 calendar days of OE processing time. | Investigation cases: 100% completed within 360 days of OE processing time.<br><br>Noninvestigation cases: 100% completed within 180 calendar days of OE processing time. |
| *Actual:* | N/A | N/A | N/A | N/A | | |

| Output Measure: Timeliness in completing reviews for technical allegations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | N/A | 70% ≤ 150 days<br>90% ≤ 180 days<br>100% ≤ 360 days | 70% ≤ 150 days<br>90% ≤ 180 days<br>100% ≤ 360 days |
| *Actual:* | N/A | N/A | N/A | N/A | | |

| Output Measure: Quality of completed investigations | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | N/A | 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. | 90% of cases closed will be brought to a conclusion on the merits as either substantiated or unsubstantiated. |
| *Actual:* | N/A | N/A | N/A | N/A | | |

| Output Measure: Timeliness in completing investigations | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | N/A | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. | 80% of cases closed on the merits as either substantiated or unsubstantiated will be completed in 10 months or less. |
| *Actual:* | N/A | N/A | N/A | N/A | | |

| Output Measure: Independent technical advice on adjudicatory and nonadjudicatory matters; monitor implementation of the LSN. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | Establish formal staffing plan and plan for providing Commission with adjudicatory technical support. Begin monitoring pre-licensing activities and LSN implementation. | Complete establishment of Commission Adjudicatory Technical Support Program, initiate review of staff licensing documents, and provide technical advice to the Commission on the licensing proceeding and the implementation of the LSN. | Complete review of licensing documents and provide technical advice to the Commission in matters related to its adjudicatory responsibilities and the implementation of the LSN. |
| *Actual:* | N/A | N/A | N/A | Met target. Commission approved both plans and the program began implementation, including attending staff technical meetings and monitoring LSN activities. | | |

*FY 2004 Significant Accomplishments*

The NRC met the milestone to certify that its documentary material is electronically available on the Licensing Support Network. The NRC staff also met the timeliness and quality goals for resolving key technical issue agreements. The resolution of the issues ensures that potential health and safety issues are identified and addressed in the pre-license application phase of the project.

## *Decommissioning and Low-Level Waste*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Program Support | 19,448 | 17,916 | 20,793 | 2,877 |
| Infrastructure and Support | 0 | 6,165 | 7,304 | 1,139 |
| **Total Budget Authority** | **19,448** | **24,081** | **28,097** | **4,016** |
| Program FTE | 86 | 91 | 104 | 13 |
| Infrastructure and Support FTE | 0 | 21 | 23 | 2 |
| **Total FTE** | **86** | **112** | **127** | **15** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* The NRC will conduct decommissioning licensing and inspection activities at 20 power reactors and at approximately 40 complex materials and fuel facilities sites. These activities include project management, technical reviews, emergency preparedness and radiation protection inspections at decommissioning power reactors, material and fuel facility decommissioning plan reviews, and financial assurance reviews. Activities also include the review of safety and environmental reports related to decommissioning. In addition, the NRC will continue its oversight of the West Valley Demonstration Project, as necessary, to support the implementation of the West Valley Demonstration Project Act. The NRC will continue to work with the EPA on issues associated with the management of radioactive material and will support rulemaking on the disposition of solid materials. Implementation of the recommendations in SECY 03-0069, Results of the License Termination Rule analysis, and the recommendations from the Decommissioning Program Evaluation are expected to improve the effectiveness and efficiency of this program.

The NRC's FY 2006 budget includes $2.5 million to provide oversight of certain DOE radioactive waste incidental to reprocessing consistent with the NRC's new responsibilities in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

Research activities will provide data and models for assessing public exposure to environmental releases of radioactive materials and the technical basis for decommissioning rulemakings and controlling the disposition of solid materials. Legal advice and representation will be provided for staff and Commission activities related to decommissioning nuclear power reactors and materials sites, and legal advice and counsel will be provided on low-level waste issues that may arise. This program also supports the regulation and oversight of low-level waste (LLW), including interactions with, and technical assistance to, DOE, the Advisory Committee on Nuclear Waste, and the States

on issues of importance in the regulation of LLW. This program supports LLW licensing activities, such as on-site disposal, the review of international experience, and import/export reviews.

*(2) Security:* Resources support the review of security aspects for safety licensing actions.

*Change from FY 2005.* Program resources increase due to the expanded workload for material and fuel facility decommissioning licensing. In addition, the allocation of infrastructure and support costs to this program increases as a result of the expanded program. These increases are offset primarily by decreases for the assessment of doses from external contaminants, reflecting the completion of several research activities that support decommissioning decisions.

*Program Assessment Rating Tool (PART).* Scheduled to be completed in FY 2006 for Budget Year 2008.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

| Output Measure: Clean-up complex materials, fuel cycle sites, and power reactors | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Remove 1 site from SDMP list after satisfactory cleanup. | Remove 1 site from SDMP list after satisfactory cleanup. | Remove 1 site from SDMP list after satisfactory cleanup. Conduct 90-day acceptance review.* | Remove 1 site from SDMP list after satisfactory cleanup. Conduct 90-day acceptance review. | Develop a risk-informed, graded approach to prioritize and manage decommissioning licensing and inspection.<br><br>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, for more realistic scenarios, and preventing future legacy sites.<br><br>Conduct PART for the Decommissioning Program.<br><br>Complete high-priority licensing actions as scheduled in the Decommissioning Operating Plan. |
| *Actual:* | 1 site removed (Cabot-Performance Metals) | 1 site removed (Lake City Army Ammunition Plant) | 1 site removed (Watertown GSA)<br><br>Acceptance reviews were completed within timeliness goals | 2 sites removed from SDMP (B&W Parks Township and Molycorp-York) ; 2 complex sites also removed (Envirotest labs and University of Wyoming)<br><br>Acceptance reviews were completed within timeliness goals | | |

*Output modified in FY 2003 to conduct 90-day acceptance review of decommissioning plans and license termination plans submitted.
**Output measure and target modified in FY 2005 due to discontinuance of the SDMP classification, reflecting achievement of the intent of the SDMP list and action plan. All sites, including those with complex technical and policy issues, will now be managed within the context of a comprehensive decommissioning program.

| Output Measure: Maintenance of regulatory framework for low-level waste disposal. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Provide technical assistance to requesting Agreement States 90% of the time within schedule. | Provide technical assistance to requesting Agreement States 90% of the time within agreed-upon schedule.<br><br>Initiate technical support on low-activity mixed waste. | Provide technical assistance to requesting Agreement States 90% of the time within agreed-upon schedule.<br><br>Complete assured isolation rulemaking plan or modify guidance.<br><br>Initiate technical support on low-activity mixed waste. | Provide technical assistance to requesting Agreement States 90% of the time within agreed-upon schedule.<br><br>Complete annual review to determine need for rulemaking and/or guidance on extended storage and assured isolation. Initiate revisions to the guidance as necessary.<br><br>Continue support on EPA advanced notice of proposed rulemaking (ANPR) for disposal of low-activity waste. | Provide technical assistance to requesting Agreement States 90% of the time within agreed-upon schedule. |
| *Actual:* | N/A | Met target | Met targets | Met targets | | |

| Output Measure: Support NMSS licensing activities by preparing and/or reviewing required environmental reports | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Complete 1 draft EIS.<br>Review 1 EIS of another agency. | Complete 1 final EIS.<br>Publish NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs." | Complete 1 final EIS and 1 draft EIS. | Complete 1 final EIS and 1 draft EIS. | Complete 1 final EIS and 1 draft EIS. |
| *Actual:* | N/A | Reviewed 1 final EIS of another agency (DOE's final EIS for the Yucca Mountain site)* | Completed 2 draft EISs. Final EIS for MOX facility was delayed due to licensee design changes.<br><br>Published NUREG-1748 in August 2003. | Completed 1 DEIS (LES) and completed 1 FEIS (published Foster Wheeler FEIS, NUREG-1773, in January 2004) | | |
| *Did not meet target for completing one draft EIS; the MOX draft EIS was delayed because of a surplus plutonium disposition program, and the Sequoyah Fuels Corporation draft EIS was delayed because of a licensee request for reclassification of its waste as 11e.(2) byproduct material, which changed the method for decommissioning. | | | | | | |

*FY 2004 Significant Accomplishments*

The NRC completed and published a regulatory issues summary that provided additional specific guidance for many aspects of implementing the requirements of the License Termination Rule, which defines the standards and criteria that have to be met for NRC to terminate the license of a nuclear facility. The NRC began using more realistic exposure scenarios in evaluating compliance with the License Termination Rule. NRC approved, on a case-by-case basis, consideration of the use of intentional mixing of contaminated soil to meet the release criteria in the License Termination Rule. This approach is expected to provide additional options for licensees to decommission their facilities safely and clean up contaminated sites.

The NRC staff completed two safety evaluation reports for the Millstone Power Station's missing spent fuel rods. These reports addressed the potential impacts of fuel disposed at low-level waste burial sites, and concluded that there would be minimal impact and no need for further action.

The NRC issued the final report on Interagency Steering Committee on Radiation Standards (ISCORS) Sewage Sludge Survey and prepared a Research Information Letter concerning the results and regulatory implications. This report provided the basis for the draft ISCORS dose modeling analyses and recommendations report. The preliminary results indicated that there is no generic problem with materials regulated by the NRC. Additionally, in support of the rulemaking effort on controlling the release of solid materials, the agency completed the assessment of collective doses for potential release strategies; assessed the potential doses from reuse of released soil; developed

information for the analysis of conditional uses; coordinated the review and supporting documentation of IAEA Safety Guide 161 (RS-G-1.7), "Application of the Concepts of Exclusion, Exemption and Clearance;" and revised draft NUREG-1761, "Radiological Surveys for Controlling Release of Solid Materials," to address comments. These efforts all contributed to the development of the technical basis for the rulemaking and the supporting environmental impact statement.

## *Spent Fuel Storage and Transportation Licensing and Inspection*

| Summary | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| Budget Authority by Program ($K) | | | | |
| Program Support | 19,680 | 16,915 | 16,965 | 50 |
| Infrastructure and Support | 0 | 7,022 | 7,601 | 579 |
| Total Budget Authority | **19,680** | **23,937** | **24,566** | **629** |
| Program FTE | 105 | 91 | 92 | 1 |
| Infrastructure and Support FTE | 0 | 24 | 24 | 0 |
| **Total FTE** | **105** | **115** | **116** | **1** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

*FY 2006 Activities. (1) Safety:* The NRC will 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 NRC expects to review new applications for independent spent fuel storage installations (ISFSIs) at commercial nuclear power plants and applications for spent fuel storage casks, transportation packages, and route approvals. The NRC will address emergent technical issues such as moderator exclusion, which take advantage of design features that prevent water from entering a spent fuel transportation package. The NRC will also undertake rulemaking changes for compatibility of NRC, U.S. Department of Transportation (DOT), and International Atomic Energy Agency (IAEA) transport regulations. In addition, the NRC will complete approximately 15 safety and security inspections in FY 2006 and approximately 25 reviews of quality assurance programs to ensure that safety measures are correctly implemented by licensees and others responsible for NRC-certified spent fuel storage systems and transport packages.

Research activities will support the development and demonstration of probabilistic risk assessment methods for dry cask storage and transportation, storage of high-burnup fuels, and development of technical bases and criteria for seismic design of ISFSIs. In addition, legal advice and representation will be provided for staff and Commission activities concerning spent fuel storage and transportation, and, as appropriate, adjudicatory hearings related to ISFSIs will be held.

*(2) Security:* Resources are provided for security reviews for ISFSIs and transportation of large quantities of radioactive material. Resources are also provided for homeland security activities to implement security enhancements as necessary to develop and implement a baseline inspection program for physical protection, and develop strategies to prevent or mitigate potential vulnerabilities.

*Change from FY 2005.* Program resources increase for spent fuel storage and transportation licensing and certification activities and environmental reviews. Program salaries and benefits increase due primarily to the Government-wide FY 2006 pay raise and other nondiscretionary compensation and benefits increases. These increases are offset primarily by a decrease in spent fuel safety assessments for spent fuel storage systems, resulting from a reduction in the level of effort for dry cask storage probabilistic risk assessment (PRA) followup related to materials, fuels, seismic, and structural behavior.

*Program Assessment Rating Tool (PART).* Scheduled to be completed in FY 2005 for Budget Year 2007.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001. In addition, following these tables are the most significant accomplishments in FY 2004 for this program.

| Output Measure: Complete transportation container design reviews within timeliness goals* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 74 | 100 | 80% ≤ 8 mos<br>100%≤ 2 years | 80% ≤ 8 mos<br>100% ≤ 2 years | 80% ≤ 8 mos<br>100% ≤ 2 years | 80% ≤ 8 mos<br>100% ≤ 2 years |
| *Actual:* | 79 | 72** | 80% ≤ 8 mos 99%<br>≤ 2 years*** | 93% ≤ 8 mos<br>100% ≤ 2 years | | |

*Output measure modified in FY 2003 to exclude request for additional information response time from the target completion time.
**The storage and transportation casework was heavily impacted during FY 2002 as a result of redirection of staff efforts to response activities associated with the terrorist attacks on September 11, 2001, and follow-on vulnerability assessments; thus, fewer cases were completed in FY 2002 than originally projected.
***Completion of the NAC-UMS cask took longer than the targeted period to complete due to time involved with obtaining additional information from the applicant and applicant's interim suspension of NRC review.

| Output Measure: Complete storage container and installation design reviews within timeliness goals* | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 25 | 40 | 80% ≤ 14 mos<br>100% ≤ 2 years | 80% ≤ 14 mos<br>100% ≤ 2 years | 80% ≤ 14 mos<br>100% ≤ 2 years | 80% ≤ 14 mos<br>100% ≤ 2 years |
| *Actual:* | 62 | 36** | 89% ≤ 14 mos<br>100% ≤ 2 years | 88% ≤ 14 mos<br>100% ≤ 2 years | | |

*Output measure modified in FY 2003 to exclude request for additional information response time from the target completion time.
**The storage and transportation casework was heavily impacted during FY 2002 as a result of redirection of staff efforts to response activities associated with the terrorist attacks on September 11, 2001, and follow-on vulnerability assessments; thus, fewer cases were completed in FY 2002 than originally projected.

| Output Measure: Timeliness of completing actions on critical research programs | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | 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 | 85% of major milestones met on or before their due date |
| *Actual:* | N/A | 91% across programs. | 80% across programs.* | 90% across programs. | | |
| *The target was not met as a result of unanticipated requirements in critical research programs and emergent work of equal priority. | | | | | | |

*FY 2004 Significant Accomplishments*

NRC continued significant work on the licensing process for the Private Fuel Storage, LLC (PFS), application for a license to construct and operate an away-from-reactor independent spent fuel storage installation on the reservation of the Skull Valley Band of Goshute Indians. NRC reviewed the probabilistic, structural, and fire consequence analyses of an F-16 aircraft crash provided by both the applicant and the State of Utah. The NRC also completed independent confirmatory analyses of an F-16 crash, with support from the Sandia and Oak Ridge National Laboratories.

NRC completed and issued a final environmental impact statement (FEIS) and draft safety evaluation report (SER) for an independent spent fuel storage installation located on the site of DOE's Idaho National Engineering and Environmental Laboratory. Spent nuclear fuel and associated radioactive material from the Peach Bottom Atomic Power Station, the Shippingport Atomic Power Station, and various training, research, and isotope reactors would be repackaged and stored at the facility. The FEIS and draft SER will support a decision on whether to issue a license.

NRC completed a final rule amending 10 CFR Part 71 on packaging and transporting radioactive materials to make the regulations compatible with the International Atomic Energy Agency (IAEA) standards, and to address several NRC-initiated issues, most notably redefinition of fissile exempt material and elimination of double containment of plutonium. The rule change was the culmination of a multiyear effort that was closely coordinated with the U.S. Department of Transportation (DOT), which issued a companion regulation. The entire rulemaking process used an enhanced public participatory process that was successful in collecting views on the NRC and DOT rules, including a joint NRC-DOT-industry workshop on implementation.

NRC issued a research information letter summarizing the results of nuclear fuel cladding testing to gain confidence that it maintains integrity after long-term storage. The research program involved post-storage characterization and creep testing of pressurized water reactor fuel rods that had been stored for over 15 years in dry cask storage.

As a result, NRC issued Interim Staff Guidance Memorandum No. 11, "Cladding Considerations for the Transportation and Storage of Spent Fuel," Revision No. 3, for review of technical documents

to be submitted by licensees in support of their applications for renewal of original licenses and certificates of compliance

## PERFORMANCE MEASUREMENT

The NRC's Strategic Plan for FY 2004-2009 describes our mission and establishes the Commission direction by defining a vision, strategic objective, goals, strategic outcomes, and strategies and means to accomplish the agency's strategic objective. The FY 2006 Performance Budget uses the Strategic Plan structure to align resources and to show a clear linkage between programs and the agency's goals. In particular, the Performance Budget shows how programs and associated key outputs are aligned to the performance measures for each goal in the Strategic Plan. Specific goals, strategic outcomes, and performance targets are discussed later in this chapter.

Measuring and monitoring performance is one of the four components of the NRC's Planning, Budgeting, and Performance Management (PBPM) process. The other components are Setting the Strategic Direction, Determining Planned Activities and Resources, and Assessing Performance. See Figure 1 below.

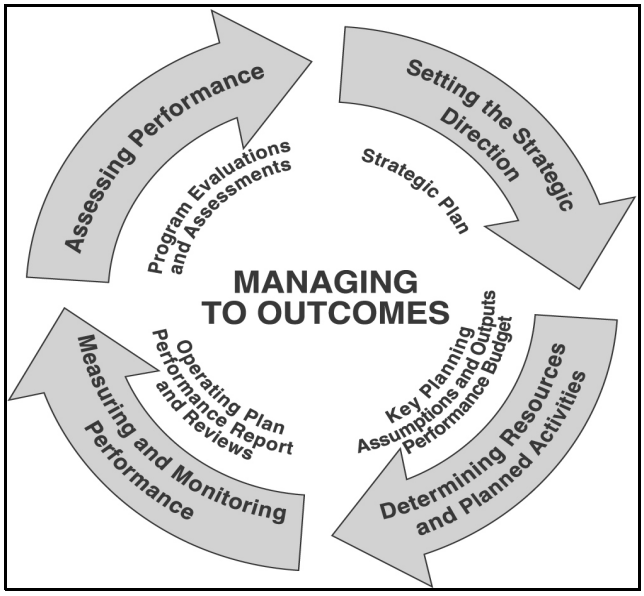
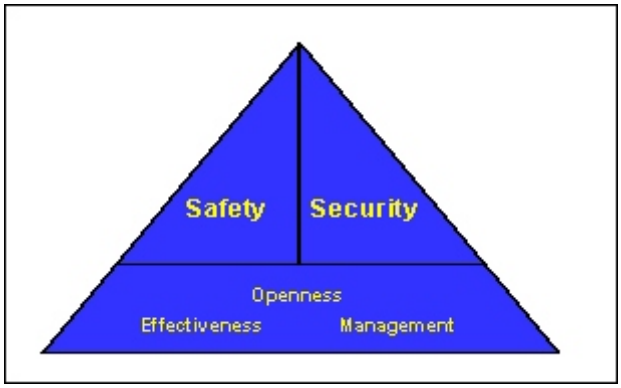



**Figure 1: The NRC's PBPM Process**

The components of the PBPM process are closely linked and complementary, reflecting a continuous cycle of performance management centered on outcomes. This document integrates the agency's PBPM functions by aligning resources with the agency's goals and establishing performance measures to enable periodic measurement and monitoring of program execution. Annual performance assessments are used to analyze performance and seek improvements in effectiveness and efficiency. The NRC's FY 2004-2009 Strategic Plan establishes the agency's long-term strategic direction and outcomes, and guides the NRC's work and allocation of resources.

## PERFORMANCE MEASUREMENT

The Strategic Plan focuses on two primary goals (safety and security) and three enabling goals (openness, effectiveness, and management excellence). Safety and security are the agency's highest priorities, while openness, effectiveness, and management excellence are strategic-level goals that enable agency success. See Figure 2 below.




For each goal, strategic outcomes provide a general measure of whether the goal is being achieved. Also under each goal are strategies intended to accomplish that goal. The strategies may describe how resources will be organized, and the policies that will apply for the management and use of those resources. For each strategy, the Strategic Plan provides selected means that describe the principal programs and initiatives to achieve specific strategies.

**Figure 2: The NRC's Strategic Goals**

Figure 3 below is a graphic representation of NRC's strategic hierarchy and supporting program structure for the Safety Goal 1. Each of the other four goals in the Strategic Plan are aligned to different strategic outcomes, strategies, and means.

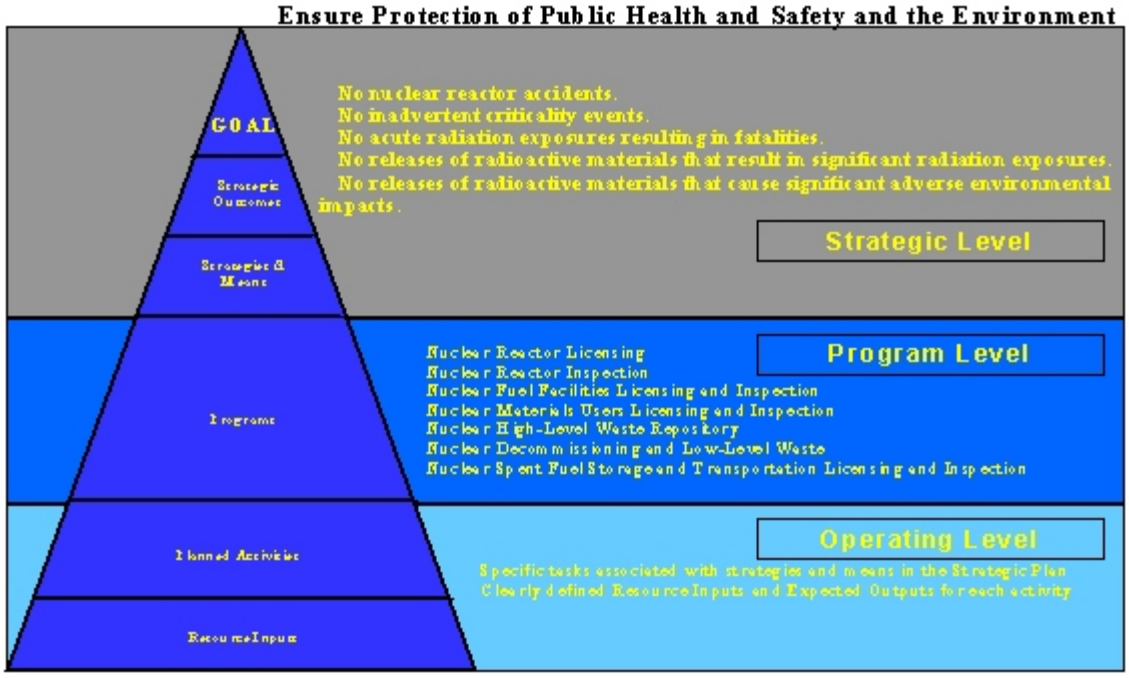



**Figure 3: Example Using Goal 1 - Safety**

## PERFORMANCE MEASUREMENT

Figure 4 below is a graphic representation of the performance management process at the NRC.

