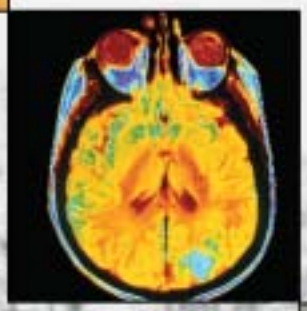

PERFORMANCE AND ACCOUNTABILITY REPORT

U.S. NUCLEAR REGULATORY COMMISSION

FY 2003

NRC Mission

The U.S. Nuclear Regulatory Commission regulates the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of the public health and safety, to promote the common defense and security, and to protect the environment.

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AGA

CERTIFICATE OF EXCELLENCE IN ACCOUNTABILITY REPORTING®

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In recognition of your outstanding efforts in preparing NRC's Performance and Accountability Report for the fiscal year ended September 30, 2002.

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John H. Hummel, CGFM
Chair, Certificate of Excellence in Accountability Reporting Board

Julie Renthrope, CGFM
2003-2004 National President

Chapter 1

Management's Discussion and Analysis

A MESSAGE FROM THE CHAIRMAN

I am pleased to present the Nuclear Regulatory Commission's *Performance and Accountability Report* for FY 2003. I am proud of the hard work and dedication shown by NRC employees during this challenging year. The NRC has again achieved all of its safety performance goals while taking substantial action to enhance security.

The NRC continues to build progress over the past decade to enhance nuclear safety; oversight of the industry is continuing to achieve its objective of protecting public health and safety without stifling the production of energy needed by our Nation. We have continued a strong and progressive program of using risk analysis and performance monitoring to learn from operational experience and to develop more effective programs to allocate our resources better.

Few areas of nuclear regulation have undergone as much change as the area of security since the terrorist attacks on September 11, 2001. To address initial concerns about the increased threat in the wake of those attacks, the NRC raised the level of security at nuclear facilities by requiring upgraded physical protection, access authorization, security force training and qualification, and safeguards-design standards used to protect against acts of radiological sabotage and to prevent the theft of special nuclear material. The NRC is also conducting force-on-force exercises and enhanced emergency preparedness exercises to assess and improve, as needed, licensees' readiness to protect reactor and fuel facilities from potential accidents, sabotage, or theft and is working to increase the security of radioactive materials that present higher risk to public health and safety in radiological dispersal devices. The NRC continues to work with various Federal, State, local, and international agencies to strengthen security of nuclear facilities and materials.

One of my goals is to ensure that our resources are well managed and wisely used. This report provides financial information which demonstrates the prudent management of the funds entrusted to us by the American people and describes our successes in implementing the President's Management Agenda to promote more efficient and effective Government.

The Reports Consolidation Act of 2000 requires an assessment of the completeness and reliability of the program and financial data contained in this report based on evaluation criteria issued by the Office of Management and Budget. I conclude that the data are complete and reliable. In addition, the NRC evaluated its management controls and financial management systems, as required by the Federal Managers' Financial Integrity Act. On the basis of our comprehensive management control program, I am pleased to certify, with reasonable assurance, that the NRC is in compliance with the provisions of this act.

We at the NRC are committed to conducting an effective regulatory program, including renewal of operating licenses for existing plants and site approvals for new reactor designs, that enables the use of nuclear materials in a manner that protects the public health and safety and the environment, and promotes the security of our Nation. We look forward to continuing to provide high-quality service to the American people.

Nils J. Diaz

December 19, 2003

INTRODUCTION

This Performance and Accountability Report represents the culmination of the U.S. Nuclear Regulatory Commission's (NRC) program and financial management processes, which began with mission and program planning, continued through the formulation and justification of NRC's budget to the President and the Congress, through budget execution, and ended with this report on our program performance and use of the resources entrusted to us. This report was prepared pursuant to the requirements of the Chief Financial Officers Act, as amended by the Reports Consolidation Act, and covers activities from October 1, 2002, to September 30, 2003.

Chapter 1, Management's Discussion and Analysis, provides a high-level overview of the NRC. It consists of six sections: *About the NRC* describes the agency's mission, organizational structure, and regulatory responsibility; *Future Challenges* includes forward-looking information; *Program Performance Overview* discusses the agency's success in achieving its strategic goals; *President's Management Agenda* describes the agency progress in "Getting to Green" for the five management initiatives; *Financial Performance Overview* provides highlights of the NRC's financial position and audit results; and *Systems, Controls, and Legal Compliance* describes the agency's compliance with key legal and regulatory requirements.

ABOUT THE NRC

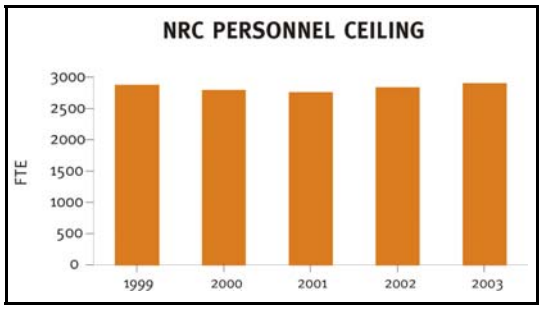
The NRC was established on January 19, 1975, as an independent Federal agency to regulate various commercial and institutional uses of nuclear materials. The NRC's purpose is defined by the Atomic Energy Act, as amended, and the Energy Reorganization Act, as amended. These acts provide the foundation for regulating the Nation's civilian uses of nuclear materials.

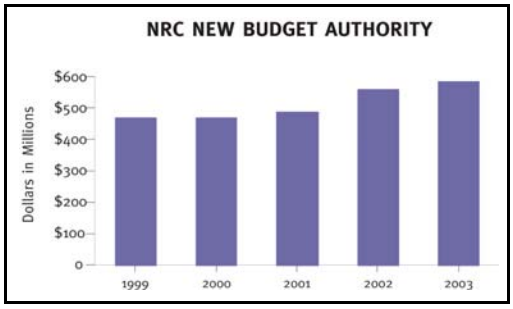
Organization

The NRC is headed by a Commission composed of five members, with one member designated by the President to serve as Chairman. Each member is appointed by the President, with the advice and consent of the Senate, and serves a term of 5 years. The Chairman serves as the principal executive officer and official spokesman for the Commission. The chief operating officer is the Executive Director for Operations who carries out the program policies and decisions made by the Commission.