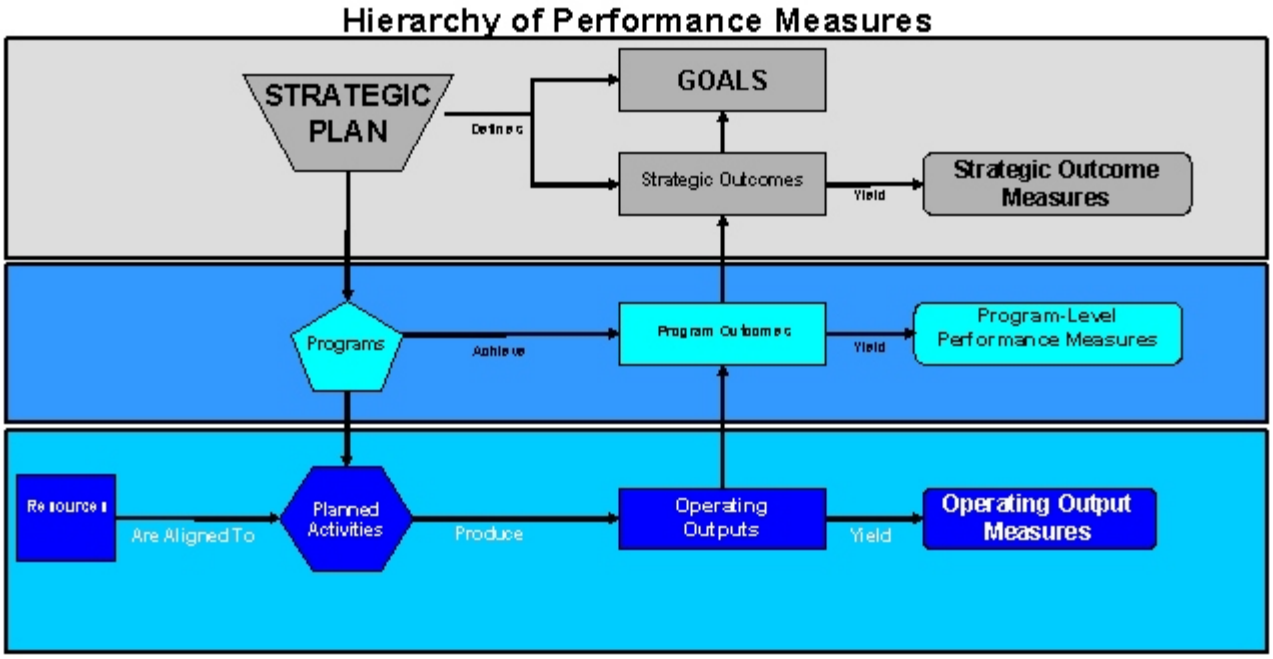



**Figure 4: The NRC's Performance Measurement Hierarchy**

The NRC's performance management process approaches performance measurement as a layered process. As depicted in the diagram above, NRC's outputs are used to measure planned activities, intermediate outcomes are used to measure performance goal measures and strategic outcomes are used to measure achievement of the NRC's strategic goals. In the Performance and Accountability Report (PAR), the NRC reports the results of strategic and program level performance measures. Selected output measures are used to identify significant accomplishments. However, output measures are more comprehensively reported in the NRC's annual performance budget.

The NRC's layered performance management approach links resources to planned activities, planned activities to programs, and programs to strategic goals. The associated measures inform management as to the efficiency of activities at the operating level, the effectiveness of programs at the program level, and the attainment of goals at the strategic level.

## PERFORMANCE MEASUREMENT

Figure 5 below shows the relationship between NRC's reactor inspection activities and its strategic goal for nuclear reactor safety -- Prevent radiation-related deaths and illness, promote the common defense and security, and protect the environment in the use of civilian nuclear reactors. In this example, resources are allocated to the planned activity, 'reactor plant inspections.' Key outputs from this planned activity support multiple intermediate outcomes (one is shown here as an example) and eventually the strategic outcome, 'no nuclear accidents.'

The NRC reports the output measures associated with the planned activity 'reactor plant inspections' in the annual performance budget. This level of reporting is focused on efficiencies at the working levels of the agency. The NRC reports the performance goal measures associated with the 'reactor inspection program,' and the strategic goal measures associated with the safety strategic outcome "no nuclear reactor accidents" in the NRC's annual performance and accountability report.

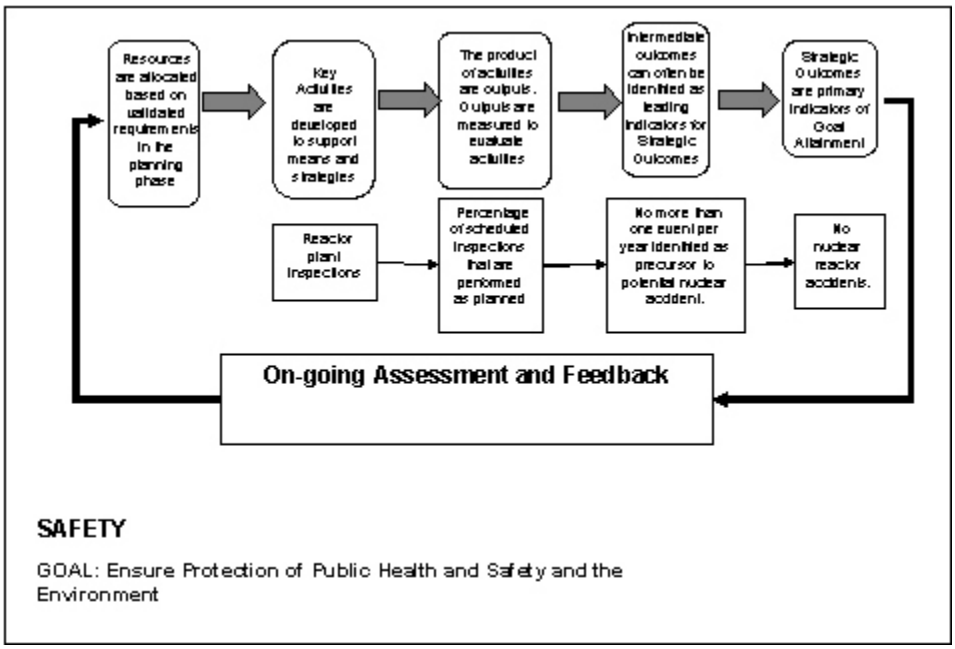



**Figure 5: Relationship Between Resources and Goals**

## PERFORMANCE MEASUREMENT

This chapter provides the performance goal measures and metrics that support the agency's five goals as depicted in the FY2004-2009 Strategic Plan. Four years of historical performance data are shown for safety and security goals that predated the FY 2004-FY 2009 Strategic Plan. For performance measures of the newly developed openness, effectiveness, and management goals, collection of data will begin in FY 2005.

Chapters 3 (Nuclear Reactor Safety Program) and 4 (Nuclear Material and Waste Safety Program) describe the major programs and associated output measures, and discuss resources and key output measurements. Both chapters include a discussion of relevant Program Assessment Rating Tool (PART) analyses.

### FY 2006 Resource Allocation by Primary Goal

Ensuring the 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's 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 without conflicting with or undermining its safety and security mission.

The NRC's resources are allocated to its Nuclear Reactor Safety Program and Nuclear Materials and Waste Safety Program area. Activities in these two major program areas contribute directly to the achievement of the agency's two primary goals of safety and security. The following chart shows the alignment of the NRC's fully costed Nuclear Reactor Safety Program and Nuclear Materials and Waste Safety Program with the two primary goals, Safety and Security.

| ALIGNMENT OF RESOURCES TO NRC GOALS (Dollars in Thousands) | | | | | | |
|---|---|---|---|---|---|---|
| | FY 2005 Enacted Full Cost | | | FY 2006 Request Full Cost | | |
| **Major Program** | **Safety** | **Security** | **Total** | **Safety** | **Security** | **Total** |
| Nuclear Reactor Safety | 406,951 | 36,104 | 443,055 | 433,412 | 35,265 | 468,677 |
| Nuclear Materials and Waste Safety | 195,698 | 22,997 | 218,695 | 198,956 | 25,743 | 224,699 |
| **Totals** | **602,649** | **59,101** | **661,750** | **632,368** | **61,008** | **693,376** |

Note: Excludes OIG.

**Figure 6: Alignment of Resources to NRC Goals**

## FY 2005-2006 PERFORMANCE MEASURES
## PRIMARY GOALS: SAFETY and SECURITY

### Goal 1 - Safety: Ensure Protection of Public Health and Safety and the Environment.

**Strategic Outcomes:**

1.1 - No nuclear reactor accidents.[1]
1.2 - No inadvertent criticality events.
1.3 - No acute radiation exposures resulting in fatalities.
1.4 - No releases of radioactive materials that result in significant radiation exposures.
1.5 - No releases of radioactive materials that cause significant adverse environmental impacts.

| GOAL 1: SAFETY - PERFORMANCE MEASURES | | | | | | |
|---|---|---|---|---|---|---|
| | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 |
| **1. Number of new conditions evaluated as red by the NRC's reactor oversight process.[2]** | | | | | | |
| *Target:* | New Metric | | | | ≤ 3 | ≤ 3 |
| *Actual:* | | | | | | |
| **2. Number of significant accident sequence precursors (ASPs) of a nuclear reactor accident.[3]** | | | | | | |
| *Target:* | ≤1 | ≤1 | ≤1 | ≤1 | 0 | 0 |
| *Actual:* | 0 | 1 | 0 | 0 | | |
| **3. Number of operating reactors whose integrated performance entered the Manual Chapter 0350 process, the multiple/repetitive degraded cornerstone column or the unacceptable performance column of the ROP Action Matrix with no performance exceeding Abnormal Occurrence Criterion I.D.4.[4]** | | | | | | |
| *Target:* | New Metric | | | | ≤ 4 | ≤ 4 |
| *Actual:* | | | | | | |
| **4. Number of significant adverse trends in industry safety performance with no trend exceeding the Abnormal Occurrence Criterion I.D.4.[5]** | | | | | | |
| *Target:* | 0 | 0 | 0 | 0 | ≤ 1 | ≤ 1 |
| *Actual:* | 0 | 0 | 0 | 0 | | |

| GOAL 1: SAFETY - PERFORMANCE MEASURES | | | | | | |
|---|---|---|---|---|---|---|
| | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 |
| **5. Number of events with radiation exposures to the public and occupational workers that exceed Abnormal Occurrence Criterion I.A** | | | | | | |
| ***Reactor Target:*** | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |
| ***Material Target:*** | ≤6 | ≤6 | ≤6 | ≤6 | ≤6 | ≤6 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |
| ***Waste Target:*** | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |
| **6. Number of radiological releases to the environment that exceed applicable regulatory limits.[6]** | | | | | | |
| ***Reactor Target:***[7] | ≤3 | ≤3 | ≤3 | ≤3 | ≤3 | ≤3 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |
| ***Material Target:*** | ≤6 | ≤5 | ≤5 | ≤5 | ≤5 | ≤5 |
| ***Actual:*** | 0 | 4 | 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:** No instances where licensed radioactive materials are used domestically in a manner hostile to the security of the United States.

| GOAL 2: SECURITY - PERFORMANCE MEASURES | | | | | | |
|---|---|---|---|---|---|---|
| | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 |
| **1. Unrecovered losses or thefts of risk-significant radioactive sources.** | | | | | | |
| ***Target:*** | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |
| **2. Number of security events and incidents that exceed the Abnormal Occurrence Criteria I.C. 2-4.** | | | | | | |
| ***Target:*** | | | | | ≤4 | ≤4 |
| ***Actual:*** | | | New Metric | | | |
| **3. Number of significant unauthorized disclosures of classified and/or safeguards information.**[8] | | | | | | |
| ***Target:*** | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Actual:*** | 0 | 0 | 0 | 0 | | |

## FY 2005-2006 PERFORMANCE MEASURES
## ENABLING GOALS: OPENNESS, EFFECTIVENESS, AND MANAGEMENT

### Goal 3 - Openness: Ensure Openness in Our Regulatory Process
**Strategic Outcome:** Stakeholders are informed and involved in NRC processes as appropriate.

| OPENNESS PERFORMANCE MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1. Percentage of surveyed stakeholders that perceive the NRC to be open in its processes.** | | |
| ***Target:*** | New measure in FY 2006 | ≥ Federal Agency Mean |
| ***Actual:*** | | |
| **2. Percentage of selected openness output measures that achieve performance targets.** | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |

| OPENNESS OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **2a. Percentage of stakeholder formal requests for information that receive an NRC response within 60 days of receipt.** | | |
| ***Target:*** | New Measure in FY 2006 | ≥ 90% |
| ***Actual:*** | | |
| **2b. Percentage 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 6th working day after the date of the document.** | | |
| ***Target:*** | New Measure in FY 2006 | ≥ 90% |
| ***Actual:*** | | |
| **2c. Percentage of non-sensitive, unclassified regulatory documents received by the NRC that are released to the public by the 6 working day after the document is added to the ADAMS main library.** | | |
| ***Target:*** | New Measure in FY 2006 | ≥ 90% |
| ***Actual:*** | | |
| **2d. The NRC achieves a user satisfaction score for the agency's public web site ≥ the Federal Regulatory Agency Mean score based on results of the yearly American Customer Satisfaction Index for Federal Web sites.** | | |
| ***Target:*** | New Measure in FY 2006 | ≥ Federal Agency Mean score |
| ***Actual:*** | | |
| **2e. Median number of days for responding to Freedom Of Information Act requests.** | | |
| ***Target:*** | ≤ 20 days | ≤ 20 days |

| OPENNESS OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| ***Actual:*** | | |
| **2f. Percentage of Directors' Decisions under 2.206 that are issued by the NRC within 120 days.** | | |
| ***Target:*** | ≥ 90% | ≥ 90 % |
| ***Actual:*** | | |
| **2g. Percentage of final SDP determinations that are made within 90 days for all potentially greater-than-green findings.** | | |
| ***Target:*** | ≥ 85% | ≥ 90% |
| ***Actual:*** | | |
| **2h. Percentage of stakeholders that believe they were given sufficient opportunity to ask questions or express their views.** | | |
| ***Target:*** | New measure in FY 2006 | ≥ Baseline FY 2005 score |
| ***Actual:*** | | |
| **2i. Percentage of Category 2 and 3 meetings on regulatory issues for which the NRC issues public notices 10 days in advance of the meeting.** | | |
| ***Target:*** | ≥ 90% | ≥ 90% |
| ***Actual:*** | | |

## Goal 4 - Effectiveness: Ensure that NRC Actions are Effective, Efficient, Realistic, and Timely

**Strategic Outcome:** No significant licensing or regulatory impediments to the safe and beneficial uses of radioactive materials.

| EFFECTIVENESS PERFORMANCE MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1. Programs assessed during the fiscal year using the Program Assessment Rating Tool (PART) receive a minimum score of 85 from OMB.** | | |
| **Program:** | Reactor Licensing | Decommissioning and Low-Level Waste |
| ***Target:*** | ≥ 85 | ≥ 85 |
| ***Actual:*** | | |
| **Program:** | Spent Fuel Storage and Transportation Licensing and Inspection | N/A |
| ***Target:*** | ≥ 85 | N/A |
| ***Actual:*** | | N/A |
| **2. The percentage of selected processes that deliver desired efficiency improvement is > 70%. (Goal is > 90% by 2008)** [9] | | |
| **Process to be measured** | **New measure in FY 2006**[10] | **Processes to be measured:**<br>2a-Reactor Licensing Actions<br>2b-Enforcement Process for Handling Discrimination Allegations<br>2c-Fuel Cycle Licensing<br>2d-Decommissioning License Termination Review<br>2e-Incident Response and Emergency Preparedness Exercises |
| ***Target:*** | **New measure in FY 2006** | **To be determined during FY 2005** |
| ***Actual:*** | | |
| **3. Number of instances where licensing or regulatory programs unnecessarily impede the safe and beneficial uses of radioactive materials.**[11] | | |
| ***Target:*** | **New measure in FY 2006** | **To be determined during FY 2005** |
| ***Actual:*** | | |

## Goal 5 - Management: Ensure Excellence in Agency Management to Carry Out the NRC's Strategic Objective

**Strategic Outcomes:** 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.

| MANAGEMENT PERFORMANCE MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1. Percentage of selected NRC management programs that deliver intended outcomes.** | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |
| **2 The percentage of selected support processes that deliver desired efficiency improvement is >70% . (Goal is > 90% by 2008).**[12] | | |
| **Processes to be measured** | **New measures in FY 2006**[13] | **Processes to be measured:**<br>1 - Drug Testing Procedures Under the NRC Drug Free Workplace Program<br>2 - Budget Formulation Process<br>3 - Infrastructure Operations<br>4 - Hiring Process |
| ***Target:*** | **New Measure in FY 2006** | **To be determined in FY 2005** |
| ***Actual:*** | | |

## PERFORMANCE MEASUREMENT

| MANAGEMENT OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1.A. Infrastructure Management Program**<br>Percentage of Infrastructure Management activities that achieve performance targets. | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |
| **1.A.1. Space Management Activity**<br>Space occupancy rate at NRC Headquarters. | | |
| ***Target:*** | 90% +/- 5% | 90% +/- 5% |
| ***Actual:*** | | |
| **1.A.2. Facilities Management**<br>Overall customer satisfaction with NRC Headquarters building services provided by Administration Directorate. | | |
| ***Target:*** | ≥ 85% | ≥ 85% |
| ***Actual:*** | | |
| **1.A.3. Security**<br>Number of incidents of unauthorized access to NRC Headquarters that results in personal injury to NRC occupants, property damage or release of protected information. | | |
| ***Target:*** | 0 | 0 |
| ***Actual:*** | | |
| **1.A.4. Administrative Support Services**<br>Percentage of staff that are satisfied with administrative support services. | | |
| ***Target:*** | ≥ 95% | ≥ 95% |
| ***Actual:*** | | |
| **1.A.5. Acquisition of Goods and Services**<br>Percentage of contract actions that are completed within established schedule. | | |
| ***Target:*** | ≥ 90% | ≥ 90% |
| ***Actual:*** | | |
| **1.A.6. Information Technology Infrastructure**<br>Percentage of time that agency-wide key Information Technology infrastructure services are available to the staff. | | |
| ***Target:*** | ≥ 99% | ≥ 99% |
| ***Actual:*** | | |
| **1.B Financial Performance/Budget and Performance Integration Program**<br>Percentage of Financial Performance/Budget and Performance Integration activities that achieve performance targets. | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |
| **1.B.1 Planning, Budget, and Analysis Activity**<br>Did NRC submit and publish the agency's Performance Budget on or before the due dates established by OMB and Congress? | | |

## PERFORMANCE MEASUREMENT

| MANAGEMENT OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.B.2 Financial Management Activity**<br>Did NRC submit and publish the agency's Performance and Accountability Report (PAR) on or before the due dates established by OMB? | | |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.B.3 Financial Management Activity**<br>Did NRC receive an unqualified opinion on the agency's financial statement audit with no material weaknesses? | | |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.B.4 Financial Management Activity**<br>Do agency-wide financial systems meet government wide requirements for financial systems? | | |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.B.5 Financial Management Activity**<br>Percentage of non-salary payments made electronically and accurately within established schedule. | | |
| ***Target:*** | $\geq$ 95% | $\geq$ 95% |
| ***Actual:*** | | |
| **1.B.6 Financial Management Activity**<br>Percentage of salary payments made electronically and accurately within established schedule. | | |
| ***Target:*** | $\geq$ 95% | $\geq$ 95% |
| ***Actual:*** | | |

## PERFORMANCE MEASUREMENT

| MANAGEMENT OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1.C Expanded Electronic Government Program**<br>Percentage of Expanded Electronic Government activities that achieve performance targets. | | |
| ***Target:*** | 75% | 75% |
| ***Actual:*** | | |
| **1.C.1 Federal Information Security Management Act (FISMA)**<br>Percent FISMA compliance across all NRC major application and general support systems. | | |
| ***Target:*** | ≥ 90% | ≥ 90% |
| ***Actual:*** | | |
| **1.C.3 Project Management Methodology (PMM)**<br>Complete preliminary testing for PMM by end of FY 2005. | | |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.C.4 Portfolio Management System (PMS)**<br>Review all Major IT Investments using PMS by end of FY 2005. | | |
| ***Target:*** | Yes | Yes |
| ***Actual:*** | | |
| **1.C.2 OMB Scorecard**<br>Current status and progress score on the OMB e-government scorecard. | | |
| ***Target:*** | Yellow or better | Yellow or better |
| ***Actual:*** | | |
| **1.D Management of Human Capital Program**<br>Percentage of Human Capital activities that achieve performance targets. | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |
| **1.D.1 Recruitment and Staffing**<br>Percent of actual Full Time Equivalents (FTE) utilization will be within 2% of authorized ceiling. | | |
| ***Target:*** | 100% of Authorized Ceiling +/- 2% | 100% of Authorized Ceiling +/- 2% |
| ***Actual:*** | | |
| **1.D.2 Recruitment and Staffing**<br>Percentage of professional hires retained for a minimum of 3-years after initial NRC employment. | | |
| ***Target:*** | ≥ 75% | ≥ 75% |
| ***Actual:*** | | |
| **1.D.3 Recruitment and Staffing**<br>Percentage of human capital strategies that are identified within 60 days to close critical skill gaps. | | |

## PERFORMANCE MEASUREMENT

| MANAGEMENT OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| ***Target:*** | ≥ 90% | ≥ 90% |
| ***Actual:*** | | |
| **1.D.4 Recruitment and Staffing**<br>The NRC scores equal to, or greater than, the aggregate federal agency mean on relevant Federal Human Capital Survey questions on work environment and valuing diversity. | | |
| ***Target:*** | New measure in FY 2006 | To be determined in FY2005 |
| ***Actual:*** | | |
| **1.D.5 Recruitment and Staffing**<br>Percentage of professional hires at the entry level. | | |
| ***Target:*** | ≥ 25% | ≥ 25% |
| ***Actual:*** | | |
| **1.D.6 Training and Development**<br>Percentage of identified training needs addressed with training and development opportunities. | | |
| ***Target:*** | ≥ 95% | ≥ 95% |
| ***Actual:*** | | |
| **1.D.7 Work life Services**<br>The NRC scores equal to, or greater than, the aggregate federal agency mean on relevant Federal Human Capital Survey questions on work life services. | | |
| ***Target:*** | New measure in FY 2006 | To be determined in FY2005 |
| ***Actual:*** | | |
| **1.E. Internal Communication Program**<br>Percentage of Internal Communication activities that achieve performance targets. | | |
| ***Target:*** | ≥ 70% | ≥ 70% |
| ***Actual:*** | | |
| **1.E.1 Redesigned Web Site**<br>Staff satisfaction with the internal web site. | | |
| ***Target:*** | New measure in FY 2006 | Set Baseline in FY 2006 |
| ***Actual:*** | | |
| **1.E.2 Internal Communication Activity**<br>Percentage of identified communications related training needs addressed with training and development opportunities. | | |
| ***Target:*** | ≥ 90% | ≥ 90% |
| ***Actual:*** | | |

## PERFORMANCE MEASUREMENT

| MANAGEMENT OUTPUT MEASURES | | |
|---|---|---|
| | **FY 2005** | **FY 2006** |
| **1.E.3 Internal Communication Activity**<br>Percentage of NRC staff that perceives NRC internal communications to be effective. | | |
| ***Target:*** | Tri-annual survey | NRC score from 2002 IG Safety Culture Survey |
| ***Actual:*** | | |

## PERFORMANCE MEASUREMENT

### President's Management Agenda

The NRC's FY 2006 budget request supports the President's Management Agenda initiatives as discussed in the following sections.

***Strategic Management of Human Capital.*** In FY 2004, the NRC updated its Strategic Human Capital and Workforce Restructuring Plan, which describes objectives and strategies for addressing the agency's human capital challenges. This plan describes the agency's continued commitment to strengthen NRC's human capital efforts to achieve agency goals linked to the Strategic Plan for FY 2004-2009. Also, various NRC offices completed changes to their organizational structures that led to improvements in efficiency and effectiveness of operations. These changes included realignment of functions and reductions in span of control.