The NRC's headquarters offices are located in Rockville, Maryland. Four regional offices are located in King of Prussia, Pennsylvania; Atlanta, Georgia; Lisle, Illinois; and Arlington, Texas; and a technical training center is located in Chattanooga, Tennessee. The NRC's Operations Center is the focal point for NRC communications with its licensees, State agencies, and other Federal agencies concerning operating events in the commercial nuclear sector. The Operations Center is staffed 24 hours a day by NRC operations officers. The NRC also has resident inspector offices at each commercial nuclear power plant.

The NRC's budget for fiscal year (FY) 2003 was $584.6 million and 2,906 full-time equivalent staff. The FY 2002 budget was $558.6 million and 2,842 full-time equivalent staff. The NRC is a fee-based agency that recovers most of its funding from fees paid by NRC licensees. Approximately 47 percent of the budget and 54 percent of the staff are for reactor safety.





Regulatory Responsibility

To fulfill its responsibility to protect the public health and safety, the NRC performs three principal regulatory functions: (1) establish standards and regulations, (2) issue licenses for nuclear facilities and users of nuclear materials, and (3) inspect facilities and users of nuclear materials to ensure compliance with regulatory requirements. These regulatory functions relate to both nuclear power plants and other civilian uses of nuclear materials, such as nuclear medicine programs at hospitals; academic activities at educational institutions; research work; industrial applications, such as gauges and testing equipment; and the transport, storage, and disposal of nuclear materials and wastes. The NRC has aligned its regulatory programs into the following four strategic arenas.

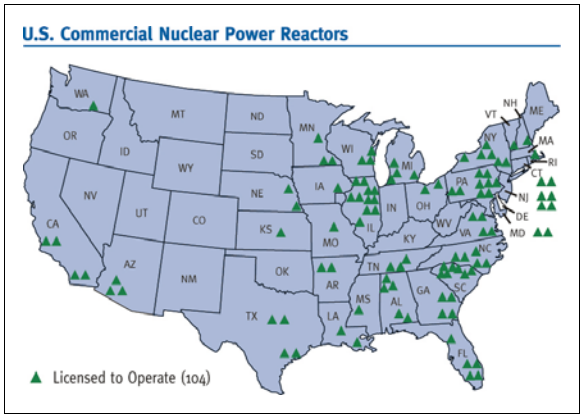
Nuclear Reactor Safety encompasses all NRC efforts to ensure that civilian nuclear power reactor facilities, as well as test and research reactors, are operated in a manner that adequately protects public health and safety and the environment, and that safeguards special nuclear materials used in reactors.

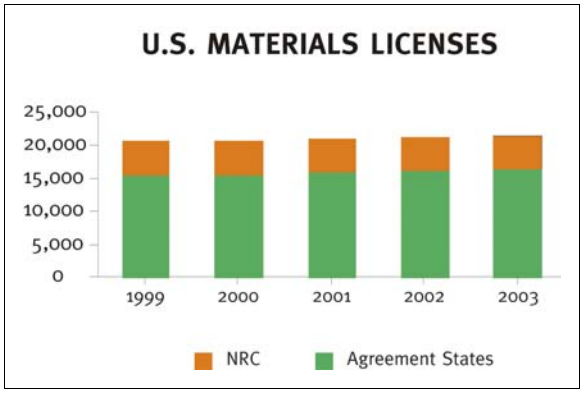
Nuclear Materials Safety encompasses NRC efforts to ensure that nuclear fuel cycle facilities; and academic, industrial, and medical uses of nuclear materials are handled in a manner that adequately protects public health and safety and the environment, and protects against radiological sabotage and theft or diversion of special nuclear materials.

Nuclear Waste Safety encompasses NRC efforts to ensure that the decommissioning of nuclear reactors and other facilities, storage of spent nuclear fuel, transportation of radioactive materials, and disposal of radioactive wastes are handled in a manner that adequately protects public heath and safety and the environment, and protects against radiological sabotage and theft or diversion of special nuclear materials.

International Nuclear Safety Support encompasses international nuclear safety and regulatory policy formulation, import-export licensing for nuclear materials and equipment, treaty implementation, and international information exchange.

NRC also carries out a corporate management and support function for information technology, financial management, human resources, and other support functions. Efforts in this area are aligned with the President's Management Agenda and focus on the five Governmentwide initiatives aimed at improving agency management.





Approximately 20 percent of the Nation's electricity is generated by 104 commercial nuclear reactors which are licensed by the NRC to operate in 31 States. Since 1991, nuclear electric generation has increased by 21 percent. The NRC expends over 330,000 hours of inspection effort at 104 operating reactors and licenses approximately 4,500 reactor operators.

The NRC oversees approximately 4,800 licenses for medical, academic, industrial, and general uses of nuclear materials. The NRC conducts approximately 1,100 health and safety inspections of its nuclear materials licensees annually. Additionally, approximately 16,600 licenses are administered by the 33 States that participate in the Agreement States Program, which authorizes the State to regulate the use of radioactive materials within that State. The NRC, Agreement States, and their licensees share a common responsibility to protect public health and safety.

The NRC places a high priority on keeping the public fully informed of its activities. Visit our Web site at www.nrc.gov to learn more about who we are and what we do to serve the American people.

FUTURE CHALLENGES

The Commission is focused on addressing a number of significant challenges that will have long-term impact on accomplishment of its mission. The ongoing terrorism threat requires that the NRC invest significant resources on homeland security-related activities. In addition, the NRC needs to review applications from industry in preparation for the possibility of new applications to construct nuclear power plants. A third major challenge is preparing for a potential license application for a high-level waste repository.