The NRC provides technical and professional training to enhance the competencies needed to carry out the agency's activities. The NRC also uses knowledge management and succession planning strategies to close identified gaps in critical skills and to ensure continuity of leadership. Towards that end, the NRC has established a knowledge management web page to share information concerning knowledge management and the various innovative methods being used both within and outside of the NRC. The NRC continues to offer leadership competency development programs, such as the Senior Executive Service Candidate Development Program and the Leadership Potential Program. The agency has successfully placed 91 percent of all 2003 Senior Executive Service Candidate Development Program graduates in Senior Executive Service positions, and 67 percent of all 2002 Leadership Potential Program graduates in supervisory or leadership positions.

The NRC's Managing Diversity Process facilitates the agency's policy of establishing and maintaining an organizational environment that enables all employees to reach their full potential in pursuit of the NRC's mission and fosters equal opportunity for all employees. This process assists the agency to sustain a high-quality, diverse workforce and to create and maintain a positive work environment that values employee differences, with a primary goal to increase organizational capacity.

***Competitive Sourcing.*** In the area of competitive sourcing, the NRC submitted the FY 2004 Federal Activities Inventory Reform (FAIR) Act Inventory to the OMB on June 30, 2004, and received approval from the OMB in November 2004. That inventory identified 296 commercial activity full-time equivalents, 231 of which are available for public-private competition. It was published on the NRC external web site in November 2004. The FY 2005 FAIR Act Inventory will be submitted to OMB on June 30, 2005.

## PERFORMANCE MEASUREMENT

The NRC conducted four business case analyses (BCA) in FY 2004 to determine whether the selected commercial activities were appropriate for public-private competition based on the factors outlined in the NRC's Competitive Sourcing Plan. In each instance, the BCA demonstrated that it was more cost effective for the activity to be performed by federal employees, and a determination was made not to initiate a public private competition for the activity. NRC plans to conduct three BCA's in accordance with the agency's Competitive Sourcing Plan in FY 2005.

***Improved Financial Performance***. The NRC's financial systems strategy is to improve business processes, systems performance, and access to information while reducing life-cycle costs by relying on commercially available software and cross-service providers wherever possible. The NRC's core accounting, payroll, and human resources systems are cross-serviced outside the agency. The remaining internally maintained and managed financial systems are periodically reviewed for opportunities to improve performance, interface with other systems, and/or be cross-serviced. Our current systems satisfy operational and reporting requirements and provide timely, accurate, and useful information to agency managers. The NRC's systems are in substantial compliance with Federal Financial Management Improvement Act, except for the Fee Billing System.

In support of the E-Gov initiative, the NRC successfully transferred the payroll and human resources systems from internally maintained and managed systems to the Federal Payroll Processing System, which is provided through a cross-service arrangement with the National Business Center of the Department of the Interior. The NRC initiated a related project to evaluate a long-term solution for reporting time and labor data.

An NRC initiative improved the operational efficiency of the agency's Cost Accounting System by significantly reducing processing time. Specifically, the cost accounting system provides agency managers periodic reports that reflect cost information at various activity levels used in preparing the statement of net costs for the agency's financial statements. The operational efficiencies enabled the agency to meet accelerated quarterly financial statement reporting requirements.

The NRC initiated a two-phased project to consolidate, improve, modernize, and migrate the agency's license fee bill generator system to a single, contemporary information technology environment. Phase One, which consists of a requirements analysis, will be completed in FY 2005. Phase Two, which is scheduled to begin in late FY 2005, will involve implementing the recommendations that evolve from Phase One.

Accurate and Timely Financial Information - The NRC received an unqualified opinion on the FY 2004 financial statements and the opinion for FY 2003 was revised to qualified. The FY 2003 Performance and Accountability Report earned the agency a Certificate of Excellence in Accountability Reporting from the Association of Government Accountants.

Integrated Financial and Performance Management Systems for Day-to-Day Operations - The NRC has achieved a high level of financial systems integration, which supports the agency's day-to-day operations. Toward that end, core accounting is interfaced with the cost accounting, human resources management, and fee billing systems. The agency also provides electronic access to daily financial transaction data and periodic summary reports for management use. Senior managers receive monthly budget execution reports as well as agency standard cost ratios and performance data.

Annual Financial Statements and Internal Controls - The NRC received an unqualified audit opinion on the agency's financial statements in FY 2004 with one material internal control weakness. The NRC will continue to pursue actions that will result in the issuance of financial statements with unqualified audit opinions and will work to resolve the material internal control weaknesses for the fee billing systems.

In order to promote a high level of data integrity, the NRC has a robust system of internal controls designed to ensure that financial data are entered in a timely and accurate manner. The system of internal controls requires monthly reconciliation of data and certification by managers throughout the agency. The agency also developed an internal controls training program, which was provided to approximately 100 NRC executives, managers, and financial management staff during FY 2004.

The NRC has an established program for routinely assessing performance and financial information. Annually, managers are required to provide reasonable assurance that effective controls are in place to ensure the integrity of their program and financial operations. These reasonable assurance assessments are reviewed by an executive agency management group, which in turn provides assurance to the Chairman of the Commission. This is the basis for the Chairman's assurance statement contained in the agency's annual Performance and Accountability Report. As a result of revisions to OMB's guidance on internal control, the agency will evaluate its program and make necessary modifications to ensure compliance.

**Expanding Electronic Government (E-Gov).** The NRC has actively pursued implementation of expanded electronic government. During FY 2004, the NRC made important strides in utilizing electronic and technological solutions to provide high-quality service to citizens, while reducing the cost of delivering those services. The NRC is currently participating in or has evaluated 15 of the 25 Office of Management and Budget E-Gov initiatives. The agency is also making good progress toward integrating its processes for Capital Planning and Investment Control, Federal Information

Security Management Act, and Enterprise Architecture. The agency has also increased its focus on Information Technology (IT) system performance measurement and tracking.

The NRC continued to maintain compliance with the Federal Information Security Management Act (FISMA). NRC compliance with FISMA resulted in the only grade of "A", issued by the House Committee on Government Reform's Subcommittee on Technology, Information Policy, Intergovernmental Relations and the Census. The NRC IT security budget for FY 2006 is approximately $6.6 million, which includes approximately 9 FTE.

**Budget and Performance Integration.** The NRC continues to make progress in achieving budget and performance integration. This progress includes identifying new outcome-based performance measures aligned with the agency's Strategic Plan for FY 2004-2009, accurately monitoring program performance, and integrating performance information with associated costs. The NRC's Planning, Budgeting, and Performance Management process is the fundamental framework for the agency's planning and budgeting activities. This process establishes plans that define clear goals to be accomplished and tracks progress throughout the year to ensure that the NRC achieves the desired results. The process also links the NRC's various budget accounts to the associated goals to clearly establish the budgetary resources that are devoted to its primary goal.

During FY 2004, the NRC's Nuclear Materials Users Licensing and Inspection program was evaluated using the Program Assessment Rating Tool (PART) promulgated by the Office of Management and Budget. The program was rated effective, which is the highest rating possible. This experience yielded valuable insights for future reviews and evaluations of NRC programs. The NRC has also modified the agency's performance appraisal system for senior executives to better align accountability for performance with achieving organizational objectives. In addition, the NRC reorganized its performance budget structure to facilitate PART review.

## OFFICE OF THE INSPECTOR GENERAL

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, 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 FY 2003-2008 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. Thus, OIG uses the following strategic goals to 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 FY 2006 budget and performance plan supports the implementation of the OIG's strategic plan and the associated goals and strategies.

## INSPECTOR GENERAL

### Budget Overview

| Summary | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Function ($K)** | | | | |
| Salaries and Benefits | 5,972 | **6,187** | **6,630** | **443** |
| Contract Support and Travel | 1,325 | **1,325** | **1,686** | **361** |
| **Total Budget Authority** | 7,297 | **7,512** | **8,316** | **804** |
| FTE | 47 | **47** | **49** | **2** |

OIG is requesting a FY 2006 budget of $8.316 million and 49 FTE. This request reflects a total increase of $804,000 over the FY 2005 budget. Of this amount, $295,000 will support the addition of 2 FTE to our audit staff which includes $230,000 for salaries and benefits and $65,000 for travel, training, and information technology. This funding will enhance OIG's capability to focus on NRC activities related to security and the handling and disposal of nuclear waste. The remaining increase of $509,000 represents increased personnel costs in salaries and benefits of $213,000 due to the Federal pay raise and other increases in base pay and benefits necessary to sustain existing staff and a $296,000 increase in technical support, training, and travel funding.

These 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 2006 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 2004 Accomplishments

The following sections discuss examples of the work performed in FY 2004 by the OIG audit and investigative programs.

*Audits*

In FY 2004, OIG issued 24 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:

- The *Audit of NRC's Incident Response Program* found that the effectiveness of that program is critical to ensuring that proper actions are taken to protect against or minimize harm to the public health and safety and the environment in the event of an incident involving NRC-licensed facilities and materials. Although NRC has improved its incident response program, the program (1) is performed inconsistently across regions and from exercise to exercise, (2) is not fully understood by licensees, and (3) does not ensure that staff are qualified and ready to respond. These issues exist because of NRC's lack of focus for maintaining and improving its incident response program. NRC also lacks incident response performance standards, an objective mechanism for evaluating performance during exercises, and a formal agencywide incident response training program. Consequently, NRC can be more effective in carrying out essential functions of its incident response program during an incident.

- The *Audit of NRC's Protection of Safeguards Information* found that NRC's use of safeguards information (SGI) contains similarities to the Governmentwide program to protect confidential information. However, in light of the events of September 11, 2001, and a subsequent Executive Order redefining confidential information, NRC should determine whether the SGI designation is still justified. NRC also needs to take strong action to limit inappropriate releases. Specifically, the agency needs clear guidance on what constitutes SGI and a central program authority to maintain a sound and effective SGI program. The report also identifies concerns with the secure telecommunications network that is used to transmit SGI. Until the SGI program is strengthened, the likelihood of releasing SGI to unauthorized individuals will remain high.

- The *Review of NRC's Personnel Security Program: Contractor Policies and Practices* found that NRC employees do not consistently implement established contractor access policy and procedure requirements. In addition, NRC does not act expeditiously to resolve access decisions pertaining to information technology contractors when issues are identified in background investigations. Further, because NRC does not screen investigation results

when received to determine issue significance, cases that may warrant expedited resolution or immediate action cannot be identified for such treatment.

- The *Review of NRC's Personnel Security Program* found that, despite enhancements made in recent years to NRC's personnel security program, further action is needed to bring the program into compliance with agency requirements and ensure that the agency is responding appropriately to heightened security concerns since the terrorist attacks of September 11, 2001. Specifically, NRC needs to (1) adhere to agency security clearance reinvestigation requirements, (2) improve controls to ensure that employees return their badges and complete the security-termination statement prior to termination, (3) improve the accuracy of automated personnel security data, and (4) begin processing summer interns for clearances earlier so that NRC can fully benefit from money spent on such clearances each year.

- The *Review of NRC's Administration of Selected Contracts and Acquisition Workforce Training* found that NRC's acquisition management was generally adequate; however, opportunities for improvement exist. Specifically, guidance is needed on exercising contract options and security guard services need increased monitoring. Further, acquisition training for project managers is not completed in a timely manner and course content needs improvement.

*Investigations*

In FY 2004, OIG completed 82 investigations and two 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:

- In response to a Congressional request, OIG conducted an Event Inquiry to determine the circumstances surrounding NRC's receipt of a condition report concerning the Davis-Besse Nuclear Power Station (Davis-Besse). The condition report with attached photographs was prepared in April 2000 by a Davis-Besse engineer at the beginning of Davis-Besse refueling outage 12 (12 RFO). The report and photographs documented red-brown boric acid deposits caused by corrosion of the reactor vessel head due to cracked penetration nozzles and leakage of reactor coolant water. In March 2002, Davis-Besse identified a large cavity, caused by corrosion, in the reactor pressure head next to a control rod drive mechanism nozzle. OIG was asked to determine if the NRC Region III staff was aware of the condition report and, if so, how the information in the condition report was handled. OIG determined there was ineffective communication within NRC concerning leakage and corrosion at Davis-Besse. Region III managers, while planning inspection activities for Davis-Besse 12 RFO, reviewed NRC inspection reports that documented recurring leakage and also received numerous

accounts of leakage and corrosion from the onsite resident inspectors. However, Region III managers did not direct any inspection activities or resources to follow up on the information they had received concerning leakage and corrosion. OIG also determined that Davis-Besse resident inspectors and possibly a Region III-based inspector reviewed the condition report during the 12 RFO. However, these inspectors did not recognize the significance of the boric acid deposits described in the condition report and did not relay the information to Region III managers.

- On February 16, 2002, Davis-Besse began a refueling outage that included inspections of the reactor vessel head penetration nozzles. During these inspections, Davis-Besse identified several cracked nozzles, and during the repair process the licensee identified a large hole in the reactor pressure vessel head. The hole resulted from corrosion caused by the leakage of reactor coolant water from cracked penetration nozzles. The NRC Executive Director for Operations subsequently chartered the Davis-Besse Lessons Learned Task Force (Task Force) to conduct an independent evaluation of NRC's regulatory processes related to assuring vessel head integrity. OIG completed an investigation in response to concerns that significant information was omitted from the Task Force's final report dated September 30, 2002. Specifically, a public interest group alleged that the Task Force developed insights into the nuclear industry and NRC failures that led to the vessel head degradation at Davis-Besse. However, the Task Force allegedly deleted much of this information from its final report, thereby failing to give the NRC Commission complete and accurate information about the failures that contributed to the vessel head degradation at Davis-Besse. OIG determined that the Task Force report accurately reflected the findings and recommendations of each Task Force member, and OIG found no evidence that the Task Force omitted information it considered relevant from its final report.

- OIG conducted an investigation into an allegation that NRC's planned oversight of licensee inspections of steam generators at Seabrook Nuclear Power Station (Seabrook) during an upcoming October 2003 refueling outage would be inadequate. An organization alleged that the technique used by the industry to detect steam generator tube cracking was deficient. During this investigation, OIG reviewed the appropriateness of the NRC oversight of the steam generator tube inspections during the October 2003 outage. OIG reviewed the NRC inspection plan and observed the NRC inspector's review of the licensee's steam generator inspection. OIG also observed the operation of the steam generator tube inspection equipment and the analysis of data generated from the inspection. Based on OIG's review of the NRC inspection plan and report and observation of NRC inspection activities at Seabrook during the October 2003 outage, OIG found that NRC's oversight of Seabrook's October 2003 inspection of steam generator tubes appeared to be appropriate.

- OIG completed an investigation into an allegation that NRC and DOE held a series of closed meetings regarding the Yucca Mountain repository that violated the NRC Open Meeting Policy and the agreement between DOE and NRC regarding prelicensing interactions. OIG determined that the NRC held a series of meetings to review the DOE Quality Assurance Program at Yucca Mountain. However, the NRC staff meeting notices for the technical reviews contained several inconsistent statements. One NRC staff notice indicated that the technical review included a public entry and exit meeting, while another meeting notice indicated that the technical review would be closed to the public. OIG also determined that while NRC initially called the review process an "evaluation," it was later changed to an "audit." OIG learned that closed meetings to conduct audits are acceptable under the NRC prelicensing agreement with DOE. Further, OIG determined that the NRC Open Meeting Policy does not currently apply to meetings with DOE. However, NRC has voluntarily applied the policy and included it in the interagency agreement with DOE regarding Yucca Mountain. OIG found that inconsistencies in the content of the NRC staff notices may have contributed to the public's perception that the NRC was conducting meetings that were improperly closed. Nevertheless, OIG concluded that the NRC closed the meetings to the public based on valid exceptions provided under NRC agreements and policies.

- OIG conducted an Event Inquiry in response to concerns that NRC failed to provide adequate oversight of the manufacture of Holtec International dry cask storage systems used by nuclear power plants to store spent nuclear fuel. The concerns were raised by a former Exelon Corporation auditor who believed that there were significant unresolved problems with the quality assurance (QA) program at the cask fabricator, U.S. Tool and Die (US T&D), that could result in the fabrication of defective casks. The auditor indicated that these problems were identified in an audit of US T&D in 2000. This audit was conducted under the auspices of the Nuclear Procurement Issues Committee (NUPIC), a nuclear industry audit group. The auditor believed these problems should have been identified during an NRC inspection of US T&D in 1999. OIG determined that the NRC, as well as NUPIC, conducted a number of inspections and audits of the QA programs at Holtec and US T&D between 1996 and 2002. These examinations disclosed deficiencies. However, both the NRC and NUPIC concluded that both QA programs were adequate and met requirements. In addition, OIG found that the NRC staff's examination of the auditor's concerns was sufficient to support their conclusion that the issues identified by the auditor did not adversely impact the physical integrity of the dry cask storage systems.

## Budget Authority And Full-Time Equivalent by Program

| Summary | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Program ($K)** | | | | |
| Audits | 3,474 | **4,287** | **4,967** | **680** |
| Investigations | 2,558 | **3,225** | **3,349** | **124** |
| Management and Operational Support | 1,265 | **0** | **0**[14] | **0** |
| **Total Budget Authority** | 7,297 | **7,512** | **8,316** | **804** |
| **Full-Time Equivalent Employment by Program** | | | | |
| Audits | 21 | **25** | **27** | **2** |
| Investigations | 18 | **22** | **22** | **0** |
| Management and Operational Support | 8 | **0** | **0** | **0** |
| **Total FTE** | 47 | **47** | **49** | **2** |

## Justification of Program Requests

The work to be performed by the OIG during FY 2006 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 2006 budget. The FY 2006 budget identifies the 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

| Summary | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Function ($K)** | | | | |
| Salaries and Benefits | 2,597 | **3,291** | **3,634** | **343** |
| Contract Support and Travel | 877 | **996** | **1,333** | **337** |
| **Total Budget Authority** | 3,474 | **4,287** | **4,967** | **680** |
| **FTE** | 21 | **25** | **27** | **2** |

For FY 2006, OIG requests $4.967 million and 27 FTE to carry out its audit program activities. With these resources, OIG will conduct approximately 24 to 26 audits and special 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 and add an additional two FTE to the audit staff. These additional resources will enhance OIG's capability to focus on NRC activities related to security and the handling and disposal of nuclear waste.

Two-thirds of the overall audit effort is in the nuclear safety and security areas; however, current audit resources are insufficient to meet OIG's goal of providing effective audit coverage of the critical nuclear waste and security areas:

- The amount of nuclear waste is increasing, which creates the need for additional storage. NRC is facing safety challenges that 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. One audit position will allow for increased focus on the nuclear waste area.

- The security area within the NRC since the terrorist attacks of September 11, 2001, has been one of increased emphasis and exponential growth with its alignment with homeland security. An additional audit position will be dedicated to the security area to enhance the knowledge and expertise essential to this highly technical area.

These additional audit resources will enable OIG to assist the agency in the early identification of problems, thereby giving the NRC an opportunity to address these issues at an early stage.

## FY 2005–2006 Audit Performance Goals

OIG audits planned for FY 2005–2006 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 2006 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 65 percent of OIG audit recommendations within one year.

## Investigations

| Summary | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Budget Authority by Function ($K)** | | | | |
| Salaries and Benefits | 2,355 | **2,896** | **2,996** | **100** |
| Contract Support and Travel | 203 | **329** | **353** | **24** |
| **Total Budget Authority** | 2,558 | **3,225** | **3,349** | **124** |
| **FTE** | 18 | **22** | **22** | **0** |

For FY 2006, OIG requests $3.349 million and 22 FTE to carry out its investigative program activities. With these resources, OIG will conduct 50–70 investigations and Event Inquiries covering a broad range of misconduct and mismanagement affecting various NRC programs. The OIG will also continue its regional liaison activities to facilitate closer coordination between OIG and NRC's regional offices. The 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 2005–2006 Investigative Performance Goals

The OIG investigative program for FY 2005–2006 will include investigative activities related to the integrity of the NRC's programs and operations. The 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 success, the OIG investigative program has established the following FY 2006 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 on 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 on 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 2005–FY 2006.

## Linkage Between OIG's Strategic Plan Goals and OIG's Performance Plan for FY 2005–FY 2006

OIG updated its Strategic Plan for FY 2003–FY 2008 and associated performance goals to 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 our 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 a 5-year 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 support and complement each other 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 2005–FY 2006 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 2005 and FY 2006. Since the FY 2003–FY 2008 Strategic Plan is a departure from OIG's previous plan, FY 2004 performance data represents OIG's baseline year.

### Goals and Strategies

| STRATEGIC GOAL 1: Advance NRC's Efforts to Enhance Safety and Protect the Environment. |
|---|
| **General Goals**<br>**1. 80% of OIG products and activities undertaken to accomplish Strategic Goal 1 will identify risk areas or management challenges related to enhancing safety.**<br><br>**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 in the coming years concerning nuclear reactor oversight, the regulation of nuclear materials, and the handling of high-level waste.

A significant concern 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 must address an increasing number of license amendment requests to increase the power generating capacity of specific commercial reactors and license renewal requests to extend reactor operations beyond originally set expiration dates, and the introduction of new technology such as new and advanced reactor designs.

In fulfilling its responsibilities to regulate nuclear materials, NRC must ensure that its regulatory activities regarding nuclear 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., mixed oxide [MOX] fuel fabrication) and the potential oversight of DOE non-weapons laboratories 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. Further, DOE and the industry will need contingency plans if the repository is not licensed or not available in 2012 and NRC will need to be able to respond to those plans.

In response to these agency challenges, OIG will implement the following strategies and actions over a 5-year period:

**Strategy 1-1: Identify risk areas associated with NRC efforts to implement the Reactor Oversight 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 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 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 the 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**<br>**1. 85% of OIG products and activities undertaken to accomplish Strategic Goal 2 will identify risk areas or management challenges related to security.**<br><br>**2. 70% of OIG products and activities undertaken to accomplish Strategic Goal 2 will have a high impact on improving security.** |

**Discussion:** NRC faces a number of challenges in increasing its emphasis on security since September 11, 2001. Terrorist attacks which occurred that day resulted in a sharpened focus on the security and protection of operating nuclear power plants and nuclear materials. NRC, in concert with other agencies, is assessing current risks faced by licensed activities, reviewing existing security measures, and identifying vulnerabilities. Further, a comparable risk and vulnerability assessment is underway concerning 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 will implement the following strategies and actions over a 5-year 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 Office of the Chief Information Officer (OCIO) 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**<br>**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.**<br><br>**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 efficiently, effectively, and economically manage its resources. In the IG's assessment of the most serious management challenges facing the NRC, the IG 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. The IG identified:

- Acquisition and implementation of information resources,
- Administration of all aspects of financial management, and
- Maintenance of a highly competent staff (i.e., human capital management).

These management challenges dovetail with the President's Management Agenda, which NRC is striving to implement. The President's Management Agenda, announced in the summer of 2001, is an aggressive strategy for improving the management of the Federal Government. It focuses on five areas of management weakness across the Government where improvements and the most progress can be made:

- Improve workforce planning,
- Improve financial management practices,
- Integrate budget and performance,
- Increase competitive sourcing, and
- Expand electronic Government.

In addition, NRC has other challenges in the control and accountability of property, facilities management operations, and the acquisition of goods and services.

In response to these agency challenges, OIG will implement the following strategies and actions over a 5-year 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 the Office of the Chief Financial Officer and the Office of the Chief Information Officer 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.