Homeland Security

Few areas of nuclear regulation have undergone as much change as the area of security since the terrorist attacks on September 11, 2001. To deal with initial concerns about the increased threat

in the wake of those attacks, the NRC issued advisories and orders to its licensees and participated in many Federal ad hoc and standing committees and task groups to enhance National response and international decisions. The agency continues to work to strengthen relationships among the various Federal, State, and local agencies, including the new Department of Homeland Security (DHS), that have assumed responsibility for protecting nuclear facilities and activities and responding to incidents when they occur.

The primary challenge facing the NRC in the coming years is to emerge from this period of temporary measures, determine what long-term security provisions are necessary, and revise its regulations, security enhancements, orders and internal procedures to ensure public health and safety and the common defense and security in the elevated threat environment. In particular, the NRC will focus its efforts on the following activities:

- Complete the identification of vulnerabilities at licensed facilities.
- Revise requirements to provide additional protection where needed.
- Explore improved methods of communicating sensitive information to licensees.
- Enhance controls on high-risk radiation sources.
- Develop more formal, long-term relationships with Federal, State, and local organizations with shared responsibilities for protecting nuclear facilities and activities.

The NRC may also be called upon to expand its role in international activities related to the security of nuclear materials and facilities. Today, the agency participates in the formulation of foreign policy guidance and shares with the U.S. Department of Energy (DOE) the responsibility for providing international assistance in nuclear safety and safeguards. The agency also reviews applications and issues import and export licenses for nuclear materials and equipment. The heightened level of attention to these types of activities may affect the NRC's security strategies over the next several years. The NRC 's involvement with the International Atomic Energy Agency(IAEA) on nuclear safeguards, non-proliferation, and international regulatory standards is also likely to be affected.

The agency has contributed significantly to integrated efforts to protect against terrorist attacks on American interests. The NRC is maintaining state-of-the-art expertise in matters of both domestic and international security.

Nuclear Power and National Energy Needs

The question of where and how the United States will obtain the energy it needs, now and in the decades to come, is a matter of national importance. The availability and price of energy continues to play a crucial role in determining the quality of life for Americans now. Nuclear power currently supplies 20 percent of U.S. electricity needs. The President's National Energy Policy has cited nuclear power as a vital component of America's energy portfolio.

The NRC's mission is to ensure the adequate protection of the public health and safety in the use of nuclear materials. The NRC also has an obligation to fulfill its regulatory responsibilities without imposing unnecessary burdens on the industry. The challenge is to allow for innovation and improvements by operators in utilizing their power generation facilities while ensuring that the focus on safety remains the first priority in the use of nuclear power.

Compared to the operating record at the beginning of the 1990s, nuclear power plants today are more efficiently run, with fewer outages and greater reliability. In less than a decade, average capacity utilization in the industry has increased from 70 percent to 92 percent in 2002. (FY 2003 data will be available in mid-FY 2004.) At the same time, objective measures of safety performance have also shown considerable improvement. The growth in demand for electric power, improved economic fundamentals for nuclear power generation, and concerns about the supply of energy from other sources and their environmental impact have increased electric utilities' interest in building and operating new nuclear power plants. The NRC is currently reviewing three design certification applications and expects to receive one additional application in the next year. Two early site permit applications have been received with one more expected in early FY 2004. The NRC has been putting in place the necessary regulatory processes to review an application for a new plant and to monitor its construction. The NRC must meet the challenge of keeping pace with industry plans and schedules for new reactor licensing activities, including early site permit reviews, design reviews, and enhancement to the regulatory infrastructure.

Nuclear Waste

Radioactive waste is a byproduct of generating nuclear power. In April 2002, the President accepted the Secretary of Energy's recommendation that the Yucca Mountain, Nevada, site be developed as a potential repository for the disposal of high-level nuclear wastes and spent nuclear fuel. In July 2002, Congress approved a resolution of siting approval, which authorizes DOE to apply to the NRC for a license to operate Yucca Mountain as a nuclear waste repository. The NRC will play a critical role in ensuring that any repository built at Yucca Mountain provides for the long-term safety of the surrounding environment and public health. The agency's activities, in anticipation of DOE's operating license application, began to scale up in FY 2003. The NRC also issued the final Yucca Mountain Review Plan (YMRP), describing the information that the NRC is to review in the license application, as well as the criteria for determining whether issues have been satisfactorily addressed. The NRC expects DOE to file its license application in late 2004. In FY 2003, the NRC published a final rule which addresses unlikely events for the proposed Yucca Mountain repository that can be excluded from certain required assessments due to their low probability of occurrence.

PROGRAM PERFORMANCE OVERVIEW

Federal agencies provide an annual performance plan to Congress, setting goals with measurable target levels of performance based on the Government Performance and Results Act (GPRA). The NRC evaluates its program performance within a structured planning, budgeting, and performance management (PBPM) process. As such, NRC has organized its strategic goals, performance goals, and strategies for achieving its mission into four strategic arenas. Our highest priority is safety, and our strategic goals focus on the achievement of this priority. NRC's FY 2000-2005 Strategic Plan is available on its Web site at www.nrc.gov. The complete FY 2003 Performance Report, with strategic goal measures, is contained in Chapter 2: Program Performance.

Nuclear Reactor Safety

Strategic Goal: Prevent radiation-related deaths and illnesses, promote the common defense and security, and protect the environment in the use of civilian nuclear reactors.

The NRC regulates 104 civilian nuclear power reactors licensed to operate and 36 non-power reactors. During FY 2002 and 2003, the NRC met all five of the strategic goal measures for this arena.

For the past year, the NRC met or exceeded all established schedules for license renewal activities. This is significant given the interest by our licensees whose licenses need to be renewed to continue operations. In addition, during FY 2003 NRC approved 17 requests from licensees for power uprates, which increase the electrical generating capacity of the licensees' nuclear reactor power plants. To date, the NRC has approved 99 requests from licensees for power uprates. Approval of power uprates has resulted in an electrical generating capacity gain equivalent to approximately three large nuclear power plants. New reactor licensing activities during FY 2003 included the receipt of two reactor design review applications and two early site permit applications. To promote common defense and security, NRC took significant actions requiring licensees to enhance the already robust security at nuclear power plants and other sensitive facilities.

Nuclear Materials Safety

Strategic Goal: Prevent radiation-related deaths and illnesses, promote the common defense and security, and protect the environment in the use of source, byproduct, and special nuclear material.

The NRC has regulatory oversight for 42 fuel cycle facilities, including eight major fuel cycle facilities and two gaseous diffusion plants. This strategic arena also includes oversight of approximately 20,000 specific and 150,000 general licenses regulated by the NRC and the 33 Agreement States. During FY 2002 and 2003, the NRC met all five of its strategic goal measures for this arena.

In addition to achieving our strategic goal measures, it is noteworthy to describe the NRC's progress in reviewing application submissions from the Duke, Cogema, Stone & Webster (DCS) to construct a mixed-oxide (MOX) fuel fabrication facility on the DOE's Savannah River site near Aiken, South Carolina. The proposed use of MOX fuel is part of a national non-proliferation effort to dispose of surplus weapons-grade plutonium by irradiating it in existing commercial light-water reactors. The NRC completed and issued a draft environmental impact statement (EIS) in February 2003. Then, in March 2003, the NRC held public meetings throughout the area surrounding the site to facilitate public comments on the draft EIS. In April 2003, the NRC issued a revised draft safety evaluation report that documents the NRC's review of the revised construction authorization request submitted by DCS on October 31, 2002.

Nuclear Waste Safety

Strategic Goal: Prevent significant adverse impacts from radioactive waste to the current and future public health and safety and the environment, and promote the common defense and security.

Nuclear Waste Safety encompasses regulatory activities associated with the decommissioning of nuclear reactors and other facilities, storage of spent nuclear fuel, transportation of radioactive materials, and disposal of radioactive waste. For FY 2002 and 2003, the NRC met all four of its strategic goal measures for this arena.

Over the past few years, the NRC has continued to build and refine the regulatory framework for evaluating the license application for the proposed Yucca Mountain repository. In FY 2003, the NRC published a final rule which addresses unlikely events for the proposed Yucca Mountain repository that can be excluded from certain required assessments due to their low probability of occurrence.

Also in FY 2003, the NRC issued the YMRP, an important companion to the rules in 10 Code of Federal Regulations (CFR) Part 63. The YMRP describes the information that the NRC is to review in the license application, as well as the criteria for determining whether issues have been satisfactorily addressed. The NRC expects DOE to file its license application in late 2004.

International Nuclear Safety Support

Strategic Goal: Support U.S. interests in the safe and secure use of nuclear materials and in nuclear nonproliferation.

This arena encompasses international nuclear policy formulation, export-import licensing for nuclear materials and equipment, treaty implementation, nuclear proliferation deterrence, international safety assistance, and safeguards support and assistance. All three measures established for this arena were met in FY 2002 and in FY 2003.

During FY 2003, the NRC continued to provide extensive support to international developments in response to the possible terrorist use of radiological dispersal devices (RDD) and radiological exposure devices. This support included extensive participation by the NRC Chairman and senior management in the IAEA International Conference on the Security of International Sources in Vienna, Austria, in March 2003. In addition, during technical meetings held in Vienna in March and July 2003, NRC staff supported the IAEA in developing its revised Code of Conduct for the control and security of radioactive sources. NRC staff contributions toward the IAEA's revised Code of Conduct were particularly notable in categorizing the sources of greatest concern.

PRESIDENT'S MANAGEMENT AGENDA

In August 2001, the President launched a management reform agenda targeted to "address the most apparent deficiencies where the opportunity to improve performance is the greatest." The Governmentwide initiatives of the President's Management Agenda are intended to make Government more citizen-centered, results-oriented, and market-based and to actively promote competition. As a result, the President identified five Governmentwide goals: (1) Strategic Management of Human Capital, (2) Competitive Sourcing, (3) Improved Financial Management,

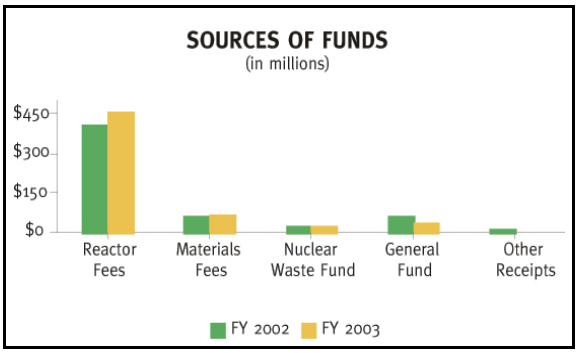
(4) Expanded E-Government, and (5) Budget and Performance Integration. The NRC is actively responding to the call from the President to improve the management and performance of the Federal Government. Chapter 2 of this report discusses our accomplishments in these important areas.

FINANCIAL PERFORMANCE OVERVIEW

As of September 30, 2003, and 2002, the financial condition of the NRC was sound with respect to having sufficient funds to meet program needs and adequate control of these funds in place to ensure obligations did not exceed budget authority. The NRC prepared its financial statements in accordance with the accounting standards codified in the Statements of Federal Financial Accounting Standards (SFFAS) and Office of Management and Budget (OMB) Bulletin No. 01-09, *Form and Content of Agency Financial Statements*.

Sources of Funds

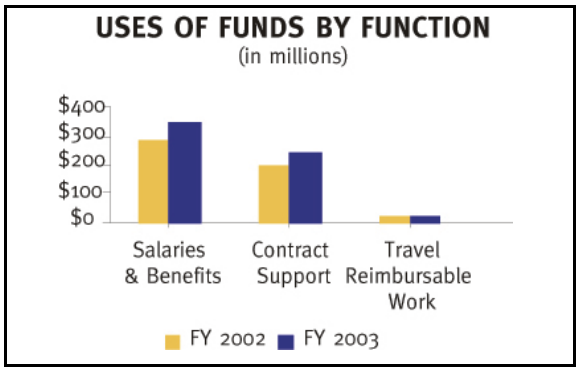
The NRC has two appropriations, Salaries and Expenses and Office of the Inspector General (OIG), and funds for both appropriations are available until expended. The NRC's total new FY 2003 budget authority was $584.6 million. Of this amount, $577.8 million is for the Salaries and Expenses appropriation and $6.8 million is for the Office of the Inspector General appropriation. This represents an overall increase in new budget authority of $26.0 million over FY 2002 ($25.4 million for the Salaries and Expenses Appropriation and $0.6 million for the Office of the Inspector General Appropriation). In addition, $41.1 million from prior-year appropriations, $3.4 million from prior-year reimbursable work, and $8.3 million for new reimbursable work to be performed for others was available to obligate in FY 2003. The sum of all funds available to obligate for FY 2003 was $637.4 million, which is a $41.4 million increase over the FY 2002 amount of $596.0 million.