## PERFORMANCE MEASURES

| Measures | Goal 1 Advance NRC's Safety Efforts | | | Goal 2 Enhance NRC's Security Efforts | | | Goal 3 Improve NRC's Corporate Management | | |
|---|---|---|---|---|---|---|---|---|---|
| | Baseline 2004 | Target 2005 | Target 2006 | Baseline 2004 | Target 2005 | Target 2006 | Baseline 2004 | Target 2005 | Target 2006 |
| 1. Percent of OIG products/activities[15] undertaken to identify risk areas or management challenges[16] relating to the improvement of NRC's safety, security, and/or corporate management programs. | 100% | 80% | 80% | 100% | 85% | 85% | 98% | 65% | 65% |
| 2. Percent of OIG products/activities that have a high impact[17] on improving NRC's safety, security, and/or corporate management programs. | 100% | 70% | 70% | 100% | 70% | 70% | 89% | 70% | 70% |
| 3. Number of audit recommendations agreed to by agency. | 100% | 90% | 90% | 100% | 90% | 90% | 100% | 90% | 90% |
| 4. Final agency action within 1 year on audit recommendations. | 7% | 50%[18] | 50% | 89% | 65% | 65% | 81% | 65% | 65% |
| 5. Agency action in response to investigative reports. | 100% | 90% | 90% | 100% | 90% | 90% | 100% | 90% | 90% |
| 6. Acceptance by NRC's Office of the General Counsel of OIG-referred Program Fraud and Civil Remedies Act cases | | | | | | | N/A | 70% | 70% |

## Verification and Validation of Measured Values and Performance

In FY 2004, OIG implemented an automated management and information system that was used to capture performance data for a majority of required audits. In addition, OIG uses several small database systems using either Microsoft Access or Clipper applications to measure investigations performance.

## 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 2006 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 Strategic and General Goals ($K) | OIG Strategic and General Goals | | |
|---|---|---|---|
| | Advance NRC's Safety Efforts ($K) | Enhance NRC's Security Efforts ($K) | Improve NRC's Corporate Management ($K) |
| **FY 2006 Programs ($8,316, 49 FTE)** | | | |
| **Audits ($4,967; 27 FTE)** | **$1,957 11.5 FTE** | **$1,121 6.5 FTE** | **$1,889 9.0 FTE** |
| **Investigations ($3,349; 22 FTE)** | **$373 2.5 FTE** | **$373 2.5 FTE** | **$2,603 17 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 preparation, coordination, and 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 2006, the OIG estimates that its costs will be $1.307 million, which includes salaries and benefits for eight FTE. The tables below provide a breakdown of the FY 2006 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 Allocation by Program ($K) | FY 2006 FTE | FY 2006 Salaries and Benefits | FY 2006 Contract and Support |
|---|---|---|---|
| Audits | 4 | 545 | 122 |
| Investigations | 4 | 545 | 95 |
| **Total** | **8** | **$1,090** | **$217** |

## COMPARATIVE COSTS OF MANAGEMENT AND OPERATIONAL SUPPORT

| Summary | FY 2004 Enacted | FY 2005 Enacted Full Cost | FY 2006 Estimate | |
|---|---|---|---|---|
| | | | Request | Change from FY 2005 |
| **Budget Authority by Function ($K)** | | | | |
| Salaries and Benefits | 1,019 | 1,054 | 1,090 | 36 |
| Contract Support and Travel | 245 | 202 | 217 | 15 |
| **Total Budget Authority** | 1,264 | 1,256 | 1,307 | 51 |
| **FTE** | 8 | 8 | 8 | 0 |

## APPENDIX I: BUDGET AUTHORITY BY FUNCTION

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

| NRC Appropriation | FY 2004* Enacted | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change From FY 2005 |
| **Salaries and Expenses (S&E)** | | | | |
| Salaries and Benefits | 355,151 | 384,433 | 400,956 | 16,523 |
| Contract Support | 248,468 | 259,035 | 270,875 | 11,840 |
| Travel | 14,709 | 18,282 | 21,545 | 3,263 |
| **Total (S&E)** | **618,328** | **661,750** | **693,376** | **31,626** |
| **Office of the Inspector General (OIG)** | | | | |
| Salaries and Benefits | 5,972 | 6,187 | 6,630 | 443 |
| Contract Support | 1,095 | 1,095 | 1,376 | 281 |
| Travel | 230 | 230 | 310 | 80 |
| **Total (OIG)** | **7,297** | **7,512** | **8,316** | **804** |
| **Total NRC Appropriation** | | | | |
| Salaries and Benefits | 361,123 | 390,620 | 407,586 | 16,966 |
| Contract Support | 249,563 | 260,130 | 272,251 | 12,121 |
| Travel | 14,939 | 18,512 | 21,855 | 3,343 |
| **Total (NRC)** | **625,625** | **669,262** | **701,692** | **32,430** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

## APPENDIX II: HOMELAND SECURITY

### HOMELAND SECURITY
(Dollars in Thousands)

| | FY 2004 Enacted* | FY 2005 Enacted Full Cost | FY 2006 Full Cost | |
|---|---|---|---|---|
| | | | Request | Change from FY 2005 |
| **Budget Authority by Major Programs** | | | | |
| Nuclear Reactor Safety | | | | |
| Nuclear Reactor Licensing | 24,046 | 21,108 | 18,102 | -3,006 |
| Nuclear Reactor Inspection | 8,273 | 14,996 | 17,163 | 2,167 |
| **Subtotal - Nuclear Reactor Safety** | **32,319** | **36,104** | **35,265** | **-839** |
| Nuclear Materials and Waste Safety | | | | |
| Fuel Facilities Licensing and Inspection | 5,605 | 8,463 | 8,969 | 506 |
| Nuclear Materials Users Licensing and Inspection | 7,658 | 11,053 | 12,822 | 1,769 |
| High-Level Waste Repository | 0 | 293 | 341 | 48 |
| Decommissioning and Low-Level Waste | 0 | 107 | 127 | 20 |
| Spent Fuel Storage and Transportation Licensing and Inspection | 3,976 | 3,081 | 3,484 | 403 |
| **Subtotal - Nuclear Materials and Waste Safety** | **17,239** | **22,997** | **25,743** | **2,746** |
| Information Technology Planning and Resource Management | 3,651 | 0 | 0 | 0 |
| **Total** | **53,209** | **59,101** | **61,008** | **1,907** |

*Beginning in FY 2005, the NRC included the agency's infrastructure and support costs as a portion of total program costs. FY 2004 enacted numbers do not reflect these allocated costs.

## EXPLANATION OF THE FULL COST BUDGET ALLOCATION

The FY 2006 Performance Budget identifies the agency's infrastructure and support costs and distributes them to programs as a portion of total program cost. The allocation methodology is consistent with the methodology used for preparing the agency's financial statements.

The agency infrastructure and support involve activities that are necessary for the staff and agency programs to achieve goals, but which are more efficiently and effectively performed centrally. These activities include rental of space and facilities management, 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 resources management, planning and budget analysis, accounting and finance, and policy support services to the Commission and program area staff in performing their regulatory mission activities and achieving their performance goals. The following table provides a breakdown of the costs of infrastructure and support by program.

### INFRASTRUCTURE AND SUPPORT ALLOCATION BY PROGRAM
### (Dollars in Thousands)

| Program | FY 2005 | | FY 2006 | |
|---|---|---|---|---|
| | FTE | Allocation ($) | FTE | Allocation ($) |
| **Nuclear Reactor Safety** | | | | |
| Reactor Licensing | 235 | 67,301 | 240 | 73,101 |
| Reactor Inspection | 206 | 61,354 | 212 | 67,371 |
| **Subtotal - Nuclear Reactor Safety** | **441** | **128,655** | **452** | **140,472** |
| **Nuclear Materials and Waste Safety** | | | | |
| Fuel Facilities Licensing and Inspection | 41 | 12,150 | 40 | 12,447 |
| Nuclear Materials Users Licensing and Inspection | 69 | 20,187 | 67 | 20,727 |
| High-Level Waste Repository | 30 | 8,766 | 30 | 9,476 |
| Decommissioning and Low-Level Waste Management | 21 | 6,165 | 23 | 7,304 |
| Spent Fuel Storage and Transportation Licensing and Inspection | 24 | 7,022 | 24 | 7,601 |
| **Subtotal - Nuclear Materials and Waste Safety** | **185** | **54,290** | **184** | **57,555** |
| **Total Infrastructure and Support Allocation** | **626** | **182,945** | **636** | **198,027** |

## BUDGET AUTHORITY AND FULL-TIME EQUIVALENT BY FUNCTION
## (Dollars in Thousands)

| Summary | FY 2004 Enacted | FY 2005 Enacted | FY 2006 Request | FY 2006 Change From FY 2005 |
|---|---|---|---|---|
| **Budget Authority by Function ($)** | | | | |
| Administration, Rent, and Human Resources | 62,818 | 66,880 | 70,796 | 3,916 |
| Information Technology and Information Management | 61,432 | 63,119 | 65,003 | 1,884 |
| Financial Management | 16,546 | 18,133 | 19,021 | 888 |
| Policy Support | 26,049 | 26,435 | 28,707 | 2,272 |
| Permanent Change of Station | 6,320 | 8,378 | 14,500 | 6,122 |
| **Total Budget Authority** | **173,165** | **182,945** | **198,027** | **15,082** |
| **Full-Time Equivalent Employment by Function** | | | | |
| Administration, Rent, and Human Resources | 161 | 161 | 163 | 2 |
| Information Technology and Information Management | 179 | 184 | 186 | 2 |
| Financial Management | 105 | 105 | 105 | 0 |
| Policy Support | 174 | 176 | 182 | 6 |
| Permanent Change of Station | 0 | 0 | 0 | 0 |
| **Total FTE** | **619** | **626** | **636** | **10** |

## Justification of Costs by Function

Infrastructure and support comprise five functions. Only the significant changes from FY 2005 resources are discussed below.

*Administration, Rent, and Human Resources*

Resources increase for the FY 2006 pay raise and other increases in salaries and benefits, movement of contractors to offsite space to accommodate agency FTE growth, the increase in fees assessed by General Services Administration (GSA), administrative cost increases, and additional mandated civil rights and diversity activities.

- Resources are included for anticipated agency space requirements. The agency is currently working to determine its future space requirements. Resources are necessary to fund contract increases for the movement of contractors offsite, associated workstation reconfiguration, and additional potential offsite space to accommodate NRC FTE employee growth in headquarters.

- Resources are included for an approximate two percent increase in rent and facilities management associated with projected escalations in GSA lease management fees and real estate taxes.

- Resources are included to defray administrative costs for security and employee health unit cost escalations, metro and postal rate increases, administrative contract wage rate increases, general and audio-visual (AV) supplies, additional transcription services, renovations, furniture, and supplies.

- Resources are included for additional workload stemming from requirements under Title VI (including Executive Order 13166, Limited English Proficiency-LEP) and Title IX of the Civil Rights Act and to support diversity planning and strategy formulation.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001.

| Output Measure: Diversity of agency workforce groups is equivalent to the relevant civilian labor force. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Workforce groups are no more than 25% under-represented in occupations relevant to NRC. | Workforce groups are no more than 25% under-represented in occupations relevant to NRC. | Workforce groups are no more than 25% under-represented in occupations relevant to NRC. | Protected workforce groups are no more than 25% under-represented in occupations relevant to NRC. | Protected workforce groups are no more than 25% under-represented in occupations relevant to NRC. | NRC's minority workforce compares favorably (within 25%) with relevant national labor market occupational data. |
| *Actual:* | < 25% | < 25% | < 25% | < 25% | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Human capital strategies support achievement of the NRC's corporate management strategies to sustain a high-performing, diverse workforce. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Hire 25% of new professional staff at the entry level.<br><br>Retain 75% of new professional hires over the first 3 years of NRC employment. | Hire 25% of new professional staff at the entry level.<br><br>Retain 75% of new entry-level and professional hires over their first 3 years of NRC employment. | Hire 25% of new professional staff at the entry level.<br><br>Retain 75% of new entry-level and professional hires over their first 3 years of NRC employment | Hire 25% of new professional staff at the entry level.<br><br>Retain 75% of new entry-level and professional hires over their first 3 years of NRC employment | Hire 25% of new professional staff at the entry level.<br><br>Retain 75% of new entry-level and professional hires over their first 3 years of NRC employment |
| *Actual:* | N/A | Hired 41% at entry level.<br><br>Retained 84% over 3 years. | Hired 24% at entry level.<br><br>Retained 86% over 3 years. | Hired 18% at entry level. *<br><br>Retained 86% over 3 years. | | |
| *The large percentage (41%) of entry level staff hired in FY 2002 affected the agency's infrastructure in that the agency's capacity: (1) had difficulty accommodating the demands for providing timely technical training for the high number of trainees and (2) had difficulty providing adequate supervisory time needed to ensure their development. Consequently, the agency scaled back entry level hiring efforts in FY 2004. | | | | | | |

| Output Measure: Staffing strategies achieve targeted workforce levels. Supervisory ratio is maintained at 8:1. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | FTE utilization is within 2% of authorized FTE ceiling.<br><br>Supervisory ratio is maintained at 8:1. | FTE utilization is within 2% of authorized FTE ceiling.<br><br>Supervisory ratio is maintained at 8:1. | FTE utilization is within 2% of authorized FTE ceiling.<br><br>Supervisory ratio is maintained at 8:1. | FTE utilization is within 2% of authorized FTE ceiling.<br><br>Supervisory ratio is maintained at 8:1. | FTE utilization is within 2% of FTE allocation or other agreed-upon target level.<br><br>Supervisory ratio is maintained at 8:1. | FTE utilization is within 2% of FTE allocation or other agreed-upon target level.<br><br>Supervisory ratio is maintained at 8:1. |
| *Actual:* | Within 0.3%<br><br>Supervisory ratio 8:1. | Within 2%<br><br>Supervisory ratio 8:1. | Within 0.6%<br><br>Supervisory ratio 8:1. | Within 0.8%<br><br>Supervisory ratio 8:1. | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Human Capital Strategies to address high-priority skills gaps. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | Develop and engage human capital strategies to address high-priority skills gaps within 60 days of identification. | Identify human capital strategies for critical skill gaps within 60 days 90% of the time. | Identify human capital strategies for critical skill gaps within 60 days 90% of the time. |
| *Actual:* | N/A | N/A | N/A | Met target. | | |

| Output Measure: GSA biennial customer satisfaction report on building services provided by ADM at the White Flint Complex. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | An overall customer satisfaction rating of 80% or higher. | N/A | An overall customer satisfaction rating of 85% or higher. | N/A | An overall customer satisfaction rating of 85% or higher. |
| *Actual:* | N/A | 94% | N/A | 90% | | |

| Output Measure: Review of draft rules to ensure that the rules submitted for publication are acceptable by the Office of the Federal Register without substantive changes that would delay publication and affect the promulgation of the rule and the implementation of Commission policy. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. | Complete reviews within schedule agreed by the Office of Administration and the requesting office 99% of time. |
| *Actual:* | 100% | 100% | 100% | 100% | | |

| 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 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Not less than 20%. | Not less than 20%. | Not less than 30%. | Not less than 30%. | Not less than 30%. |
| *Actual:* | N/A | 53% | 59% | 68% | | |

| Output Measure: OMB Directed Acquisition Reform Initiative Measure. Percent of required synopses for acquisitions that are posted on the government-wide point-of-entry Web site (www.FedBizOpps.gov) during the fiscal year. Synopses for acquisitions are those valued at over $25,000 for which widespread notice is required including all associated solicitations except for acquisitions covered by an exemption in the Federal acquisition regulations. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | 100% of all required synopses. | 100% of all required synopses. | 100% of all required synopses. | 100% of all required synopses. | 100% of all required synopses. |
| *Actual:* | N/A | 100% | 100% | 100% | | |

| Output Measure: OMB Directed Acquisition Reform Initiative Measure. Competitive Sourcing FY 2004. Number of business case analyses performed on commercial activities listed on the approved FAIR Act inventory and conducted in accordance with Agency competitive sourcing plan. (Measure Revised in FY 2004.) | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | | | 3 business case analyses | 3 business case analyses | 3 business case analyses |
| *Actual:* | N/A | | | 4 business case analyses. | | |

*Information Technology and Information Management*

Resources increase for the FY 2006 pay raise and other increases in salaries and benefits, telecommunications and IT seat management contract escalations, agency business systems requirements, and enhanced information security. These increases are partially offset by project completions, such as the Microsoft Sequel Server 2000 upgrade and electronic document management system conversion from “non-PDF” to “PDF” type files, and by planned efficiencies.

- Resources are included for increases in local and long-distance telecommunications charges and to plan and prepare for the agency transition from FTS to Networx Government-wide contract for long-distance data and voice services in FY 2006. Resources also support an increase of approximately four percent for network and desktop computer integrated services and contract costs.
- Resources are included for cost escalations for database administration maintenance for agency systems such as the Human Resources Management System and the Reactor Program System. Resources are also included for business process improvements to identify methods to simplify and streamline work processes in information technology application development.

- Resources are included for increases for implementation of 10 CFR Part 95, “Facility Security Clearance and Safeguarding of National Security Information and Restricted

Data Implementation," secure communications and infrastructure, the Safeguards Information Program, and development and implementation of a special access program. Increases for secure communications reflect increased agency needs for secure communications capability and a shorter technology obsolescence life cycle.

*Output Measures.* The requested resources will support agency efforts to achieve the output targets in the following tables. The tables provide, where available, historical performance on the measures from FY 2001.

| Output Measure: Complete at least one key process improvement per year in select program and support areas that increase efficiency, effectiveness, and realism. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 1 key process completed | 1 key process completed | 1 key process completed | 1 key process completed |
| *Actual:* | N/A | N/A | Target not met. A contract has been awarded and a list of proposed tasks has been identified by the contractor and is in the process of prioritization by OCIO management. The first of a series of process improvement studies will begin during the first quarter of FY 2004. | Target met. Contracted a review of the processes and procedures being used to manage the delivery of infrastructure services and received the comprehensive report entitled "Analysis of Operational Procedures" and outlining a high level roadmap to improve in five interrelated areas. The delivery of the report meets the measure in FY 2004. | | |

| Output Measure: NRC is addressing all statutory requirements. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | For 100% of statutory requirements, the NRC has action plans in place to address requirements. | For 100% of statutory requirements, the NRC has action plans in place to address requirements. | For 100% of statutory requirements, the NRC has action plans in place to address requirements. | For 100% of statutory requirements, the NRC has action plans in place to address requirements. |
| *Actual:* | N/A | N/A | Met target. Actions are underway for all statutory requirements. | Met target. | | |

| Output Measure: Increase the average security level for all NRC major applications and general support systems in accordance with the Federal IT Security Assessment Framework, as defined by the National Institute of Standards and Technology (NIST) and the CIO Council. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Achieve an average NIST level of 4.0 with all systems at a minimum level of 3. | Achieve an average NIST level of 4.0 with all systems at a minimum level of 3. | Achieve an average NIST level of 4.0 with all systems at a minimum level of 3. | Achieve an average NIST level of 4.0 with all systems at a minimum level of 3. |
| *Actual:* | N/A | N/A | Met target | Met target | | |

| Output Measure: All operational NRC major applications and general support systems meet the requirements of Management Directive 12.5, "NRC Automated Information Systems Program," including a system security plan, contingency plan, certification and accreditation. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 90% of systems meet Management Directive 12.5 requirements. | 95% of systems meet Management Directive 12.5 requirements. | 100% of systems meet Management Directive 12.5 requirements. | 100% of systems meet Management Directive 12.5 requirements. |
| *Actual:* | N/A | N/A | Met target. The NRC has reviewed all major IT systems to ensure that they are operating within 90% of the targets for cost, scheduling, and reliability. If systems deviate from the 90% target, the NRC will, as required by the Clinger-Cohen Act, identify and implement appropriate corrective actions. | Met target. The NRC has reviewed all major IT systems to ensure that they are operating within 95% of the targets for cost, scheduling, and reliability. Should systems deviate from the 95% target, the NRC will, as required by the Clinger-Cohen Act, identify and implement appropriate corrective actions. | | |

| Output Measure: IT security training for all employees appropriate to their individual interaction with and responsibility for IT systems. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 100% new employees; 50% existing employees; 50% employees with direct IT responsibility. | 100% new employees; 50% existing employees; 75% employees with direct IT responsibility. | 100% new employees; 50% existing employees; 75% employees with direct IT responsibility. | 100% new employees; 50% existing employees; 75% employees with direct IT responsibility. |
| *Actual:* | N/A | N/A | Met target | Met target | | |

| Output Measure: 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 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | A robust computer security incident response capability is established and maintained to include the regional offices. | A security vulnerability patch testing, dissemination, and tracking capability is maintained for all major applications and general support systems. | All major applications and general support systems have updated security accreditation packages. | All major applications and general support systems have updated security accreditation packages. |
| *Actual:* | N/A | N/A | Met target | Met target | | |

| Output Measure: Availability of key infrastructure services which are provided as part of the agency information technology infrastructure. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| Target: | 99.6% availability | 99.6% availability | 99.6% availability | 99.6% availability | 99.6% availability | 99.6% availability |
| Actual: | 99.6% | 99.8% | 99.6% | 99.8% | | |

| Output Measure: Availability of agency network servers within the agency information technology infrastructure (determined by the percentage of work hours agency network servers are available for staff use exceeding scheduled downtime and scheduled outages). | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 99.8% availability | 99.8% availability | 99.8% availability | 99.8% availability | 99.8% availability | 99.8% availability |
| *Actual:* | 99.8% | 99.8% | 99.8% | 99.7% | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Network security (respond to any new network security vulnerability upon discovery). | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Respond within 24 hours | Respond within 24 hours | Respond within 24 hours | Respond within 24 hours | Respond within 24 hours |
| *Actual:* | N/A | Met target (216 potential network security vulnerabilities responded to within 24 hours of discovery). | Met target (238 potential network security vulnerabilities responded to within 24 hours of discovery). | Met target (274 potential network security vulnerabilities responded to within 24 hours of discovery) | | |

| Output Measure: Security and availability of critical e-mail and Web access infrastructure services (restore e-mail and Web access to operational status upon discovery of a security incident). | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | Restore access < 4 hour 99.9% of time | Restore access < 4 hours 99.9% of time | Restore access < 4 hours 99.9% of time | Restore access < 4 hours 99.9% of time | Restore access < 4 hours 99.9% of time |
| Actual: | N/A | No security incidents reported. | No security incidents reported. | No security incidents reported. | | |

| Output Measure: Respond to requests and resolve problems through the Infrastructure Services and Support Contract in a timely fashion. Applies to desktops, printers, servers, communications equipment, relocations, additions, modifications and restoration of files. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 96% of time on average that contracts are meeting their agreed upon service levels. | 96% of time on average that contracts are meeting their agreed upon service levels. | 96% of time on average that contracts are meeting their agreed upon service levels. | 96% of time on average that contracts are meeting their agreed upon service levels. |
| *Actual:* | N/A | N/A | 96.4% | 90.0% * | | |
| *The 96% goal was not achieved because in several instances the Service Level Requirements for e-mail availability/restoration and hardware/software installs were not met. A proposed amendment to the contract to increase reliability is currently under management review. This target may also be modified in the future to reflect agency experience. | | | | | | |

| Output Measure: Level of staff satisfaction with information in NRC's primary application systems (on a scale of 1 to 5). | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | 3.8 | Biennial measure | 3.8 | 3.8 | Biennial measure | 3.8 |
| *Actual:* | 3.7 | N/A | Survey delayed to first quarter FY 2004. | 4.1 | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Ensure that system investments are effective, efficient, and realistic. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case. | Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case. | Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case. | Major systems operate within 90% of cost, schedule, and performance targets as defined by their business case. |
| *Actual:* | N/A | N/A | Met target. The NRC verified that all major IT systems are operating within 90% of their targets. Where systems deviate from the 90% target, NRC will identify and implement the appropriate corrective action. | 13 of 14 major systems operated within 90% of cost, schedule, and performance targets as defined by their business case. One system exceeded its cost baseline by 14% as a result of new requirements identified during its proof of concept and will be rebaselined. | | |

| Output Measure: Minimize burden on licensees and the public by using open standards to receive transmissions. This measure has been superceded by the e-Rule that was issued in October 2003 and by other e-Gov activities. As a result of the e-Rule, 100% of agency external transaction processes must be made available to the public electronically, so this output measure is no longer meaningful and is removed in FY 2004. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 30% of agency external transaction processes are made available to the public electronically. | Discontinue measure | Discontinue measure | Discontinue measure |
| *Actual:* | N/A | N/A | Met target (59%) | N/A | N/A | N/A |

| Output Measure: Percent of agency enterprise architecture (EA) data aligned with OMB guidance. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | 80% of agency EA data aligned | 80% of agency EA data aligned | 80% of agency EA data aligned |
| *Actual:* | N/A | N/A | N/A | 83% | | |

| Output Measure: New IT Technologies demonstrate productivity improvements in business processes through technical assessments. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | N/A | 50% of new technology assessments identify potential productivity gains. | 50% of new technology assessments identify potential productivity gains. | 50% of new technology assessments identify potential productivity gains. |
| *Actual:* | N/A | N/A | N/A | 100% | | |

| Output Measure: Percent of initial responses to requests for correction of information that meet response time-frame established in the final Information Quality Guidelines. Percent of appeal requests for correction of information that meet response time-frame established in the final Information Quality Guidelines. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | 70% of responses are within the established timeliness guidelines. | 80% of responses are within the established timeliness guidelines. | 80% of responses are within the established timeliness guidelines. | 80% of responses are within the established timeliness guidelines. |
| *Actual:* | N/A | N/A | No requests have been received. | No requests have been received. | | |

| Output Measure: Customer satisfaction with FOIA Services. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| Target: | N/A | N/A | At least 50% of responses to simple requests are completed within 20 working days. At least 50% of responses to complex requests are completed within 30 working days. | At least 50% of all requests closed within 20 working days. Median days no greater than 20 working days for simple requests. Median days no greater than 30 working days for complex documents. | At least 50% of all requests closed within 20 working days. Median days no greater than 20 working days for simple requests. Median days no greater than 30 working days for complex documents. | At least 50% of all requests closed within 20 working days. Median days no greater than 20 working days for simple requests. Median days no greater than 30 working days for complex documents. |
| Actual: | N/A | N/A | Simple - 67%<br>Complex - 50% | All - 64%<br>Simple - 11 days<br>Complex - 47 days | | |

| Output Measure: Level of customer satisfaction with NRC's Public Web Site. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Achieve an overall average of at least 3 on a scale of 1-4 for respondent ratings of key service quality factors in response to Public Web Site satisfaction survey (average of all ratings across all respondents). | Achieve an overall average of at least 3 on a scale of 1-4 for respondent ratings of key service quality factors in response to Public Web Site satisfaction survey (average of all ratings across all respondents). | Achieve an overall average of at least 3 on a scale of 1-4 for respondent ratings of key service quality factors in response to Public Web Site satisfaction survey (average of all ratings across all respondents). | Achieve an overall average of at least 3 on a scale of 1-4 for respondent ratings of key service quality factors in response to Public Web Site satisfaction survey (average of all ratings across all respondents). |
| *Actual:* | N/A | N/A | Achieved 3.04 | Achieved 3.09 | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

*Financial Management*

Resources increase for the FY 2006 pay raise and other increases in salaries and benefits, implementation of the agency's new budget formulation system, and implementation of the Government-wide E-travel initiative. These increases are partially offset by the planned completion of the implementation of a new time and labor system in FY 2005.