The Omnibus Budget Reconciliation Act of 1990 (OBRA-90), as amended, required the NRC to collect fees to offset approximately 94 percent of its new budget authority, less the amount appropriated to the NRC from the Nuclear Waste Fund for FY 2003. The NRC collected $526.3 million in FY 2003. This is 100 percent of the recovery requirement. For FY 2002, OBRA-90 required NRC to collect approximately 96 percent of its new budget authority, excluding appropriations from the Nuclear Waste Fund.

Uses of Funds by Function

The NRC incurred obligations of $597.0 million, which was an increase of $38.3 million over FY 2002. Approximately 57 percent of obligations were used for salaries and benefits. The remaining 43 percent was used to obtain technical assistance for the NRC's principal regulatory programs, to conduct confirmatory safety research, to cover operating expenses, (e.g., building rentals, transportation, printing, security services, supplies, office automation, training), staff travel, and reimbursable work. The unobligated budget authority available at the end of FY 2003 was $40.4 million, which is an increase over the FY 2002 amount of $37.3 million. Of this $40.4 million, $5.7 million is for reimbursable work and $34.7 million is available to fund critical needs in FY 2004.



Audit Results

The NRC received an unqualified audit opinion on its FY 2003 financial statements, with no material internal control weaknesses and no substantial noncompliances with the Federal Financial Management Improvement Act (Improvement Act). This was the 10th consecutive year the NRC received an unqualified opinion. In addition, during FY 2003, the auditors evaluated the NRC's corrective actions on the agency's only material internal control weakness regarding the implementation of SFFAS Number 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government.* The auditors concluded that the actions taken adequately addressed the material weakness and the associated substantial noncompliance with FFMIA; therefore, the cost accounting reportable condition in the current year is not a material weakness nor a substantial noncompliance with the Improvement Act.

For FY 2003, the auditors identified one new reportable condition concerning system security access. In addition to cost accounting, four reportable conditions were carried over from FY 2002. Three of these reportable conditions remained open at the end of FY 2003 concerning the development of the hourly rate for license fees, accounting for internal use software, and contracts in close-out. The agency expects to fully implement corrective action during FY 2004 for the open reportable conditions.

Financial Statement Highlights

The NRC's financial statements summarize the financial activity and financial position of the agency. The financial statements, footnotes, and the balance of the required supplementary information, appear in Chapter 3: Auditors' Reports and Financial Statement. Analysis of the principal statements follows.

Analysis of the Balance Sheet

The NRC's assets were approximately $276.2 million as of September 30, 2003. This is an increase of $11.8 million from the end of FY 2002 and is mainly due to an increase in Fund Balance with Treasury. The assets reported in NRC's Balance Sheet are summarized in the accompanying table.

The Fund Balance with Treasury represents the NRC's largest asset of $193.4 million as of September 30, 2003, an increase of $12.0 million from the FY 2002 year-end balance. This balance accounts for approximately 70 percent of total assets and represents appropriated funds, collected license fees, and other funds maintained at the U.S. Treasury to pay current liabilities.

ASSET SUMMARY (in millions)		
	FY 2003	FY 2002
Fund Balance with Treasury	$193.4	$181.4
Accounts Receivable, Net	50.2	44.8
Property, Plant, & Equipment, Net	29.6	36.9
Other	3.0	1.2
Total Assets	$276.2	$264.3

Accounts Receivable, Net, as of September 30, 2003, was $50.2 million and includes an offsetting allowance for doubtful accounts of $2.8 million. This is a 12 percent increase over the FY 2002 year-end Accounts Receivable, Net, balance of $44.8 million. Accounts Receivable Due from the Public was $47.6 million, representing 17 percent of total assets.

The value of Property, Plant, and Equipment, Net, was $29.6 million, representing 11 percent of total assets. The majority of the balance is comprised of nuclear reactor simulators, leasehold improvements, and computer hardware and software. The Property, Plant, and Equipment line item reflects the adoption of capitalizing the full costs of developing internal use software, as required by SSFAS Number 10, *Accounting for Internal Use Software*, implemented on October 1, 2000.

The NRC's liabilities were $134.6 million as of September 30, 2003. The accompanying table shows a decrease in Total Liabilities of $1.9 million from the FY 2002 year-end balance of $136.5 million. Other Liabilities include $49.5 million for recoveries from unbilled accounts receivable, $8.1 million for accrued salaries to employees, and $30.0 million for accrued annual leave. Of the agency's liabilities, $40.8 million were not covered by budgetary resources, which is a slight increase over the balance as of September 30, 2002. Liabilities not covered by budgetary resources are unfunded pension expenses, accrued annual leave, and

LIABILITIES SUMMARY (in millions)		
	FY 2003	FY 2002
Accounts Payable	$27.3	$28.4
Federal Employee Benefits	9.1	9.1
Other Liabilities	98.2	99.0
Total Liabilities	$134.6	$136.5

future workers' compensation. The Federal budget process does not recognize the cost of future benefits for today's employees. Instead, the Federal budget process recognizes those costs in future years when they are actually paid.

The difference between total assets and total liabilities, net position, was $141.6 million as of September 30, 2003. This is an increase of $13.7 million from the FY 2002 year-end balance. Unexpended Appropriations is the amount of authority granted by Congress that has not been expended. Cumulative Results of Operations represent net results of operations since the NRC's inception. The decrease is primarily the result of a $7.3 million decrease in Property, Plant, and Equipment, Net.

NET POSITION SUMMARY (in millions)

	FY 2003	FY 2002
Unexpended Appropriations	$150.3	$128.3
Cumulative Results of Operations	(8.7)	(0.4)
Total Net Position	$141.6	$127.9

Analysis of the Statement of Net Cost

The Statement of Net Cost presents the net cost of NRC's four strategic arenas as identified in the NRC Annual Performance Plan. The purpose of this statement is to link program performance under GPRA reporting to the cost of programs. The NRC's net cost of operations for the year ended September 30, 2003, was $63.6 million, which is a decrease of $15.6 million over the FY 2002 net cost of $79.2 million. Net costs by strategic arena are shown in the accompanying table.

NET COST OF OPERATIONS (in millions)

	FY 2003	FY 2002
Nuclear Reactor Safety	$(61.9)	$(43.5)
Nuclear Materials Safety	34.0	38.7
Nuclear Waste Safety	77.6	72.1
International Nuclear Safety Support	13.9	11.9
Net Cost of Operations	$63.6	$79.2

Total exchange revenue for the year ended September 30, 2003, was $537.5 million, which is an increase of $64.4 million over the exchange revenue of $473.1 million for the year ended September 30, 2002. Exchange revenue is derived from fees for licensing inspections, other services, and annual fees assessed in accordance with 10 CFR Parts 170 and 171.

Analysis of Statement of Changes in Net Position

The Statement of Changes in Net Position reports the change in net position during the reporting period. Net position is affected by changes in its two components—Cumulative Results of Operations and Unexpended Appropriations. The increase in Net Position of $13.7 million from FY 2002 to FY 2003 is due primarily from the net change in Cumulative Results of Operations of $(8.3) million and an increase in Unexpended Appropriations of $22.0 million.

Analysis of the Statement of Budgetary Resources

The Statement of Budgetary Resources shows the sources of budgetary resources available and the status at the end of the period. It presents the relationship between budget authority and budget outlays, and reconciles obligations to total outlays. For FY 2003, NRC had Budgetary Resources available of $637.4 million, the majority of which was derived from new budget authority. This represents a 7 percent increase over FY 2002 budgetary resources available of $596.0 million.

For FY 2003, the Status of Budgetary Resources showed obligations of $597.0 million, or 94 percent of funds available. This is comparable to FY 2002 obligations of $558.7 million, also 94 percent of funds available. Total Outlays for FY 2003 were $574.3 million, which represents a $58 million increase from FY 2002 total Outlays of $516.1 million.

Analysis of the Statement of Financing

The Statement of Financing is designed to provide the bridge between accrual-based (financial accounting) information in the Statement of Net Cost and obligation-based (budgetary accounting) information in the Statement of Budgetary Resources by reporting the differences and reconciling the two statements. This reconciliation ensures that the proprietary and budgetary accounts in the financial management system are in balance. The Statement of Financing takes Budgetary Obligations of $597.0 million and reconciles to the Net Cost of Operations of $63.6 million by deducting non-budgetary resources, costs not requiring resources, and financing sources yet to be provided.

SYSTEMS, CONTROLS, AND LEGAL COMPLIANCE

This section provides information on NRC's compliance with the:

- Federal Managers' Financial Integrity Act
- Federal Financial Management Improvement Act
- Prompt Payment Act
- Debt Collection Improvement Act
- Biennial Review of User Fees
- Inspector General Act
- Other key legal and regulatory requirements

Federal Managers' Financial Integrity Act

The Federal Managers' Financial Integrity Act (Integrity Act) mandates that agencies establish controls that reasonably ensure that: (i) obligations and costs comply with applicable law; (ii) assets are safeguarded

INTEGRITY ACT STATEMENT

The U.S. Nuclear Regulatory Commission evaluated its management controls and financial management systems for FY 2003, as required by the Federal Managers' Financial Integrity Act. On the basis of the NRC's comprehensive management control program, I am pleased to certify, with reasonable assurance, that the agency is in compliance with the provisions of this act.

Nils J. Diaz
Chairman
U.S. Nuclear Regulatory Commission
November 20, 2003

against waste, loss, unauthorized use, or misappropriation; and (iii) revenues and expenditures are properly recorded and accounted for. This act encompasses program, operational, and administrative areas as well as accounting and financial management. It also requires the Chairman to provide an assurance statement on the adequacy of management controls and conformance of financial systems with Governmentwide standards.

Management Control Review Program

Managers throughout the NRC are responsible for ensuring that effective controls are implemented in their areas of responsibilities. Each office director and regional administrator prepared an annual assurance statement that identified any control weaknesses that required the attention of the NRC's Executive Committee on Management Controls. These statements were based on various sources and included:

- Management knowledge gained from the daily operation of agency programs and reviews.
- Management reviews.
- Program evaluations.
- Audits of financial statements.
- Reviews of financial systems.
- Annual performance plans.
- Inspector General and General Accounting Office reports.
- Reports and other information provided by the congressional committees of jurisdiction.

The NRC's Executive Committee on Management Controls is comprised of senior executives from offices of the Chief Financial Officer and the Executive Director of Operations, with the General Counsel and the Inspector General participating as advisors. The committee met and reviewed these individual assurance statements. The committee then advised the Chairman whether the NRC had any management control deficiencies serious enough to be reported as a material weakness or material noncompliance.

The NRC's ongoing management control program requires, among other things, that management control deficiencies are integrated into offices' and regions' annual operating plans. The operating plan process has provisions for periodic updates and for attention from senior managers. The management control information in these plans, combined with the individual assurance statements discussed previously, provides the framework for monitoring and improving the agency's management controls on an ongoing basis.

FY 2003 Integrity Act Results

The NRC evaluated its management control systems for the fiscal year ending September 30, 2003. This evaluation provided reasonable assurance that the agency's management controls achieved their intended objectives. As a result, management concluded that the NRC did not have any material weaknesses in its programmatic or administrative activities. During FY 2003, a prior-year auditor-identified material weakness concerning implementation of managerial cost accounting was remediated. The section under "FY 2003 Improvement Act Results" contains a complete description of the corrective actions taken to resolve the issues associated with managerial cost accounting.