- Resources are included for an agency-wide, multi-user budget formulation application, which will replace the current single-user, desktop database. The new system will increase efficiency by allowing multiple users to update the system, provide agency-wide access to budget information, provide real-time aggregation of entered budget data, and provide for more robust reporting capabilities.

- Resources are included for implementation of E-travel in FY 2006. E-travel 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 established in the following tables. The tables provide, where available, historical performance on the measures from FY 2001.

| Output Measure: Complete PART evaluations in accordance with agency-approved schedule. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | N/A | N/A | Complete PART evaluations by September 2003. | Complete PART evaluations by June 2004 for Nuclear Materials Users Licensing and Inspection Subprogram. | Complete PART evaluations by June 2005 for Reactor Licensing and Spent Fuel Storage and Transportation Licensing and Inspection Subprograms. | Complete PART evaluations by June 2006 for Decommissioning and Low-Level Waste Subprogram. |
| *Actual:* | N/A | N/A | Met target | Met target | | |

| Output Measure: Submit and publish the triennial Strategic Plan to Congress and OMB on time. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Not required until FY 2003 | Not required until FY 2003 | Submit and publish FY 2003 - FY 2008 Strategic Plan 9/29/03.* | Not required until FY 2006 | Not required until FY 2006 | Submit and publish FY 2006 - FY 2011 Strategic Plan 9/29/06. |
| *Actual:* | N/A | N/A | Target not met* | N/A | N/A | |
| *Date extended until August 12, 2004, due to extensive Agency rewrite and review. | | | | | | |

# APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Submit and publish the Budget Estimates and Performance Plan and Program Performance Report annually to OMB. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Submit FY 2002 Budget Estimates and Performance Plan on time Submit FY 2000 Performance Report 3/31/01. | Submit FY 2003 Budget Estimates and Performance Plan (Congress) 2/4/02 and FY 04 Budget Estimates and Performance Plan 9/9/02 (OMB) Submit FY 2001 Performance Report 2/27/02. | Submit FY 2004 Budget Estimates and Performance Plan (Congress) 2/3/03 and FY 05 Budget Estimates and Performance Plan 9/8/03 (OMB) Submit FY 2002 Performance Report 2/1/03. | Submit Final FY 2005 Performance Budget (Congress) 2/2/04 and FY 06 Budget Estimates and Performance Plan 9/13/04 (OMB) Submit FY 2003 Performance Report 2/1/04. | Submit FY 2006 Performance Budget (Congress) 2/2/05 and FY 07 Budget Estimates and Performance Plan 9/12/05 (OMB) Submit FY 2004 Performance Report 11/15/04. | Submit FY 2007 Performance Budget (Congress) 2/4/06 and FY 08 Budget Estimates and Performance Plan 9/11/06 (OMB) Submit FY 2005 Performance Report 11/15/05. |
| *Actual:* | Met target | Met target | 2 of 3 targets met | All targets met | | |

| Output Measure: Meet accelerated deadline for Performance and Accountability Report. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Publish the FY 2000 report by March 2001. | Publish the FY 2001 report by February 2002. | Publish the FY 2002 report by February 2003. | Publish the FY 2003 report by February 2004. | Publish the FY 2004 report by November 15, 2004. | Publish the FY 2005 report by November 15, 2005. |
| *Actual:* | Published the FY 2000 report in March 2001. | Published the FY 2001 report in February 2002. | Met target. | The FY 2003 Performance and Accountability Report was published 2 months ahead of schedule. | | |

| Output Measure: Receive an unqualified opinion financial statement audit. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Receive unqualified opinion on the FY 2000 audit. | Receive unqualified opinion on the FY 2001 audit. | Receive unqualified opinion on the FY 2002 audit. | Receive unqualified opinion on the FY 2003 audit. | Receive unqualified opinion on the FY 2004 audit. | Receive unqualified opinion on the FY 2005 audit. |
| Actual: | Met target | Met target | Met target | Target not met* | Met target | |
| *The auditor found the restated FY 2003 statements to be fairly presented, except for adjustments, if any, due to the lack of evidence supporting the completeness of accounts receivable and revenue. | | | | | | |

## APPENDIX III: EXPLANATION OF THE FULL COST BUDGET ALLOCATION

| Output Measure: Receive no material weaknesses on the financial statement audit. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Receive no material weaknesses on the FY 2000 financial statement audit. | Receive no material weaknesses on the FY 2001 financial statement audit. | Receive no material weaknesses on the FY 2002 financial statement audit. | Receive no material weaknesses on the FY 2003 financial statement audit. | Receive no material weaknesses on the FY 2004 financial statement audit. | Receive no material weaknesses on the FY 2005 financial statement audit. |
| *Actual:* | 2 material weaknesses reported | 2 material weaknesses reported | 1 material weakness reported | 1 material weakness reported | | |

| Output Measure: Financial systems meet Government wide requirements. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Financial systems meet Governmentwide requirements. | Financial systems meet Governmentwide requirements. | Financial systems meet Governmentwide requirements. | Financial systems meet Government wide requirements. | Financial systems meet Governmentwid e requirements. | Financial systems meet Governmentwide requirements. |
| *Actual:* | One system out of seven did not meet Government wide requirements. | One system out of seven did not meet Government wide requirements. | One system out of seven did not meet Governmentwide requirements. | One system out of seven did not meet Governmentwide requirements. | | |

| Output Measure: Meet statutory fee collection requirement. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Achieve approximately 100% actual collections when compared with projected collections and maintain past due accounts receivable at $5 million or less by the end of 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:* | Achieved 100.7% Maintained past due accounts at $2 million. | 99.3% collected. Maintained past due accounts receivable at less than 1% of annual billings. | Met target | Met target | | |

| Output Measure: Publish proposed and final fee rules. | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Proposed rule mid-March, final rule mid-June. | Proposed rule mid-March, final rule mid-June. | Proposed rule mid-March, final rule mid-June. | Proposed rule mid-March, final rule mid-June. | Proposed rule mid-March, final rule mid-June. | Proposed rule mid-March, final rule mid-June. |
| *Actual:* | Met target | Met target | Met target | Met target | | |

| Output Measure: Nonsalary payments | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Pay 95% of payments on time; accurately; and electronically. | Pay 95% of payments on time; accurately; and electronically. | Pay 95% of payments on time; accurately; and electronically. | Pay 95% of payments on time; accurately; and electronically. | Pay 95% of payments on time; accurately; and electronically. | Pay 95% of payments on time; accurately; and electronically. |
| *Actual:* | Paid 95% of on time, 99% accurately, and 95% by EFT. | Paid 87% of on time, 100% accurately, and 87% by EFT. | Paid 94% of on time, 100% accurately, and 100% by EFT. | Paid 94% of on time, 100% accurately, and 99% by EFT. | | |

| Output Measure: Salary/awards payments | | | | | | |
|---|---|---|---|---|---|---|
| | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004** | **FY 2005** | **FY 2006** |
| *Target:* | Pay 99% of payments on time; accurately; and electronically. | Pay 99% of payments on time; accurately; and electronically. | Pay 99% of payments on time; accurately; and electronically. | Pay 99% of payments on time; accurately; and electronically. | Pay 99% of payments on time; accurately; and electronically. | Pay 99% of payments on time; accurately; and electronically. |
| *Actual:* | Paid 100% of on time, 99% accurately, and 100% by EFT. | Paid 100% of on time, 100% accurately, and 100% by EFT. | Paid 100% of on time, 100% accurately, and 100% by EFT. | Paid 99% of on time, 100% accurately, and 100% by EFT. | | |

## *Policy Support*

Resources increase for the FY 2006 pay raise and other increases in salaries and benefits and to provide services to the Commission and program area staff in performing their regulatory mission activities and achieving their performance goals. This increase includes resources for a new agency work tracking system which will be implemented in FY 2006.

- Additional FTE are included primarily to support agency external communications.
- Resources are included for a single new-work tracking system which will replace two legacy systems and operate on the agency's new operating platform. This new system will increase efficiency by eliminating duplicate data entry, increase reporting

capabilities, and increase the number of users with access to the system. The new system will enhance organizational effectiveness and efficiency.

*Permanent Change of Station*

Resources increase for permanent-change-of-station costs based on historical estimates, identification of ways to control discretionary costs, and projected FTE increases.

- Permanent-change-of-station costs are driven by employee relocations, including resident inspector moves and agency new hires, and by the average cost per move. Agency FTE growth and mandatory transfers of resident inspectors, in addition to inflation, continue to drive this cost estimate higher. To control cost growth, FY 2006 projections are based on the assumption that the agency will modify its change-of-station policy to reduce costs.

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

### The NRC's Data Collection Procedures

Most of the data used to measure the NRC's performance against its strategic goals related to maintaining safety are obtained or derived from the NRC's abnormal occurrence (AO) data and reports submitted by licensees. 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 Sequence Coding and Search System (SCSS), the Accident Sequence Precursor (ASP) Database, the Nuclear Materials Events Database (NMED), and the Radiation Exposure Information Report System.

The NRC has established procedures for the systematic review and evaluation of events reported by NRC licensees and Agreement State licensees. The objective of the review is to identify events that are significant from the standpoint of public health and safety based on criteria that include specific thresholds. The NRC uses a number of sources to determine the reliability and the technical accuracy of event information reported to the NRC. Such sources include (1) 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.

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

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.

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

### Verification and Validation for Goal 1 - Safety: Ensure protection of public health and safety and the environment

### Nuclear Reactor Safety

***Strategic Outcomes*:**

- *No nuclear reactor accidents.*
- *No inadvertent criticality events.*
- *No acute radiation exposures resulting in fatalities.*
- *No releases of radioactive materials that result in significant radiation exposures.*
- *No 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 abnormal occurrence (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 abnormal occurrence 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 abnormal occurrences. NRC Management Directive 8.1 "Abnormal Occurrence Reporting Procedure," provides thorough documentation of the abnormal occurrence reporting process.

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

***Validation:*** No nuclear reactor accidents. 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.

No inadvertent criticality events. Events collected under this performance measure 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 to occur red, it would result in prompt and thorough investigation, including consequences, root causes, and necessary actions by the licensee and the NRC to mitigate the consequences and prevent recurrence.

No acute radiation exposures resulting in fatalities. 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 to occur red, it would result in prompt and thorough investigation of the event, its consequences, its root causes, and necessary actions by the licensee and/or the NRC to mitigate the consequences and prevent recurrence. This strategic outcome measure is a direct measurement of the occurrence of radiation-related deaths at nuclear reactors.

No 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.

No releases of radioactive materials that cause significant adverse environmental impacts. The radiation produced in the process of generating power from nuclear materials can also potentially harm the environment if it is not properly controlled. Releases that have the potential to adversely impact the environment are currently undefined. As a surrogate for this performance measure, the NRC collects data on the frequency with which radiation 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.

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

***Performance Measures:***

- ***Number of significant safety events and conditions per year at reactor facilities.***

- ***Number of new conditions evaluated as red by the NRC's oversight process with no event or condition involving a reactor accident.***

  ***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.

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.

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 safety events and conditions per year at reactor facilities.***

- ***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 an Sequence Coding and Search System (SCSS) 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 $\Delta$CDP of $\geq 1 \times 10^{-3}$.

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

- ***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 with no performance exceeding the Abnormal Occurrence Criteria 1.D.4.***

  ***Reactor Safety Target: Less than or equal to 4***

***Verification:*** The data for this performance measure is collected by the NRC's Reactor Oversight Process (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.

Section 208 of the Energy Reorganization Act of 1974 (Public Law 93-438) defines an abnormal occurrence (AO) as an unscheduled incident or event that the NRC determines is significant from the standpoint of public health or safety. The Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66) requires that AOs be reported to Congress annually. The NRC uses a formal process (Management Directive 8.1, "Abnormal Occurrence Reporting Procedure") to report to Congress those events that the NRC or an Agreement State determined were AOs.

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.

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

- ***Number of significant adverse trends in industry safety performance with no trend exceeding the Abnormal Occurrence Criterion 1.D.4.***

  ***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 Reactor Oversight Process (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.

***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.

Section 208 of the Energy Reorganization Act of 1974 (Public Law 93-438) defines an abnormal occurrence (AO) as an unscheduled incident or event that the NRC determines is significant from the standpoint of public health or safety. The Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66) requires that AOs be reported to Congress annually. The NRC uses a formal process to report to Congress those events that the NRC or an Agreement State determined were AOs.

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

- ***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: Less than or equal to 3***

***Verification:*** As with overexposures, licensees report environmental releases of radioactive materials 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 can be harmful if not properly controlled. Consequently, the NRC tracks all releases of radioactive materials in excess of regulatory limits as a performance measure because repetitive releases have the potential to endanger public safety or harm the environment.

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

**Verification and Validation for Goal 1 - Safety: Ensure protection of public health and safety and the environment**

**Nuclear Material Safety and Safeguards**

***Strategic Outcomes*:**

- ***No inadvertent criticality events.***

***Verification:*** 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 Augmented Inspection Team to confirm the reliability of the data. The event is also tracked through the Nuclear Materials Event Database (NMED). An event of this nature would be immediately investigated and followed up by the NRC.

Should an event meeting this threshold occur, it would be reported to the NRC through a number of sources, but primarily through required licensee notifications. These events are summarized in event notifications and preliminary notifications, which are used to widely disseminate the information to internal and external stakeholders. For activities of the Office of Nuclear Material Safety and Safeguards (NMSS), the NMED is an essential system used to collect information on such events.

The fuel cycle and materials 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.

***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, including the consequences, its root causes, and necessary actions by the licensee and the NRC to mitigate the consequences 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.

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- ***No acute radiation exposures resulting in fatalities.***

***Verification:*** 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. For activities of the Office of Nuclear Material Safety and Safeguards, the NMED is an essential system used to collect information on such events.

The fuel cycle, materials, spent fuel storage and transportation, and decommissioning 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 reviews, emphasis and analysis during the IMPEP reviews, NMED training in headquarters, the regions and Agreement States, and discussions at all meetings of Agreement States and the Conference of Radiation Control Program Directors (CRCPD).

***Validation:*** There is a logical relationship between the no-acute-radiation-exposures-resulting-in-fatalities measure and ensuring the protection of public health and safety. 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 radioactive hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70) is made by the NRC, Agreement State technical specialists, or our consultants.

NRC feels the data collected to meet this strategic outcome is free from bias. NMSS does not look at statistical sampling of data to determine results. Rather, all events data is 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. Although NMSS procedures and NRC regulations associated with event reporting

include specific requirements for timely notifications, there is a lag time between when an event occurs and when the consequences of an event are known.

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. At these reviews, staff and management validate the occurrence of these events.

- ***No releases of radioactive materials that result in significant radiation exposures.***[19]

***Verification:*** NMSS defines this strategic outcome as any discharge or dispersal of radioactive materials, or waste (wastes are a subset of 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. This metric does not include exposures from sealed sources.

Should an event meeting this threshold occur, it would be reported to the NRC and/or Agreement States through a number of sources, but primarily through required licensee notifications. These events are summarized in event notifications and preliminary notifications, which are used to widely disseminate the information to internal and external stakeholders. For activities of the Office of Nuclear Material Safety and Safeguards, the NMED is an essential system used to collect information on such events.

The fuel cycle, materials, spent fuel storage and transportation, and decommissioning 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.

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 relationship between using no releases of radioactive materials that result in significant radiation exposures as a measure and ensuring the protection of public health and safety. "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 I.A.8 (using the definition of AO criteria in use as of 8/31/04). An event is considered an abnormal occurrence if it involves a major reduction in the degree of protection of public health or safety. 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 result in significant radiation exposures

Significant exposures are defined as those that result in unintended permanent functional damage to an organ or a physiological system as determined by a physician, as agreed upon by NRC or Agreement State technical specialists, or our consultants. Radioactive hazardous material exposures only apply to fuel cycle activities. Any event resulting in unintended permanent functional damage to an organ or physiological system compromises public health and safety.

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 radioactive 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 or our consultants.

NRC believes the data collected to meet this strategic outcome is free from bias. NMSS does not look at statistical sampling of data to determine results. Rather, all event data is 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. Although NMSS procedures and NRC regulations associated with event reporting include specific requirements for timely notifications, there is a lag time between when an event occurs and when the consequences of an event are known.

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 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 review events that appear to meet this strategic outcome. At these reviews, staff and management validate the occurrence of these events.

- ***No releases of radioactive materials that cause significant adverse environmental impacts.***[20]

***Verification:*** 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 or waste

(waste are a subset of 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 (using the definition of the AO criteria in use as of 8/31/04).

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 NMSS, the NMED is an essential system used to collect information on such events.

The fuel cycle, materials, spent fuel storage and transportation, and decommissioning 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 also 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 relationship between using no releases of radioactive materials that cause significant adverse environmental impacts as a measure and ensuring the protection of the environment. Releases that have the potential to cause "adverse environmental impact" are those that exceed the limits for reporting abnormal occurrences as given by Abnormal Occurrence Criterion 1.B.1 (normally 5,000 times Table 2 [air and water] of Appendix B, Part 20] using the definition of AO criteria in use as of 8/31/04). An event is considered an abnormal occurrence if it involves a major reduction in the degree of protection of public health or safety. 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 or radioactive materials (for fuel cycle activities, this extends to other radioactive 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 or our consultants.

NRC believes the data collected to meet this strategic outcome is free from bias. NMSS does not look at statistical sampling of data to determine results. Rather, all data is reviewed to determine if the strategic outcome has been met.

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There are two important data limitations in determining this strategic outcome. These include delay time for receiving information and/or the failure of NRC to become aware of an event that causes significant adverse environmental impacts. Although NMSS procedures and NRC regulations associated with event reporting include specific requirements for timely notifications, there is a lag time between when an event occurs and when the consequences of an event are known.

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 were to occur, 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. At these reviews, staff and management validate the occurrence of these events.

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

***Performance Measures:***

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

  ***Materials Safety Target: Less than or equal to 6***
  ***Waste Safety Target: Less than 1***

***Verification:*** This performance measure includes any event involving licensed radioactive materials, and wastes (wastes are a subset of materials) which results in significant radiation exposures to members of the public and/or occupational workers that exceed the dose limits in I.A.1 through I.A.7, of the Abnormal Occurrence 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. This is the criterion in I.A.8 of the Abnormal Occurrence reporting criteria (using the definition of the AO criteria in use as of 8/31/04).

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 NMSS, the NMED is an essential system used to collect information on such events.

The fuel cycle, materials, spent fuel storage and transportation, and decommissioning 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 the headquarters, the regions and in Agreement States, and discussions at all Agreement State and CRCPD meetings.

***Validation:*** There is a logical relationship in using the performance measure of number of events involving radiation exposures to the public and occupational workers from radioactive material that exceed Abnormal Occurrence Criteria I.A., as a measure and ensuring the protection of public health and safety. An event is considered an abnormal occurrence if it involves a major reduction in the degree of protection 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 Abnormal Occurrence criteria I.A.

Events of this magnitude are infrequent. In the unlikely event that an abnormal occurrence should occur, NRC or Agreement State technical specialists or our consultants will confirm whether the criteria were met.

NRC believes the data collected to meet this performance measure is free from bias. NMSS does not look at statistical sampling of data to determine results. Rather, all data, in the form of events, is 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 adverse environmental impacts. Although NMSS procedures and NRC regulations associated with event reporting include specific requirements for timely notifications, there is a lag time between when an event occurs and when the consequences of an event are known.

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.***[21]

  ***Materials Safety Target: Less than or equal to 5***
  ***Waste Safety Target: 0***

***Verification:*** This performance measure is defined as any release to the environment from materials, spent fuel storage and transportation, and decommissioning 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 this 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. For activities of NMSS, the NMED is an essential system used to collect information on such events.
The fuel cycle, materials, spent fuel storage and transportation, and decommissioning inspection programs are key elements in verifying the completeness and accuracy of licensee reports. The

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

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 provide standards for protection against radiation. There is a logical relationship between tracking releases subject to the 30-day reporting requirement under 10 CFR 20.2203(a)(3)(ii) as a measure and 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.

Events of this magnitude 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 was met.

NRC feels the data collected to meet this performance measure is free from bias. NMSS does not look at statistical sampling of data to determine results. Rather, all events data is 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 procedures and NRC regulations associated with event reporting include specific requirements for timely notifications, there is a lag time between when an event occurs and when the consequences of an event are known.

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 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.