Federal Financial Management Improvement Act

The Improvement Act requires each agency to implement and maintain systems that comply substantially with: (i) Federal financial management system requirements, (ii) applicable Federal accounting standards, and (iii) the standard general ledger at the transaction level. The act requires the Chairman to determine whether the agency's financial management systems comply with the Improvement Act and to develop remediation plans for systems that do not comply.

FY 2003 Improvement Act Results

As of September 30, 2003, the NRC evaluated its financial systems to determine if they complied with applicable Federal requirements and accounting standards required by the Improvement Act. The following seven systems were evaluated: the Federal Financial System, Human Resources Management System, Cost Accounting System, Advice of Allotments/Financial Plan, Capitalized Property System, Fee Billing Systems, and Controller Resource Database System.

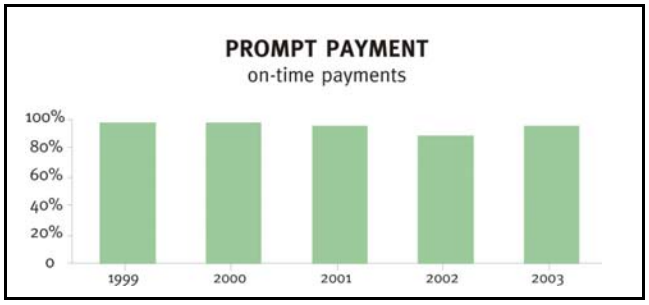
The Chairman of the NRC determined that as of September 30, 2003, NRC financial management systems were in substantial compliance with the Improvement Act. In making his determination, the Chairman considered all the information available to him, including the NRC Executive Committee on Management Control's report on the effectiveness of internal controls and OIG audit reports. He also considered the results of the financial management systems reviews conducted by the agency.

At the end of FY 2002, the NRC had one finding of substantial noncompliance with the Improvement Act, for failure of the Cost Accounting System to meet Governmentwide financial management systems requirements and applicable Federal accounting standards. During FY 2003, NRC completed a comprehensive assessment of its Cost Accounting System to identify noncompliance issues associated with system requirements, security requirements, and SFFAS Number 4.

During FY 2003, the NRC developed a remediation plan to aggressively implement corrective actions to resolve all Improvement Act, system security, and SFFAS Number 4 noncompliance issues. All of the remediation plan corrective actions were completed by the end of FY 2003. Corrective actions included the following tasks to improve the Cost Accounting System:

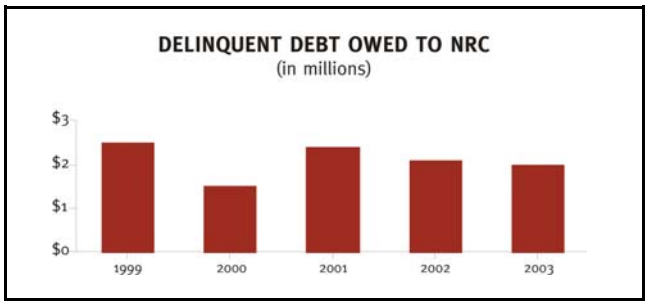
- Provide agency managers with timely quarterly reports for decisionmaking.
- Employ a process to assign and distribute the full cost of outputs.
- Improve cost allocation methodology.
- Employ a process to link responsibility segments to measurable costs of output.
- Improve system security and efficiency issues.

Prompt Payment



The Prompt Payment Act requires Federal agencies to make timely payments to vendors for supplies and services, to pay interest penalties when payments are made after the due date, and to take cash discounts when they are economically justified. From FY 2002 to FY 2003, the NRC had an increase of 1,584 invoices (from 6,544 to 8,128) that were paid and subject to the Prompt Payment Act. For FY 2003, the NRC increased its on-time payments subject to the Prompt Payment Act from 87 percent in FY 2002 to 94 percent in FY 2003. The amount of interest penalties incurred during FY 2003 was $2,927, which is a significant decrease over the FY 2002 amount of $7,647. The agency continued to make over 99 percent of its vendor payments electronically.

Debt Collection



The Debt Collection Improvement Act is intended to enhance the ability of the Federal Government to service and collect debts. The agency's goal is to maintain the delinquent debt owed to the NRC, at year-end to less than one percent of its annual billings. The NRC continues to meet this goal and has kept delinquent debt to less than one percent for the past 8 years. Delinquent debt at the end of FY 2003 was $2.0 million. This is a decrease of $0.1 million over FY 2002 and a decrease in the number of outstanding receivables from 280 to 233. The NRC continues to aggressively pursue the collection of delinquent debt and continues to timely refer all eligible delinquent debt over 180 days to the U.S. Treasury for collection.

Biennial Review of User Fees

The Chief Financial Officers (CFO) Act requires agencies to conduct a biennial review of fees, royalties, rents, and other charges imposed by agencies, and make revisions to cover program and administrative costs incurred. During FY 2002 and FY 2003, the NRC reviewed its fees subject to the biennial review requirement. Each year, the NRC revises the hourly rates for license and inspection fees and adjusts the annual fees to meet the fee collection requirements of the Omnibus Budget Reconciliation Act of 1990, as amended.

The most recent changes to the license, inspection, and annual fees are described in the *Federal Register* (68 FR 36714, June 18, 2003). The following fees and charges were also revised to more

appropriately recognize actual costs: fees for public use of the auditorium, administrative charges imposed on delinquent debt, fees for search and review time to respond to Freedom of Information Act and Privacy Act requests, and license fees based on average number of hours. Reviews of other types of fees concluded that fee revisions were not warranted at this time.