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

**Validation and Verification for Goal 2 - Security: Ensure the secure use and management of radioactive materials**

**Nuclear Security and Incident Response**

**Performance Measure 1-Unrecovered losses or thefts of risk-significant radioactive sources is zero.**

**AO Criteria I.C.1** - Any lost, stolen, or abandoned sources the commission has determined to be risk significant and that exceeds the values listed in Table I., Category 2, "Activities Corresponding to Thresholds of Categories," in the International Atomic Energy Agency's Code of conduct on the Safety and Security of Radioactive Sources. This table can be found on page 31, adams accession #: ML0407202460. Excluded from reporting under this criterion are those events involving sources that are lost, stolen, or abandoned under the following conditions: sources abandoned in accordance with the requirements of 10 CFR 39.77(c);sources recovered within 30 days of loss, with sufficient indication that doses in excess of the reporting thresholds specified in A0 criteria I.A.1 and I.A.2 did not occur during the time the source was missing; .

***Verification:*** Losses or thefts of radioactive material ≥ 1000 times the quantity specified in appendix C to part 20 are required to be reported (per 10 CFR 20.2201(a)) by phone to the NRC Headquarters Operations Center or agreement state immediately (interpreted as within 4 hours) after its occurrence becomes known, if persons in unrestricted areas could get an exposure. Should an event meeting the thresholds described above occur, it would be reported through a number of sources, but primarily through this required licensee notification. Events are then entered and tracked in the Nuclear Materials Event Database (NMED) which is an essential system used to collect and store information on such events. Additionally, licensees must meet the reporting and accounting requirements in 10 CFR parts 73 and 74.

The NRC's 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 Agreement States and NRC regions are consistently collecting and reporting such events as received from the licensees, and reporting them. Upon receiving a report, the NRC or agreement state initiates independent investigations that verify the reliability of reported information. NRC investigation teams evaluate the validity of materials event data, in order to assure that licensees are reporting and collecting the proper event data. Any failures of appropriate licensee reporting would be discovered through routine inspection programs. The NRC also holds periodic meetings to validate previously screened events.

10 CFR 20.2201(b) requires a 30 day written report for sources ≥ 10 times the quantity specified in appendix C to part 20, if the source is still missing at that time. 10 CFR 20.2201(d) requires an additional written report within 30 days of a licensee learning any additional substantive information. The NRC has interpreted that this requirement includes reporting recovery of sources.

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

In FY 2005, guidance will be issued by the Office of Nuclear Materials Safety and Safeguards (NMSS) in the form a Regulatory Information Summary (RIS) to clarify the current 10 CFR 20.2201(d) requirement for reporting recovery of a risk-significant source. The Office of State and Tribal Programs (STP) will ask the Agreement States to send copies of the RIS or equivalent to their licensees. In the future, the National Source Tracking System (NSTS) rulemaking will be completed. This rulemaking will codify and clarify reporting requirements for risk significant sources (including reporting time frames) by adding specific requirements to 10 CFR 20.2201 for risk significant sources, and including a requirement for licensees to report the recovery of a lost risk-significant source within 30 days of recovery. In conjunction with this rulemaking, STP procedure SA-300 will be modified to specifically require Agreement States to report the recovery of a risk-significant source immediately to the Headquarters Operations Center (HOO) 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 not expected and would be rare. Attempts to steal or divert materials described above are covered by a parallel measure at the performance goal level. The information reported under 10 CFR Parts 73 and 74 is required so that the NRC is aware of events that could endanger public health and safety or national security. Any strategic-plan-level failures would result in immediate investigation and follow-up.

If an event subject to the reporting requirements described above were to occur, 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. At these reviews, staff and management validate the occurrence of these events.

**Performance Measure 2-Number of security events and incidents that exceed the Abnormal Occurrence Criteria I.C. 2-4 is less than or equal to 4**

**AO Criterion I.C.2**- A substantiated case of actual or attempted theft or diversion of licensed material or sabotage of a facility.

***Verification:*** Licensees are required to call the NRC to report any breaches of security or other event that may potentially lead to theft or diversion of material or sabotage at a nuclear facility within 1 hour of its occurrence. The NRC's safeguards requirements are described in Section 73.71 of 10 CFR Part 73, "Physical Protection of Plants and Materials," and Appendix G to 10 CFR Part 73, "Reportable Safeguards Events." The Information Assessment Team comprised of NRC Headquarters and Regional staff would conduct an immediate assessment for any significant events to determine what further actions are needed, including coordination with the intelligence community and law enforcement. The licensee is also requested to file a written report within 30 days of the incident to describe the incident and the steps that the licensee took to protect the

nuclear facility. This information would enable the NRC to adequately assess whether radiological sabotage has occurred. Any strategic plan failure results in immediate investigation and follow-up.

***Validation:*** The events to be reported are those that endanger nuclear reactor facilities by deliberate acts of theft or diversion of material or sabotage directed against those facilities. Events of this type are extremely rare. 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/or NRC to mitigate the situation and prevent recurrence. The investigation ensures the validity of the information and assesses the significance of the event.

**AO Criterion I.C.3** - Any substantiated loss of special nuclear material or any substantiated inventory discrepancy that is judged to be significant relative to normally expected performance, and that is judged to be caused by theft or diversion or by substantial breakdown of the accountability system.

***Verification:*** Events associated with this measure must be recorded within 24 hours of the identified event in a safeguards log maintained by the licensee. The log must be retained 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. A determination of whether a substantiated breakdown has resulted in a vulnerability to radiological sabotage, theft, diversion, or unauthorized enrichment of special nuclear material is made by the NRC. When making substantiated breakdown determinations, the NRC evaluates the materials event data in order to ensure that licensees are reporting and collecting the proper event data.

***Validation:*** 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, material control, or accounting system has, in actuality, resulted in a vulnerability.

**AO Criterion I.C.4** - Any 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.

***Verification:*** Licensees are required to report to the NRC, immediately after occurrence becomes known, any known breakdowns of physical security, based on the requirements in Section 73.71 of 10 CFR Part 73, "Physical Protection of Plants and Materials," and Appendix G to Part 73, "Reportable Safeguards Events." 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's initial telephonic notification must be followed within a period of 30 days by a written report submitted to the NRC.

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Once each quarter, the NRC staff evaluates all of the reported events based on the criteria contained in 10 CFR 73.71, prepares a summary of the evaluation results and reports the findings in the NRC office operating plan. The NRC also reports events to the public on an annual basis in the "Safeguards Summary Event Lists," NUREG-0525, 1999, Vol. 3. While all details of the event (sensitive security safeguards information) may not be available to the public, the fact that an event has occurred is made public.

Breakdowns of physical protection resulting in a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials or radioactive waste are recorded within 24 hours in a safeguards log maintained by the licensee. The log must be retained as a record for 3 years after the last entry is made or until termination of the license. No explicit reporting requirements exist for substantiated breakdowns of physical protection. The NRC relies on its safeguards inspection program to ensure the reliability of recorded data. The NRC uses the inspection program information to determine whether a breakdown of physical protection has occurred. The NRC evaluates the event data when making a determination whether a breakdown of physical protection has occurred in order to ensure that licensees are reporting and collecting the proper event data.

***Validation:*** The events to be reported are those that threaten nuclear activities by deliberate acts, such as radiological sabotage, directed against reactor facilities. If a licensee reports such an event, the Information Assessment Team evaluates and validates the initial report and determines what further actions may be necessary. Tracking breakdowns of physical security gives an indication of 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, in actuality, resulted in a vulnerability.

**Performance Measure 3-Number of significant unauthorized disclosures of classified and/or safeguards information is zero.**

Any significant unauthorized disclosures of classified and/or safeguards information (significant is defined as causing damage to national security or public safety).

***Verification:*** Any alleged or suspected violations of the Atomic Energy Act, Espionage Act, or other Federal statutes related to classified or safeguards information are required to be reported to the NRC under the requirements of 10 CFR 95.57(a) (for classified information) and 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 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 to 10 CFR Part 73. The regional administrator would then contact the Division Nuclear Security at NRC headquarters, which would assess the violation and notify other offices of the NRC as well as other Government agencies, as appropriate. A determination would be made as to whether the compromise caused damage to the national security or public health and safety. Any unauthorized disclosures or compromises of classified or safeguards information causing damage to the national security or public health and safety would result in immediate investigation and follow-up by the NRC. In addition, NRC inspections will verify that licensees' routine handling of classified and safeguards information (including safeguards information subject to modified handling requirements) conforms to established security information management requirements.

***Validation:*** Events collected under this performance measure are unauthorized disclosures of classified or Safeguards Information causing damage to the national security or public health and safety. Events of this magnitude are not expected and would be rare. If such an event were to occur, it would result in 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 in order to ensure that licensees are reporting and collecting the proper event data.

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**Verification and Validation for Goal 3 - Openness: Ensure openness in our regulatory process**

**1. Percentage of surveyed stakeholders that perceive the NRC to be open in its processes is equal to or greater than the Federal Agency Mean.**

***Verification:*** Based on stakeholder comments associated with the development of the FY 2000-2005 Strategic Plan, the Commission approved the use of a survey instrument to baseline public satisfaction and document the public's general concerns with the NRC. To this end, the Commission approved the use of the American Customer Satisfaction Index (ACSI). Established in 1994, the ACSI is produced through a partnership of the University of Michigan Business School, the American Society for Quality, and an international consulting firm, CFI Group. The Treasury Department currently oversees the contract that allows ACSI to measure customer satisfaction for certain agencies. The primary advantages of participating in this index are (1) that the ACSI survey is an established and accepted measurement tool, (2) that the survey can be conducted for specific segments in a timely manner (approximately 4 to 6 months) at reasonable cost, (3) that it allows the identification of specific actions in response to stakeholder concerns and comments, (4) that we may contract through an interagency agreement, requiring less resources than a commercial contract, and (5) OMB has issued Paperwork Reduction Act clearances for ACSI surveys conducted for Federal agencies.

***Validation:*** An ACSI survey would have a standard sample size of approximately 250 individuals per local area surrounding each nuclear power plant. NRC staff will work with ACSI to identify the stakeholder segment to be surveyed, develop a list of possible participants in the segment, and tailor the questions about NRC activities. Data are usually obtained from telephone interviews with customers. The index provides a database of questions that can be tailored to customer satisfaction activities of interest to NRC. The survey questions will be focused in a manner that will provide information relevant to our performance as an effective and efficient regulatory agency. The survey should contain questions that ascertain stakeholder views concerning the quality of NRC's openness in the following areas: 1) credibility as a regulator, 2) effectiveness in clearly communicating factual information and 3) responsiveness to stakeholders' concerns.

The results of this approach could be used to determine what changes to consider related to interactions with and information provided to those stakeholder groups.

For the purpose of this measure, the "Federal agency mean" will include scores of similar regulatory agencies surveyed in the past such as FAA, DOT, FEMA, OSHA, IRS and FDA.

**2. Percentage of selected openness output measures that achieve performance targets is equal to or greater than 70%.**

***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, 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, 70% 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 directors' who will review and approve the data submitted to them by their staff.

**Verification and Validation for Goal 4 - Effectiveness: Ensure that NRC actions are effective, efficient, realistic, and timely**

**Measure 1 - Programs assessed during the fiscal year using the Program Assessment Rating Tool (PART) receive a minium score of 85 from OMB.**

***Verification:*** The Program Assessment Rating Tool (PART) is a systematic method of assessing the performance of program activities across the Federal government. As a diagnostic tool, the main objective of the PART review is to improve program performance. PART assessments help link performance to budget decisions and provide a basis for making recommendations to improve results.

The PART is composed of a series of questions designed to provide a consistent approach to rating programs across the Federal government, relying on objective data to assess programs across a range of issues related to performance. The PART also examines factors that the program or agency may not directly control but may be able to influence. The formalization of performance assessments through this process is intended to develop defensible and consistent program ratings.

The questions that make up the PART are generally written in a *Yes/No* format. They require the user to explain the answer briefly and to include relevant supporting evidence. Responses must be evidence based and not rely on impressions or generalities. A *Yes* answer must be definite and

reflect a high standard of performance. Where hard evidence is unavailable, assessments will rely more on professional judgment.

***Validation:*** PART ratings from OMB are independent, third-party findings regarding the effectiveness of the programs being reviewed. A program receiving a minimum score of 85 is considered by OMB to be effective.

**Performance Measure 2 - The percentage of selected processes that deliver desired efficiency improvement is > 70%. (Goal is > 90% 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% of the selected processes must have achieved their targets.

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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's who will review and approve the data submitted to them by their respective staff.

**Performance Measure 3 - Number of instances where licensing or regulatory programs unnecessarily impede the safe and beneficial uses of radioactive materials.**

**Target:** **To be determined in FY 2005 for implementation in FY 2006.**

***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 sustain ability

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.

The metric for this performance measure should not be zero, so that it can provide an early indicator to program managers regarding the likelihood of tripping the strategic outcome of "no significant impediments" and allow program managers an opportunity to make appropriate programmatic adjustments. During FY 2005, the program offices will develop a baseline for this measure to help determine an appropriate metric for FY 2006, when the measure will take effect. The baselining process will include development of additional programmatic examples to define a consistent threshold for impeding at the strategic and performance levels.

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.

**Verification and Validation for Goal 5 - Management: Ensure excellence in agency management to carry out the NRC's strategic objective**

**Performance Measures 1 - Percentage of selected NRC management programs that delivered intended outcomes is equal to or greater than 70%**

***Verification:*** The NRC has established two outcomes for management excellence which are 1) continuous improvement in NRC's leadership and management effectiveness in delivering the mission, and 2) a diverse, skilled workforce and an infrastructure that fully support the agency's mission and goals. To this end, 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's who will review and approve the data submitted to them by their respective staff.

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

***Validation:*** Overall actual performance will be measured by determining the percent of the five (5) programs that delivered their intended management outcomes. At a minimum, in order to meet the overall target of 70%, 4 programs must have achieved 70% of the activity targets.

**Performance Measure 2 - The percentage of selected processes that deliver desired efficiency improvement is equal to or greater than 70%. (Goal is > 90% 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.

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, 70%, 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's who will review and approve the data submitted to them by their respective staff.

## MANAGEMENT CHALLENGES

This appendix lists the nine most serious management and performance challenges facing the Agency, as identified by NRC's Office of the Inspector General in a memorandum dated October 4, 2004. This appendix also describes the actions being taken by NRC to address these challenges and related milestones. Senior management continues to address most of these challenges through the strategic planning process.

**CHALLENGE 1**: Protection of nuclear material and facilities used for civilian purposes.

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR REACTOR SAFETY MAJOR PROGRAM**<br>The NRC is re-analyzing the capabilities and physical protection requirements for NRC-licensed facilities. Representative nuclear power plant structures have been analyzed to determine their vulnerability to aircraft attack. In addition, the NRC has used a risk-informed approach to further assess the potential vulnerabilities of civilian nuclear facilities and activities to the effects of various attack scenarios. Research products will provide data to assist decisionmakers in identifying practical mitigation strategies and allocating resources.<br><br>**Status**: The Agency coordinated this assessment with counterparts in the Homeland Security Council, Department of Homeland Security, Federal Bureau of Investigation, Department of Energy, Defense Threat Reduction Agency, Department of Defense, and other agencies. The staff is pursuing a number of additional efforts related to generic issues to support the vulnerability assessments. Specifically, these efforts include site-specific aircraft impact vulnerability analysis, cyber threat analysis, research on terrorist attack scenarios, effects of fire analysis, small arms conflict situation analysis, radiological consequences from attacks on nuclear power plants, protective strategies for attacks on nuclear power plants, spent fuel testing, and characterization of insider threats. These efforts will continue to provide the technical basis for any new or revised mitigative measures for protecting radioactive materials and facilities.<br><br>In FY 2003, the staff completed detailed analyses of the capability of two representative nuclear power plants to withstand aircraft attack. NRC shared preliminary results of these analyses with cognizant federal agencies and affected licensees. The industry is evaluating and implementing prudent follow up action. Readily available mitigating strategies were implemented by industry and verified by NRC inspection.<br><br>In April 2003, the NRC issued orders (effective October 29, 2004), that imposed supplemental requirements for implementing the design-basis threat (DBT). In FY 2004, the NRC developed implementing guidance for the design basis threats (DBT) against which power plants and selected fuel cycle facilities must be able to defend and issued further orders to require specific security enhancements for a variety of nuclear facilities and activities, including spent fuel storage and radioactive material transport. | FY 2003 - FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC issued additional orders in January 2003 to enhance access authorization and in April 2003 to control security force fatigue and to enhance training and qualifications for security force members.<br><br>Pursuant to the April 29, 2003 orders, each power reactor licensee submitted a revised Physical Security Plan, Contingency Response Plan, and Security Force Training and Qualification Plan for NRC review and approval. In October 2004, NRC completed its review of the plans to support implementation in accordance with the requirements of the orders.<br><br>In early FY 2004, the NRC staff completed inspections of interim compensatory measures imposed by order on February 25, 2002. In FY 2004, the NRC revised the baseline inspection program for the physical protection cornerstone of the reactor oversight process. The revised baseline program reflects changes imposed by orders in the areas of access authorization, fatigue, security officer training and qualification; and the design basis threat. Implementation of the revised inspection program will be phased in during FY 2004 through FY 2006, consistent with the implementation schedules for the revised requirements. The NRC is developing improved performance indicators and a revised Significance Determination Process to more effectively measure license security performance.<br><br>In addition, in FY 2004, the NRC completed a pilot program to enhance force-on-force exercises at power reactors. The pilot program reduced artificialities, and increased the realism of the exercises. The results of the expanded pilot exercises, conducted at 15 volunteer commercial nuclear power reactors, were utilized to revise the staff's exercise program and improve NRC's processes for assessing the licensees' readiness to protect against the design basis threat. NRC met routinely with representatives of industry to catalog and discuss lessons learned from these exercises, documenting both staff and industry perspectives. The program was intended to enhance the effectiveness and realism of the exercises and provides the basis for resuming the performance evaluation program with substantially increased frequencies of exercises (from every 8 years to every 3 years). The full program was implemented beginning in FY 2005. | |
| The NRC re-analyzed the processes used to authorize access to licensed facilities. Activities will include evaluating and improving the adequacy and robustness of existing access authorizations, determining the feasibility of integrating a national security check program, and determining the feasibility of obtaining overseas criminal history checks.<br><br>**Status:** Additional security measures for access authorization/insider risk for power reactors were issued in January 2003. Additional security measures for access authorization at other licensed facilities were issued in August 2004. The NRC continues to consult and coordinate with other Federal agencies to enhance access authorization. The staff will initiate a rulemaking on access authorization in FY 2005. | FY 2003 - FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC will reassess its emergency preparedness activities and response capabilities. Activities will include evaluating the NRC's response capabilities to respond to multiple events, including mobilizing and responding to a national threat; evaluating regulatory requirements for emergency preparedness programs; increasing coordination with stakeholders related to emergency preparedness and response; evaluating the adequacy of policy and programs for public protective actions; developing inspection guidance on licensees' integration of security and emergency plans to assess licensees' capabilities to respond to attacks; and enhancing intelligence community communications.<br>**Status:** The reassessment of emergency preparedness activities and response capabilities includes a review of incident response operations, which was completed in early FY 2003; implementation of the Homeland Security Advisory System (HSAS) was completed in the last quarter of FY 2002; a revised Continuity of Operations (COOP) plan was completed in FY 2003; development of response protocols with Federal and State agencies will continue throughout the planning period; the Operations Center Information Management System (OCIMS) requirements assessments were completed late FY 2003, and the upgrade of OCIMS data and display subsystems is scheduled for completion during FY 2004; the Defense Messaging Services (DMS) system test was completed during FY 2003; and the Incident Response Program Review was completed in FY 2003. Beginning in FY 2005, the Emergency Response Data System (ERDS) will be replaced with a system utilizing the latest communications platforms; the ERDS upgrade will be completed in FY 2006. NRC is also developing an enhanced secure electronic LAN; the effort began in FY 2004 and a pilot will be completed in 2005.<br><br>In June, 2004, the NRC reorganized by integrating its emergency preparedness and indident response programs. This will allow the NRC to more effectively sustain its interaction, communication, and coordination related to homeland security, emergency response, and integrated response planning with other Federal, State, and local agencies, as well as the international community. The NRC continues to work with DHS and other Federal agencies on the revision of Federal response plans and development and administration of a National Incident Management System and a unified National Response Plan in accordance with Homeland Security Presidential Directive 5 (Management of Domestic Incidents).<br><br>On August 4, 2004, NRC held a public meeting to address the Agency's integrated approach toward safety, security, and emergency response, and the challenges of communicating with the public on security matters without releasing sensitive information. Participants included senior NRC management and staff and a broad spectrum of stakeholders, including: members of the public, representatives from several non-governmental organizations, the media, and a U.S. Senate office. A teleconferencing capability was used to include members of the public who were unable to come to NRC headquarters. During several question-and-answer sessions and an extended public comment period, other NRC security initiatives were discussed, including the NRC review and approval of security plans, baseline security inspection program, force-on-force exercises, security response and preparedness, regulatory stability, and integrated response planning. NRC obtained many comments and suggestions from the public for follow up action. The meeting contributed significantly towards increasing the Agency's public outreach and meeting the Agency's openness goals in the homeland security area. | FY 2003 - FY 2005 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC will conduct a comprehensive reassessment to evaluate the policies and procedures related to the protection of the Agency's critical infrastructure at headquarters, regional offices, and resident inspector offices. This will include evaluating the adequacy of contingency plans to maintain continuity of operations (COOP) during terrorist events that are capable of disrupting response activities, as well as the Agency's emergency response planning, staffing, and training for handling protracted events at multiple locations as a result of terrorist activities.<br><br>**Status:** The staff completed a comprehensive physical security assessment of the NRC's infrastructure in FY 2002, and has implemented most of the recommendations from this assessment. The staff completed an additional assessment of the physical security of the NRC headquarters facilities in the second quarter of FY 2003. The relocation of the Sensitive Compartmented Information Facility (SCIF) to the fourth floor of Two White Flint North was completed during FY 2003.<br><br>The NRC's Incident Response Operations Center was also significantly upgraded in FY 2004 including: improved emergency response procedures and significant equipment upgrades (display and data sub-systems, secure telephone and fax units, upgraded satellite phones and an improved teleconferencing system). An alternate incident response center has also been upgraded at one of NRC's regional offices. It has the capabilities of the headquarters operations center, in the event of a loss of that facility. | FY 2003 - FY 2005 |
| **NUCLEAR MATERIALS AND WASTE SAFETY MAJOR PROGRAM**<br>The NRC will continue to re-analyze its threat assessment framework and threat characterizations, which are used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft or diversion of strategic special nuclear material. The NRC will also increase its interactions with other Federal agencies to ensure coordination of national infrastructure decisions that may impact activities in this area.<br><br>**Status:** The NRC has supplemented the DBT for Category I fuel facilities taking into consideration threat characteristics for other comparable facilities and activities identified in coordination with comparable Federal agencies. The NRC is continuing its actions to enhance its liaison activities with Federal agencies and other stakeholders in order to ensure timely coordination of decisionmaking regarding threats to nuclear facilities, activities, and the critical infrastructure. Force-on-force exercises for Category I facilities are scheduled beginning FY 2005. Consistent with the orders supplementing the DBT, each licensee for Category I fuel cycle facilities has submitted for NRC staff approval complete revisions to their physical security plan, contingency response plan, and training and qualification plan. The NRC completed a review of all these plans. In FY 2004, in conjunction with implementation of the revised DBT, the NRC established additional personnel security measures to mitigate the risk of insiders' involvement in acts of radiological sabotage or theft or diversion of special nuclear material. | FY 2003 - FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC will continue to re-analyze the vulnerabilities, physical protection, and safeguards programs and requirements for NRC-licensed facilities and radioactive materials. Activities include re-examining the Agency's statutory and regulatory requirements and guidance on security and safeguards for facilities, evaluation of the need for additional security and safeguards requirements at NRC-licensed facilities and materials currently not covered by existing physical protection regulations, and examination of the need for physical protection against chemical and/or industrial sabotage at NRC-licensed facilities.<br><br>**Status:** Preliminary vulnerability assessments to support development of additional security measures for materials licensees were completed in FY 2003 for panoramic irradiators and manufacturers and distributors of high risk radioactive sources. Other vulnerability assessments pertaining to materials licensees were completed in stages through FY 2004 for other lower-risk radioactive sources. Further, additional facility- or material- specific VAs, are being conducted in FY 2005 to examine the potential consequences beyond those that are already evaluated in the licensing process or that could result from the loss of control of radioactive material. Vulnerabilities of structures, process and protective systems, security operations and physical protection systems, information systems, MC&A systems, and access control systems are being assessed, as applicable. Ultimately, the staff will integrate the results of the individual VAs into one risk-informed VA for materials licensees to support decisions about protective strategies for each type of facility.<br><br>The results of the vulnerability assessments have been and will continue to be used to inform decision makers in identifying practical mitigating strategies and new requirements as appropriate. The NRC has enhanced security requirements for licensees holding source material designated as high risk, high priority. The NRC staff continues to work with States to develop appropriate enhancements for lower priority high-risk sources. Working with the Homeland Security Council, the NRC's oversight committees in Congress, the Administration, and other Federal agencies, NRC continues to support legislative proposals to enhance security of nuclear facilities and materials. | FY 2003 - FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC will also work with other Federal agencies (such as the Department of Homeland Security (DHS), Federal Bureau of Investigation (FBI), Department of Defense (DOD)) and States to enhance and coordinate U.S. detection, prevention, and response for terrorist actions against NRC-regulated facilities and activities.<br><br>**Status:** The NRC continued to work concurrently with DHS and other Federal and State partners to enhance detection, prevention and response in FY 2004. Actions included response to changes in the homeland security national threat level, active participation in the development of National Infrastructure Protection Plan and Critical Infrastructure Protection Plan in accordance with Homeland Security Presidential Directive (HSPD) HSPD-7, development of National Incident Management System and National Response Plan in accordance with HSPD-5, and integrated response planning at the national and local levels working in conjunction with DHS. NRC has exercised its response procedures through several interagency exercises including Unified Defense 04, Forward Challenge 04, Determined Promise 04/Amalgam Virgo 04, and other tabletop exercises. In addition, NRC integrated the emergency preparedness function with the incident response program to enhance the effectiveness of the Agency's approach to this area. The NRC will continue to enhance preparedness with Federal and State agencies, including improving its coordination with DHS, law enforcement agencies, and the intelligence community. Significant FY2005 actions include implementation of the National Response Plan and the National Incident Management System, participation in several interagency exercises, and continued upgrades to the incident response program. | FY 2003 - FY 2006 |
| The NRC will re-analyze the vulnerabilities and physical protection requirements for NRC-licensed facilities (such as spent fuel storage installations) and transportation of special nuclear material. The staff will also conduct an assessment of the ability of spent fuel storage casks and radioactive material transportation packages to withstand various attack scenarios. In addition, the Agency will reassess its capabilities for first response, independent assessment, and oversight of incidents at licensee facilities.<br><br>**Status:** The staff continues to assess potential vulnerabilities associated with spent fuel storage and radioactive material transportation. The staff used the early results of this work to issue orders to operating ISFSIs to implement safeguards and security compensatory measures. The vulnerability assessments are nearing completion and will result in the development or enhancement of mitigative strategies during FY 2005 for any identified vulnerabilities. The staff is currently using the early results of this work to identify and require necessary enhancements to security measures for spent fuel storage and transportation and materials licensees; the staff continues to coordinate with the Department of Transportation and other Federal and State partners to promote a coherent national approach to enhanced transportation security. | FY 2003 - FY 2005 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| The NRC will conduct or support the following efforts:<br>• Continue the studies of the consequences from potential terrorist attacks to selected transportation packages (non-spent fuel and spent fuel) and selected spent fuel transportation and spent fuel storage casks and the consequences of an irradiator explosion.<br>• Continue to support the comprehensive safeguards and security vulnerability assessments of fuel cycle and materials licensees, spent fuel and non-spent fuel transportation packages, and spent fuel storage casks.<br>• Issue regulatory improvements to address any significant weaknesses identified during the vulnerability assessments.<br>• Review facility security plans to ensure that the facilities protect against identified threats.<br>• Require remaining materials licensees to implement appropriate compensatory measures. Review licensee compliance with the interim compensatory measures; assess proposals to revise regulatory requirements (e.g., rulemaking, orders) and guidance (e.g., information notices, NUREGs) in the area of security.<br>• Continue to participate in the interagency and international efforts to address life-cycle management of radioactive sources.<br>• Continue to increase security of export/import controls for high-risk sources.<br>• Continue to work in conjunction with DOE to improve source tracking by developing a rational web based system to track risk significant radioactive sources. | FY 2003 - FY 2006 |

**CHALLENGE 2:** Development and implementation of an appropriate risk-informed and performance-based regulatory oversight approach. (GAO identified a comparable challenge.)

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR REACTOR SAFETY MAJOR PROGRAM**<br>Publish report on lessons learned from implementation of the reactor oversight process.<br><br>**Status**: The staff last issued this report in SECY-04-0053, dated April 6, 2004. The staff plans to continue to perform annual self-assessments and report the results to the Commission. | FY 2005 |
| Develop a proposed rule to risk-inform 10 CFR 50.46.<br><br>**Status**: The staff is currently working on proposed rulemakings to the requirements in 10 CFR 50.46 for analysis of design basis loss-of-coolant accidents (LOCAs). These requirements specify the assumptions, methods, and acceptance criteria for use in evaluating the adequacy of the emergency core cooling system (ECCS) for design basis LOCAs. The development of a risk-informed approach to 10 CFR 50.46 has the potential to improve the effectiveness of regulatory oversight related to ECCS performance, while maintaining safety. In July 2002, the staff completed the technical work to assess the practicality of a possible rulemaking associated with the technical requirements of 10 CFR 50.46, Appendix K to 10 CFR Part 50, and General Design Criterion (GDC) 35. The Commission provided guidance to the staff in an SRM dated March 31, 2003, on SECY-02-0057. In response to this SRM, the staff prepared SECY-04-0037, dated March 3, 2004, in which the staff requested direction and additional guidance on policy issues that would facilitate resolution of identified technical issues. On July 1, 2004, the Commission issued its SRM on SECY-04-0037, providing technical guidance and direction to the staff to complete the proposed rule by December 30, 2004. On August 2, 2004, the staff published a conceptual basis and draft language for the proposed rule. A public meeting was held on August 17, 2004. The staff evaluated information received at the public meeting and provided the Commission with a memorandum summarizing the proposed rule and providing draft rule language on October 22, 2004. The staff met with the ACRS subcommittee on October 28, and with the full committee on November 4, 2004. The staff met to discuss final details about the rulemaking package, and obtain the ACRS letter, during the December 2, 2004, ACRS meeting. | FY 2002 - FY 2005 |
| Issue Revision 1 to Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment In Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis."<br><br>**Status**: The staff published Revision 1 to RG 1.174 as DG-1110 for public comment on July 23, 2001. Revisions 1 of RG 1.174 and SRP Chapter 19 were issued in November 2002 with relatively minor enhancements. No significant items have been identified since that time that would cause the staff to revise these documents. | Complete |
| Modify the scope of special treatment requirements and submit the final rule (10 CFR 50.69) to the Commission.<br><br>**Status**: On June 30, 2004, the final rulemaking package for 10 CFR 50.69 (SECY-04-0109) was sent to the Commission. The Commission approved the final rule, with some modifications, in an affirmation session on October 7, 2004. | Complete |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Provide a draft rule to the Commission that risk-informs the pressurized thermal shock requirements in 10 CFR 50.61.<br><br>**Status:** The staff will be completing the technical basis report by mid- CY 2005. This report will have undergone an external peer review as well as a technical review by the ACRS. Based on this technical report, a rulemaking will be proposed to implement a risk-informed revision to the pressurized thermal shock requirements in 10 CFR 50.61. A rulemaking plan is scheduled to be submitted to the Commission by early CY 2006. | FY 2004 - FY 2005 |
| Issue the regulatory guide and standard review plan for the ASME standard for probabilistic risk assessment quality.<br><br>**Status:** The staff has issued Regulatory Guide 1.200 for trial use (February 2004) to provide guidance to licensees on the quality needed for PRA information used in risk-informed applications. Five licensees have volunteered to be pilots. Two pilot applications have been completed. The remaining are expected to be completed in early CY 2005. In early CY 2005, ASME plans to issue an addendum to its standard based on the lessons learned from the pilots. Pending the timely issuance of ASME's revised standard, RG 1.200, Revision 1, is scheduled to be issued for use in late CY 2005. | FY 2004 - FY 2006 |
| Develop a plan for improving coherence among risk-informed activities.<br><br>**Status:** The staff formulated a proposed process for a risk-informed coherence effort that provides the guidelines and criteria for translating the Commission's high-level guidance into specific activities. The staff will finalize the plan to account for internal comments and feedback. | FY 2004 - FY 2005 |
| Complete Significance Determination Process (SDP) Task Force action items and make appropriate adjustments.<br><br>**Status:** Over the past 2 years, the staff has made major improvements to the SDP by enhancing the operations SDP, Phase 2 notebooks; developing new SDPs for shutdown operation, containment, and maintenance; making a fundamental and comprehensive improvement to the fire protection SDP; and establishing a significant task force to explore methods to account for external event initiators in the SDP. In making this notable progress, the staff interfaced with pertinent stakeholders and considered their input, held a number of public workshops, and developed and implemented staff training. Additional ongoing enhancements include further standardization and upgrading of the SDP Phase 2 notebooks, and developing and implementing three parallel approaches to account for external event initiators. It is also notable that the staff is exploring improvements to the Reactor Oversight Program to clarify expectations and thereby improve the timeliness of publishing SDP results. | Ongoing |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Resolve issues related to the requests for additional information on the Industry Risk Management Guide, the Combustion Engineering pilot proposal, TSTF-424, and the STP pilot submittals.<br><br>**Status:** The industry provided a draft risk management guidance document and the Combustion Engineering Owners Group single system pilot proposal, Technical Specifications Task Force (TSTF) No. 424, on January 21, 2003. In addition, the South Texas Project (STP) submitted a whole-plant proposal in support of the draft regulatory guide (DG-1122) on PRA quality in June 2003. The NRC staff has issued requests for additional information for the Industry Risk Management Guide, the Combustion Engineering pilot proposal, TSTF-424 and STP submittals, and briefed the ACRS full committee in May 2004. | FY 2005 |
| Develop a risk-informed environment for the NRC staff.<br><br>**Status:** The staff reviewed the results of an evaluation of the current environment (ML022460161) and implemented several pilot projects designed to test recommendations from the evaluation report. A report documenting these findings has been completed. A plan for implementing changes in the reactor program to enhance the current environment for risk-informed regulation has been developed. The plan was presented to the NRR Leadership Team in July 2004 and the team is considering which, if any, of the initiatives to pursue in FY 2005. | FY 2004 - 2005 |
| Develop an alternative risk-informed and performance-based fire protection standard for nuclear power plants.<br><br>**Status:** An industry standard, NFPA 805, was issued in April 2001. The final rule to incorporate NFPA 805 in 10 CFR Part 50 was published in the *Federal Register* in June 2004. The staff is working with the industry to complete development of the implementation guidance for NFPA 805 that will be endorsed by the NRC via a regulatory guide. The regulatory guide was published in the *Federal Register* for a 60-day public comment period in October 2004. The final regulatory guide is expected to be published in February 2005. The industry is preparing a revision to the implementation guide to incorporate additional NRC guidance. | FY 2005 |
| **NUCLEAR MATERIALS AND WASTE SAFETY MAJOR PROGRAM**<br>Solicit public and other stakeholder views in developing revisions to the fuel cycle facilities oversight program.<br><br>**Status**: During FY 2002, the NRC canceled the public outreach and major program revisions to the fuel cycle oversight process to allow for development and incorporation of additional risk information. The staff completed its plan for process changes in FY 2002. | Complete |
| Update Integrated Issue Resolution Status Report (IIRSR) associated with proposed high-level waste repository.<br><br>**Status**: The NRC published the IIRSR as NUREG-1762 in July 2002. The update is scheduled for the first quarter of FY 2005. | FY 2004 - FY 2005 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Develop case studies in the Nuclear Materials and Waste Safety Major Program to test screening criteria and develop draft risk guidelines.<br><br>**Status**: The staff has completed its development of case studies screening criteria (now referred to as screening considerations) and risk guidelines. This activity is complete. | Complete |
| Develop and conduct training in application of risk analysis.<br><br>**Status**: A suite of courses in risk analysis for materials and waste has been developed. The basic course, P-400, Introduction to Risk Assessment for NMSS, is offered semi-annually (April and July 2005). P-406, Human Error Analysis/Human Reliability Analysis, was piloted in FY 2003 and will be offered again May 17-19, 2005. Course P-209, Layer of Protection Analysis, was also conducted in FY 2004. The other courses in this series will be offered as needed. | FY 2002 - FY 2006 |
| Conduct a probabilistic risk assessment for dry cask storage. Issue draft report on screening analysis.<br><br>**Status**: The draft of the pilot dry cask storage PRA is undergoing final edits and changes to reflect an updated cask drop analysis. The draft PRA will be issued for public comment in August 2005. The PRA will be finalized and issued as a NUREG in January 2006. | FY 2002 - FY 2006 |
| Identify and risk-inform NMSS regulatory applications amenable to increased use of risk insights.<br><br>**Status:** Amenable applications within the scope of currently planned activities will be identified using criteria and methods in the draft guidance on risk-informed decision-making for materials and waste applications. | FY 2005 - FY 2006 |
| Revise the Licensee Performance Review process (MC 2604) to make it more timely and efficient, and revise the guidance documents governing the implementation of the fuel cycle inspection program (MC 2600).<br><br>**Status:** The staff completed its revision of MC 2064 on June 27, 2002, followed by MC 2600 on September 30, 2002. | Complete |
| Revise fuel cycle inspection procedures.<br><br>**Status:** In FY 2004 staff completed revision of inspection procedures for fuel cycle facilities by incorporating Chapter 2630 into MC 2600. These revisions incorporate risk-informed and performance-based approaches, and ensure compatibility with new 10 CFR Part 70 requirements. An integration meeting with Region II was held in August 2004. Application of these new procedures will be initiated in FY 2005. | Complete |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Develop guidance document to aid in using a risk-informed decision-making process on applicable NMSS regulatory issues.<br><br>**Status:** The staff completed a preliminary draft guidance document, "Risk-Informed Decision-Making for Materials and Waste Applications." This guidance will be tested and evaluated as NMSS regulatory applications make use of it, where appropriate. Lessons learned will be factored into modification of the draft guidance before issuance. | FY 2003 - FY 2005 |
| Revise Fuel Cycle Oversight Program in accordance with new 10 CFR Part 70 risk-informed regulatory requirements.<br><br>**Status:** Work is in progress to develop and implement risk-informed inspections, risk significance of findings and events, and more effective and predictable assessment of licensee performance. | FY2004 - FY2006 |
| Make appropriate use of human reliability methods in the materials and waste regulatory programs.<br><br>**Status:** A scoping and feasibility study of human reliability analysis development and application needs across all materials and waste activities was completed in FY2004. This study is to be used to prioritize actions to address identified applications of human reliability methods. | FY2005 - FY2006 |
| Make use of risk-insights in the regulation of industrial and medical use of nuclear byproduct materials.<br><br>**Status:** Several guidance documents were revised to incorporate risk insights, specifically those addressing technical assistance requests, Consolidated Guidance about Materials Licensees (NUREG-1550), and Inspection Manual Chapter 2800, "Materials Inspection Program". | FY2005 - FY2006 |
| Make use of risk insights in the regulation of high-level waste and repository safety.<br><br>**Status:** The Risk Insights Baseline Report was completed in FY 2004. This report was used to focus independent assessments on the more risk-significant issues in DOE's pre-licensing program. | FY2004 - FY2005 |
| Make use of risk insights in the regulation of decommissioning.<br><br>**Status:** In FY 2004 staff completed follow-on to the evaluation of implementation issues for the License Termination Rule (10 CFR Part 20 Subpart E), developed a regulatory issues summary to inform stakeholders of options for resolution, and developed plans for further risk-informing the implementation of the rule. The staff developed a prioritization scheme to focus resources on sites of greatest risk or other adverse impact. The scheme will be similarly used during the license application review. | Complete |

**CHALLENGE 3:** Identification, acquisition, and implementation of information technologies. (GAO identified a comparable challenge.)

| *Actions/Milestones* | *Schedule* |
|---|---|
| Complete updates and revisions to the NRC's Automated Information Systems (AIS) Security Policy.<br><br>**Status:** Issued final draft, revised policy and handbook in FY 2003. | Complete |
| Enhance the interim information systems security incident response procedures and enhance the vulnerability patch dissemination and tracking process.<br><br>**Status:** Incorporated revised policies into MD 12.5 in FY 2003. | Complete |
| Formally specify the NRC firewall policy.<br><br>**Status:** Issued updated firewall policy in FY 2003. | Complete |
| Define and pilot secure INTRANET solution that will provide the capability for NRC users to process and protect their sensitive information using the Agency's network.<br><br>**Status:**<br>Conducted market survey in FY 2003.<br>Conduct pilot.<br>Determine requirements to field secure INTRANET capabilities to all NRC users. | <br><br><br>Complete<br>FY 2005<br>FY 2005 |
| Agencywide Documents Access and Management System (ADAMS)<br><br>**Status:** Released ADAMS Version 4.1 in FY 2004, including new password protections.<br>**Status:** Release ADAMS Version 4.3 in FY 2005 to enhance functionality. | <br><br>Complete<br>FY 2005 |
| External WEB Site<br><br>**Status:** Completed implementation of Communication Plan in FY 2003.<br>**Status:** Deployed re-designed external Web site in FY 2003. | <br><br>Complete |
| Electronic Hearing Docket<br><br>**Status:** Enhance the Electronic Hearing Docket to support the adjudicatory hearing process. | <br><br>FY 2005 |
| New Public Meeting Notice System<br><br>**Status:** Deploy in FY 2005. | <br><br>FY 2005 |
| Electronic Information Exchange (EIE)<br><br>**Status:** Resolved public comment on the draft final rule in FY 2003.<br>**Status:** Issued EIE rule in the *Federal Register* on October 10, 2003.<br>**Status:** Enabled secured EIE for reactor and material stakeholders in FY 2003.<br>**Status:** Implement EIE Version 3.0 to provide greater reliability in FY 2005.<br>**Status:** Implement EIE upgrade to support increased volume as a result of the HLW proceeding. | <br><br><br>Complete<br>FY 2005<br>FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Capital Planning and Investment Control (CPIC) | |
| **Status:** Circulated revised draft CPIC Management Directive (MD) 2.2 in FY 2003. | Complete |
| **Status:** Issued revised CPIC MD 2.2. | Complete |
| **Status:** Used CPIC lessons learned to improve CPIC process. | Complete |
| Digital Data Management System (DDMS) | |
| **Status:** Developed DDMS proof-of-concept in FY 2003. | Complete |
| **Status:** Delivered DDMS production system design. | Complete |
| **Status:** Complete DDMS production system in Headquarters. | FY 2005 |
| **Status:** Complete DDMS production system in Las Vegas, NV. | FY 2006 |
| E-Payroll Conversion | |
| **Status:** Converted Payroll and HR processes to Department of Interior/National Business Center (DOI/NBC). | Complete |

**CHALLENGE 4:** Administration of all aspects of financial management. (Aspects highlighted by the OIG were limited to financial reporting and effective oversight of the procurement process to eliminate fraud, waste, and abuse. GAO identified a comparable challenge.)

| *Actions/Milestones* | *Schedule* |
|---|---|
| Continue to refine the pay/personnel time and labor reporting process.<br><br>**Status:** The Department of Interior (DOI), National Business Center (NBC) has been processing the agency's payroll since November 2, 2003. The NRC continues to oversee the operation of payroll and work with DOI/NBC on challenges. Through interactions with DOI/NBC on a one-on-one basis and through working groups, the NRC will continue to strive for the highest quality service. | Ongoing |
| Refine cost accounting system.<br><br>**Status:** In FY 2003, corrective actions on the medium security risks identified in the Cost Accounting Security Test and Evaluation Plan and Report have been completed. This includes the implementation procedures to adequate password security and the reduction of manual processing and validation. | Completed |
| Continue cost management improvement efforts.<br><br>**Status:** In FY 2003, corrective actions on the medium security risks identified in the Cost Accounting Security Test and Evaluation Plan and Report completed, including the implementation procedures to ensure adequate password security and the reduction of manual processing and validation. | Completed |

| | |
|---|---|
| Prepare the FY 2003 financial statements by January 30, 2004, and receive an unqualified audit opinion.<br><br>**Status:** Completed. | Completed |
| Prepare the FY 2004 financial statements by November 15, 2004, and receive an unqualified audit opinion.<br><br>**Status:** Completed | Completed |
| Complete License Fee Billing Replacement Project.<br><br>**Status:** Ongoing. | FY 2006 |

**CHALLENGE 5:** Clear and balanced communication with NRC external stakeholders.

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR REACTOR SAFETY MAJOR PROGRAM**<br>Development of a Communications Program for the Nuclear Reactor Safety Program (Office of Nuclear Reactor Regulation): One of the major goals for this Communications Program is to ensure openness with external stakeholders.<br><br>**Status:** Continue to implement the Communications Program, measure progress, and meet the performance goals. (See details below.) The Communications Program was completed during the 1st quarter of FY 2005 and will be updated annually.<br><br>Ensure the flow of information with external stakeholders located within the vicinity of local plants on issues most likely to generate substantial interest, and promote two-way communication.<br><br>**Status**: Plan public outreach meetings in the vicinity of plants which actively engage the public, particularly local residents, before actions are taken by the NRC. In FY 04, the Nuclear Reactor Safety Program held all 37 of the scheduled public outreach meetings associated with the measure.<br><br>Effectively represent the NRC and its positions to external stakeholders, such as Congress, IAEA, and other Federal agencies, including OMB, OPM, GAO, licensees, and the public.<br><br>**Status:** Hold annual workshops open to the public (such as the Annual Regulatory Information Conference) to bring together diverse groups of external stakeholders (including the international community) to discuss the latest trends in industry performance. | Ongoing |

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR MATERIALS AND WASTE SAFETY MAJOR PROGRAM**<br>Development of communication plans: The public trust and confidence in the NRC's ability to carry out its mission is an important Agency goal. The development of communication plans facilitates the implementation of public outreach efforts.<br><br>**Status:** The NRC continues to implement the nuclear materials and waste safety program communication plans, and updates them, as necessary. (See details below.) | Ongoing |
| Develop Spent Fuel Transportation Communication Plan.<br><br>**Status:** Completed and implemented December 28, 2001; revised as necessary. | Complete |
| Develop and implement site-specific decommissioning communication plans.<br><br>**Status:** Completed site specific communication plans for decommissioning reactors under NMSS. Completed site-specific communications plans for newly identified complex sites, October 2004. | FY 2002 - FY 2006 |
| Conduct public meetings on significant issues in the fuel facility licensing and inspection program.<br><br>**Status:** In FY 2004, examples of public outreach included public meetings on integrated safety analysis summary reviews, five licensee performance reviews, gas centrifuge and mixed-oxide fuel fabrication licensing initiatives, and a uranium recovery workshop. | Ongoing |
| Make public participation in the HLW regulatory program easier by continuing to conduct public meetings in Nevada on HLW program issues.<br><br>**Status:** In FY 2004, the NRC continued to respond to specific requests from affected units of local governments for public meetings on various aspects of the Agency's HLW program. Public outreach efforts in FY 2004 included meetings in Nevada where NRC representatives provided an overview of the Agency's role in the potential licensing of the repository. Examples of public meetings to communicate the NRC's role in the potential licensing of the proposed Yucca Mountain high-level waste repository included an open house, a workshop for tribal representatives on the licensing process and technical issues associated with the proposed repository, a presentation to the National Conference of State Legislatures' High Level Waste Working Group, and a workshop on NRC's hearing process which included participants from the Las Vegas Paiute Tribe, members of the Nevada legislature, and representatives from nine counties in Nevada and California. | FY 2002 - FY 2006 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Hold public meetings with local, State, and national government and international public and industry groups on radioactive materials and transportation issues to respond to concerns and interests.<br><br>**Status:** In FY 2004, NRC held several such meetings and conducted workshops for interested stakeholders. Examples included the Organization of Agreement States, the Conference of Radiation Control Program Directors, the four regional counsels of State governments (Northeast, Southeast, Midwest, and West); and the Advisory Committee on the Medical Use of Isotopes. Also, NRC and DOT held joint public meetings to seek input and inform national positions prior to the significant meetings of the International Atomic Energy Agency concerning international transport regulations. NRC and DOT held a joint public workshop during FY 2004 to address stakeholders questions on the revised DOT and NRC transport regulations. In FY 2004, the NRC conducted approximately 30 public meetings. | Ongoing |
| Post rulemakings, guidance, and meeting summaries on the Agency's Web site.<br><br>**Status:** Ongoing. | Ongoing |

**CHALLENGE 6:** Intra-Agency communication (up, down, and across Agency organizational lines).

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR REACTOR SAFETY MAJOR PROGRAM**<br>Development of a Communications Program for the Nuclear Reactor Safety Program (Office of Nuclear Reactor Regulation (NRR)): One of the major goals for this Communications Program is to ensure openness with internal stakeholders.<br><br>**Status:** Continue to implement the Communications Program, measure progress, and meet the performance goals. The Communications Program was completed during the 1st quarter of FY 2005 and will be updated annually. | Ongoing |
| **NUCLEAR MATERIALS AND WASTE SAFETY MAJOR PROGRAM**<br>Facilitate effective communication between the Office of Nuclear Material Safety and Safeguards (NMSS) and the Office of Nuclear Security and Incident Response (NSIR), and enhance integration and cooperation in areas of common concern.<br><br>**Status:** In FY 2004, the two offices routinely interfaced on the fuel cycle facility vulnerability assessments, and support continued on design basis threat orders and interim compensatory measure orders. Interaction between the two offices is ongoing. | Ongoing |
| Conduct Materials Program headquarters/regions counterpart meetings.<br><br>**Status:** Division Directors counterpart meetings were held in February and August 2004. | Ongoing |
| Continue to implement and update the Nuclear Materials and Waste Safety Major Program communications plans, as necessary (also see Management Challenge 4).<br><br>**Status:** In FY 2004, staff held counterpart meeting with regional spent fuel storage and transportation inspectors to discuss the revised transport regulations in 10 CFR Part 71. Other communication plan implementing activities and/or training efforts were continued in FY 2004. In addition, in FY 2004, communication plans associated with fuel cycle licensing and inspection program activities were established. | Ongoing |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Continue efforts within NMSS to improve intra-office communication to better enable staff to do their jobs, encourage teamwork, and foster a sharing of insights across organizations and programs:<br><br>• conduct NMSS-wide staff meetings several times each year to convey key policy and procedural information in a timely manner.<br>• support staff rotational and team work group assignments in order to share insights across organizations/programs, and to increase team building and program-based solutions to issues.<br>• continue efforts to empower managers by clearly communicating and reaching agreement up front on expectations for emergent and ongoing work.<br>• conduct regularly scheduled meetings with staff at all levels (division, section, branch, and office-wide) to communicate essential information and ensure open lines of communication up and down the organization.<br>• conduct a series of 12 communications workshops for its staff. The workshops, which began in September 2004, focus on how to improve communication skills, including guidelines on e-mails, work assignments, meetings, and communicating the context of messages.<br><br>**Status**: In FY 2004, NMSS conducted office-wide staff meetings to convey key policy and procedural information; regularly scheduled meetings are conducted at all organizational levels (division, branch, and section) to ensure communication of essential information and ensure open lines of communication; staff rotational and team work group assignments were supported to encourage team building and sharing of information; efforts continued to empower managers and staff by clearly communicating and reaching agreement on expectations of emerging and ongoing work. | Ongoing |
| Conduct periodic meetings with managers in NMSS, the Office of State and Tribal Programs, and the Office of Nuclear Security and Incident Response.<br><br>**Status:** Ongoing. | Ongoing |
| Manage and coordinate activities, policies, and efforts with managers from other NRC offices through the biweekly meetings of the High-Level Waste Board, bimonthly NRC/EPA interface meetings, monthly Decommissioning Management Board meetings, and weekly NMSS and division staff meetings.<br><br>**Status:** Ongoing. | Ongoing |
| Manage and coordinate decommissioning activities, policies, and efforts with managers from other NRC offices through the monthly meeting of the Decommissioning Management Board.<br><br>**Status:** Ongoing. | Ongoing (monthly) |
| Hold semi-annual meetings of NMSS and Office of Nuclear Regulatory Research managers to review the status of cooperative efforts and discuss issues or concerns.<br><br>**Status:** Ongoing. | Ongoing (semi-annually) |

**CHALLENGE 7:** Regulatory processes that are integrated and continue to meet NRC's safety mission in a changing external environment.

| *Actions/Milestones* | *Schedule* |
|---|---|
| **NUCLEAR REACTOR SAFETY MAJOR PROGRAMS**<br>Issue a final Commission paper recommending followup actions.<br><br>**Status:** The staff issued SECY-02-0143 on July 26, 2002. | Complete |
| **NUCLEAR MATERIALS AND WASTE SAFETY MAJOR PROGRAM**<br>Interoffice communication on important issues such as the high-level waste management and decommissioning areas is made more effective through the use of management boards, which meet biweekly and monthly, respectively, to discuss status reports regarding action items and to provide additional direction to these programs, particularly in the area of policy issues. In addition, semi annual meetings between NMSS and the Office of Nuclear Regulatory Research are conducted to review the status of cooperative efforts and discuss issues of concern.<br><br>**Status:** Ongoing. | Ongoing |
| The Offices of the General Counsel, Secretary to the Commission, Chief Information Officer, Atomic Safety Licensing Board Panel, and Nuclear Materials Safety and Safeguards continued to work together to prepare for receipt of the HLW repository license application and hearing, which involves getting the systems and process in place to fulfill the 3-year goal for completion.<br><br>**Status:** Ongoing. | FY 2002 - FY 2005 |
| Hold quarterly meetings of the PRA Steering Committee to ensure that risk-informed activities are integrated across the Agency.<br><br>**Status:** Ongoing. | Ongoing (quarterly) |
| Participate on the Agency's Research Effectiveness Review Board to ensure that the research program is effective in meeting the Agency's needs.<br><br>**Status:** Ongoing. | FY 2002 - FY 2005 |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Conduct meetings with stakeholders to provide an opportunity for exchange of information so that stakeholder viewpoints can be understood. FY 2004 examples included the following:<br><br>• Responded to specific requests from affected units of local governments to others for public meetings on various aspects of the Agency's HLW program, including an open house meeting, a workshop for tribal representatives on the licensing process and technical issues associated with the proposed repository, a presentation to the National Conference of State Legislatures' High Level Waste Working Group, and a workshop on NRC's hearing process which included participants from the Las Vegas Paiute Tribe, members of the Nevada legislature, and representatives from nine counties in Nevada and California.<br><br>• Held several public meetings associated with environmental reviews conducted under the National Environmental Policy Act, including the environmental review of the LES facility in Eunice, NM; decommissioning of the Sequoyah Fuels Corporation facility in Gore, Oklahoma; a scoping meeting on the Generic Environmental Impact Statement (EIS) on Controlling the Disposition of Solid Materials, a technical exchange with DOE on the adoption of the Yucca Mountain final EIS; and an environmental review meeting for the EIS concerning the decommissioning of the West Valley Demonstration Project in West Valley, NY.<br><br>• Held public meetings associated with the decommissioning of the Mallinkrodt, SCA Holdings, Michigan Department of Natural Resources, Pathfinder, and Yankee Rowe sites.<br><br>• Participated in more than 30 workshops, conferences, and town hall meetings on spent fuel storage and transportation issues with representatives of various Federal, State, and local agencies; international bodies; the nuclear industry; and public interest groups in FY 2004.<br><br>• Held public meetings associated with requirements for recognition of specialty board certifications in 10 CFR Part 35, "Medical Use of Byproduct Material".<br><br>• Conducted other public outreach efforts including a uranium recovery workshop and public meetings on the proposed Louisiana Energy Services' (LES) gas centrifuge facility.<br><br>• In FY 2004, held a public meeting to describe NRC's licensing process for the license application for the USEC American Centrifuge Plant; held an Integrated Safety Analysis Workshop for Industry; and a public meeting on the Louisiana Energy Services' gas centrifuge uranium enrichment facility environmental impact statement scoping. | Ongoing |
| Review and update the listing of external factors influencing our activities. Also, continue analyzing the external environment and document planning assumptions each year as part of the NRC's Planning, Budgeting, and Performance Management Process.<br><br>**Status:** Ongoing. | Ongoing |

| *Actions/Milestones* | *Schedule* |
|---|---|
| A Risk Steering Committee, consisting of managers and staff with expertise in risk-informing initiatives from the Office of Nuclear Material Safety and Safeguards (NMSS), Nuclear Regulatory Research (RES), and Nuclear Reactor Regulation (NRR), provides guidance for implementing risk-informed initiatives in the Nuclear Materials and Waste Safety programs and also provides peer review of risk-informed products.<br><br>**Status:** Ongoing. | Ongoing |
| The Rulemaking Coordinating Committee (RCC) was formed in 1998 to ensure that the NRC rulemaking process in NMSS and NRR remains consistent. The RCC is chaired by the Office of Administration and consists of managers from those offices, as well as the Office of the General Counsel, who routinely meet to discuss rulemaking-related issues. An initiative of the RCC was the establishment of an interoffice task force to review the current rulemaking process and identify areas with potential for process improvements and/or enhancements.<br><br>**Status:** The task force provided its final report to the RCC in November 2002. It contained 36 recommendations for process improvements. Twenty-five of these recommendations are either completed or projected to be completed in FY 2005. Another early success relates to a streamlined process for certificate of compliance rulemakings using more standardized language and a reduced concurrence chain. | Ongoing |
| Assess effectiveness of the decommissioning program in achieving performance goals and implementing strategies, and recommend improvements.<br><br>**Status:** Drafted an Integrated Decommissioning Program Improvement Plan that integrates the staff's activities for implementing the recommendations from the analysis of the License Termination Rule and the decommissioning program evaluation (completed September 2004). | Complete |

**CHALLENGE 8:** Maintenance of a highly competent staff to carry out NRC's public health and safety mission (i.e., human capital management). (GAO identified a comparable challenge.)

| *Actions/Milestones* | *Schedule* |
|---|---|
| Update the inventory of existing staff skills on an annual basis.<br><br>**Status:** Task completed in FY 2004. Will continue annually. | Ongoing |
| Continue to implement strategies to close identified skill gaps.<br><br>**Status:** Task completed in FY 2004. Will continue annually. | Ongoing |
| Identify new skills gaps and implement additional gap closure strategies, as necessary.<br><br>**Status:** Task completed in FY 2004. Ongoing. | Ongoing |
| Use the SWP as a system for managers and supervisors to document their workforce skills needs over the near term (0-2 years) and long term (2-5 years).<br><br>**Status:** Task completed in FY 2004. Will continue annually. | Ongoing |

| | |
|---|---|
| Continue to improve the capability of NRC's workforce through training, development, and continuous learning.<br><br>**Status:** Task completed in FY 2004. Will continue annually. | Ongoing |
| Facilitate knowledge transfer.<br><br>**Status:** Ongoing. | Ongoing |
| Continue to offer leadership competency development programs (Senior Executive Service (SES) Candidate Development Program and Leadership Potential Program (LPP)) for succession planning.<br><br>**Status:** Task completed in FY 2004. | Ongoing |
| Continue to improve the alignment of individual performance plans with Agency strategic and performance goals.<br><br>**Status:** During FY 2004, NRC implemented a new Senior Executive Service performance management system that better aligns executives' accomplishments with the Agency's Strategic Plan, Performance Plan, and office operating plans. Ongoing. | Ongoing |
| Maintain a Nuclear Safety Professional Development Program to attract and retain entry-level hires in engineering and scientific jobs.<br><br>**Status:** Task completed in FY 2004. Will continue annually. | Ongoing |

## **CHALLENGE 9**: Protection of information.

| ***Actions/Milestones*** | ***Schedule*** |
|---|---|
| Update the Volume 12 security management directives to clearly define the roles, responsibilities, and authorities of the different NRC officials responsible for the NRC security program. Management Directive 12.6, "NRC Sensitive Unclassified Information Security Program" will be included in this update.<br><br>**Status:** Complete. | Complete |
| Automated Information Systems (AIS) Security<br>Complete updates and revisions to the NRC's AIS Security Policy.<br><br>**Status:** Issued final draft, revised policy and handbook in FY 2003. | Complete |
| Enhance the interim information systems security incident response procedures and enhance the vulnerability patch dissemination and tracking process.<br><br>**Status:** Incorporated revised policies into MD 12.5 in FY 2003. | Complete |
| Formally specify the NRC firewall policy.<br><br>**Status:** Issued updated firewall policy in FY 2003. | Complete |

| *Actions/Milestones* | *Schedule* |
|---|---|
| Define and pilot a secure INTRANET solution that will provide the capability for NRC users to process and protect their sensitive information using the Agency's network.<br><br>**Status:**<br>Conducted market survey in FY 2003.<br>Conduct pilot.<br>Determine requirements to field secure INTRANET capabilities to all NRC users. | <br><br><br>Complete<br>FY 2005<br>FY 2005 |
| Conduct annual testing and/or Federal Information Security Management Act (FISMA) review of the management, operational, and technical security controls of all NRC major IT systems.<br><br>**Status:** Ongoing task. | Ongoing |
| Implement corrective action plans as a result of FISMA FY 2004 annual review.<br><br>**Status:** The plan will be implemented in FY 2005. | FY 2005 |
| Perform internal and external network security testing to protect the NRC Web site and internal networks from both internal and external unauthorized activity.<br><br>**Status:** Ongoing task. | Ongoing |
| Implement a process for system managers and project officers to inform the Division of Contracts when their contract requirements include contractor access to NRC systems of records so that Privacy Act clauses can be included.<br><br>**Status:** Task was completed in FY 2003. | Complete |
| Implement measures to enforce established policy regarding system manager and project officer responsibilities to inform NRC's Privacy Program Officer of systems of records and duplicate systems of records.<br><br>**Status:** Task completed in FY 2003. | Complete |
| Perform biennial review of NRC offices to determine if all systems of records and duplicate systems of records have been identified.<br><br>**Status:** Next biennial review will be completed in fall 2004. | Ongoing |
| Make system managers aware of their responsibilities for maintaining a list of duplicate systems of records under the Privacy Act, including all names, descriptions and office locations of these records.<br><br>**Status:** Task completed in FY 2003. | Complete |
| Add additional barriers and warning messages to the ADAMS software to prevent the release of sensitive documents or packages.<br><br>**Status:** Task completed in FY 2003. | Complete |
| Add a sensitivity warning message to the bottom of every page on the Agency's internal Web site to serve as a reminder to staff that sensitive information should not be made publicly available.<br><br>**Status:** Task completed in FY 2003. | Complete |

## U.S. NUCLEAR REGULATORY COMMISSION
## REPORT TO CONGRESS ON DRUG TESTING

The Congress and the Department of Health and Human Services initially approved the NRC's Drug Testing Plan in August 1988, and the agency subsequently updated the Plan in November 1997. The NRC's drug testing requirements for the nuclear industry, as imposed by agency regulations, are separate and distinct from this program and are not covered by this report. The NRC's Drug Testing Program under Executive Order (E.O.) 12564 includes random, applicant, voluntary, followup, reasonable suspicion, and accident-related drug testing. Testing was initiated for 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.

Under the NRC's Drug Testing Program, employees in certain "testing-designated" positions are subject to random testing. Specifically, these positions include (1) regional and headquarters employees who have unescorted access to vital or protected areas of nuclear plants, Category I fuel facilities, and uranium enrichment facilities; (2) employees who have assigned responsibilities or are on call for regional or headquarters incident response centers; (3) employees who require access to classified information (e.g., national security information or restricted data); and (4) employees who operate motor vehicles and carry passengers.

Approximately 1,740 NRC employees occupy testing-designated positions and are subject to random testing. Potential selectees interviewed for positions in these categories are subject to applicant testing.

The NRC conducted approximately 946 tests of all types between October 1, 2003, and September 30, 2004. Random testing results for NRC employees during this time period were negative. One applicant tested positive for amphetamines and two applicants received invalid test results because their specimens indicated abnormal characteristics that may have resulted from tampering. These applicants were 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, Department of Health and Human Services guidelines, and Commission decisions.

## APPENDIX VII: SUMMARY OF REIMBURSABLE WORK AGREEMENTS

| U.S. NUCLEAR REGULATORY COMMISSION<br>SUMMARY OF REIMBURSABLE WORK AGREEMENTS*<br>(New Budget Authority) | | | |
|---|---|---|---|
| | **FY 2004** | **FY 2005 (Enacted)** | **FY 2006 (Estimate)** |
| **INTERNATIONAL ASSISTANCE TO FOREIGN GOVERNMENTS AND ORGANIZATIONS** | | | |
| International Invitational Travel (IAEA & various foreign governments and international organizations) | $102,000 | $80,000 | $80,000 |
| Material, Protection, Control and Accounting Assistance to Russia/NIS (DOE) | $250,000 | $100,000 | $100,000 |
| Support to FSAN - Licensing and Regulatory Review for U.S./Russian Plutonium Disposition (DOE) | $2,350,000 | $694,000 | $694,000 |
| Nuclear Safety Initiatives for the New Independent States (AID) | $2,150,000 | $3,250,000 | $3,250,000 |
| **ADMINISTRATIVE AGREEMENTS** | | | |
| Agreement States Training (State Governments) | $98,000 | $150,000 | $150,000 |
| Criminal History Program (Licensees) | $1,590,000 | $1,750,000 | $1,775,000 |
| Material Access Authorization Program (Licensees) | $247,000 | $325,000 | $330,000 |
| Information Access Authorization Program (Licensees) | $112,000 | $30,000 | $35,000 |
| Employee Detail - Project Prometheus: Surface Power Program (NASA) | $305,000 | $0 | $0 |
| **OTHER AGREEMENTS** | | | |
| NRC Support for Mars Survey 2003 Lander Programs in the Development of Safety Analysis Report and Safety Evaluation Report (NASA) | $40,000 | $30,000 | $30,000 |
| Foreign Cooperative Research Agreements (Multiple) | $1,447,000 | $2,000,000 | $2,000,000 |
| Westinghouse Cooperative Research Agreement | $150,000 | $0 | $0 |
| Foreign Research Reactor Spent Nuclear Fuel (DOE) | $100,000 | $176,000 | $176,000 |
| Route Review of Spent Fuel (DOE) | $0 | $250,000 | $250,000 |
| Navy Reviews (U.S. Navy) | $15,000 | $10,000 | $10,000 |
| VIRGINIA Class Submarine Propulsion Plant Review (DOE) | $0 | $0 | $0 |
| Waste Actions for Hanford (DOE) | $200,000 | $818,000 | $818,000 |
| Transport Package for Shipment of Tritium Producing Burnable Absorber Rods (TPBAR) (DOE) | $250,000 | $0 | $0 |

## APPENDIX VII: SUMMARY OF REIMBURSABLE WORK AGREEMENTS

| | FY 2004 | FY 2005 (Enacted) | FY 2006 (Estimate) |
|---|---|---|---|
| Safety and Security of Spent Fuel Storage (DHS) | $500,000 | $0 | $0 |
| Risk-Based End-States Review (DOE) | $20,000 | $312,000 | $624,000 |
| Incidental Waste Determinations for SRS and INEEL (DOE) | $0 | $1,300,000 | $0 |
| **TOTAL** | **$9,926,000** | **$11,275,000** | **$10,322,000** |

***Does not include classified reimbursable work agreements.**

## ENDNOTES

1. "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.

2. 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.

3. Significant Accident Sequence Precursor (ASP) events have a conditional core damage probability (CCDP) or ΔCDP of $\geq 1x\ 10^{-3}$. Such events have a 1/1000 ($10^{-3}$) or greater probability of leading to a reactor accident involving core damage. An identical condition affecting more than one plant is counted as a single ASP event if a single accident initiator would have resulted in a single reactor accident. One event was identified in FY 2002 as having the potential of being a "significant" precursor. This precursor involved a reactor pressure vessel head degradation at Davis-Besse (see page 29 of last year's report). Preliminary Accident Sequence Precursor analysis shows Davis-Besse as a significant precursor. It will be final after the licensee comments. Based on the screening and engineering evaluation of FY 2002 and 2003 events, no other potentially "significant" precursors were identified. Therefore, the second performance measure was not exceeded for FY 2002 and 2003. For FY 2004 events occurring before June 1, 2004, screening and engineering evaluation of these events identified no potentially "significant" precursors.

4. 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.

5. Considering all indicators qualified for use in reporting.

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. Defined as a disclosure that harms national security or public safety.

9. Processes are defined as a detailed set of activities that result in a clearly defined output.

10. Processes will not be identified and reported in FY 2005 since offices have to establish a baseline for "desired efficiency improvement."

11. Examples include failing to meet key timeliness objectives (e.g., for fuel cycle licensing actions or reactor power uprates) due to inefficient regulatory processes or having an inadequate regulatory framework in place.

12. Scope includes support work in both support offices and program offices.

13. Processes will not be identified and reported in FY 2005 since offices have to establish a baseline for "desired efficiency improvement."

14. The OIG Management and Operational Support staff consists of senior managers, a general counsel, and an administrative support staff. To carry out the function of this program in FY 2006, OIG estimates its costs to be $1.307 million, which includes salaries and benefits for 8 FTE. The associated FTE and salaries and benefits estimates were equally divided between the Audits and Investigations programs. The contract support and travel estimate for information technology, travel, training, and technical support were divided by a FTE ratio to Audits and Investigations programs. Contract support and travel estimates for reports production and office supplies were divided equally between Audits and Investigations programs.

15. OIG products are issued OIG reports–by the audit unit, an audit report, or special evaluation; or by the investigative unit, an investigation, an event inquiry, or a special inquiry. Activities are OIG hotline activities or proactive investigative projects.

16. Congress left the determination and threshold of what constitutes a most serious management challenge to the discretion of the Inspectors General. As a result, the OIG applied the following definition: *Serious management challenges are mission-critical areas or programs that have 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. Due to the complexity and length of time for the agency to correct identified problems in the safety goal area, the performance measure for final agency action within 1 year on audit recommendations was reduced from 65 percent to 50 percent for goal 1 on the advancement of NRC's safety efforts.

19. "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 I.A.8 using the definition of the AO criteria in use as of 8/31/04.

20. Releases that have the potential to cause "adverse environmental impact" are those that exceed the limits for reporting abnormal occurrences as given by Abnormal Occurrence Criterion 1.B.1 (normally 5,000 times Table 2 [air and water] of Appendix B, Part 20 using the definition of AO criteria in use as of 8/31/04.)

21. Releases for which a 30-day report requirement under 10 CFR 20.2203(a)(3) is required.