Treasury Performance Measure Summary

Treasury has five key elements for measuring how agencies complied with reporting requirements for the Federal Agencies Centralized Trial Balance Statement (FACTS I) and intragovernmental activity. Overall for FY 2002, the NRC complied with the five reporting elements for timely reporting, reconciliation of beginning and ending net position differences, reliability of FACTS I reporting, consistency of audited financial statements to FACTS I reporting, and intragovernmental activity for elimination of differences. Treasury has not issued its FY 2003 Performance Measure Summary; however, based on our self-evaluation, NRC also met the requirements for this fiscal year.

Inspector General Act

The agency has established and continues to maintain an excellent record in resolving and implementing open audit recommendations presented in Office of the Inspector General (OIG) reports. Section 5(b) of the Inspector General Act requires agencies to report on final actions taken on OIG audit recommendations. This information as well as data concerning disallowed costs determined through contract audits conducted by the Defense Contract Audit Agency can be found in Appendix B.

Improper Payments

Improper payments continue to be at low risk for the agency. The NRC continues to evaluate its internal controls to guard against improper payments and monitors and reports on all improper payments within its programs. At the present time, NRC's inventory of functional payment areas consists of commercial vendor, travel, and payroll payments and refunds issued to NRC licensees.

OMB met with all CFO Act agencies regarding the implementation of the Improper Payments Information Act. OMB supported NRC's position that there were no significant risks of improper payments at the NRC based on the review of its programs in FY 2002. In addition, the General Accounting Office reviewed the FY 2002 improper payment data submitted by NRC and agreed that the controls in place were working and that the programs were an area of low risk. The NRC does not administer any grant, loan, or entitlement programs.

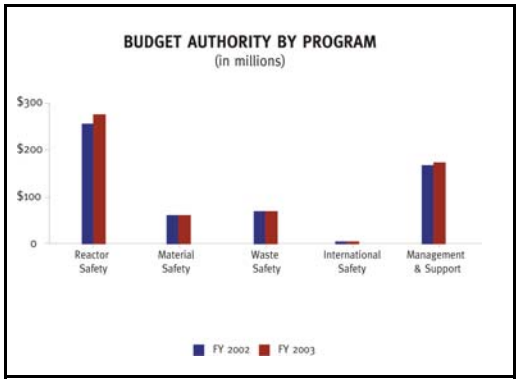
For FY 2003, NRC made 171,930 payments and identified 84 as improper payments, or less than one-half of one percent. The dollar value of improper payments was $88.6 thousand out of total payments of $618.4 million.

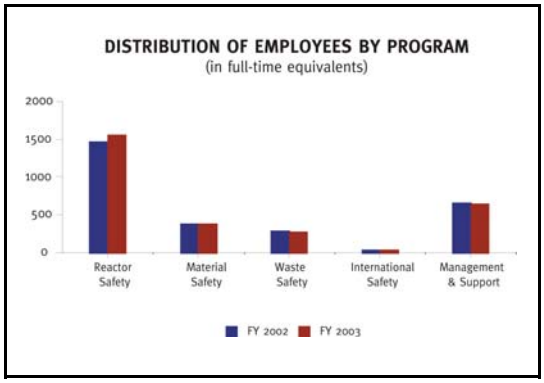
Chapter 2

Program Performance

Measuring and Reporting Our Performance

This chapter presents information on the program-specific performance of the NRC during FY 2003. The presentation begins with a discussion evaluating the NRC's security and safeguards programs followed by a summary of the NRC's program performance for Nuclear Reactor Safety, Nuclear Materials Safety, Nuclear Waste Safety, and International Nuclear Safety Support. Within each program, the discussion of performance includes an overview of the key initiatives and some of the major accomplishments. The discussion also includes program-specific performance results for NRC goals and measures, along with relevant budget information and the results of all program evaluations or studies completed during FY 2003.





Our Performance Measurement System

The NRC's performance measurement system includes strategic goals and strategic goal measures, as well as performance goals and performance goal .0measures. The strategic goals represent the agency's mission and reflect the overall outcomes to be achieved.

The NRC's performance goals, which are the key contributors to achieving the agency's strategic goals, focus on outcomes. The performance measures associated with each goal indicate how effectively the NRC is achieving its performance goals and establish the basis for performance management. The measures also establish how far and how fast the agency will move in the direction established by the performance goals. The NRC is currently reviewing performance measures as part of the triennial update of our Strategic Plan to determine whether the NRC can find more effective ways to measure and report our performance to the American public.

Performance Data Completeness and Reliability

In order to manage for results, it is essential for the NRC to assess the completeness and reliability of our performance data. Comparisons of actual performance with the projected levels are possible only if the data used to measure performance are complete and reliable. The Reports Consolidation Act requires the Chairman of the NRC to assess the completeness and reliability

of the performance data used in this report. OMB Circular No. A-11 describes specifically how an agency should assess the completeness and reliability of its performance data.

Data Completeness

OMB considers data to be complete if an agency reports actual performance data for every performance goal and indicator in the annual plan. Actual performance data may include preliminary data if those are the only data available when the agency sends its report to the President and Congress. The data in this report meet OMB's requirements for data completeness, in that we have reported actual or preliminary data for every strategic and performance goal measure.

Data Reliability

OMB considers data to be reliable when agency managers and decision makers do not demonstrate either a refusal or a marked reluctance to use the data in carrying out their responsibilities. Agency managers and decision makers at the NRC use the data contained in this report on an ongoing basis in the normal course of their duties. As such, they do not demonstrate either a refusal or a marked reluctance to use the data in carrying out their responsibilities. Thus, the data in this report meet OMB's requirements for data reliability.

HOMELAND SECURITY

Overview

For over 25 years, the NRC has required that its major licensees maintain security programs. As a result of the September 11, 2001, terrorist attacks, the NRC launched a comprehensive evaluation of the security and safeguards programs of nuclear power plants, nuclear materials and waste facilities, and radioactive material transportation activities.

Many significant actions have been taken to enhance the security of NRC-licensed activities since September 11, 2001. These actions contribute to the common defense and security.

In FY 2003, the NRC used a risk-informed approach to conduct a comprehensive review of the security and safeguards requirements of licensed materials. As a result of this review, orders were issued to certain NRC and Agreement State licensees, requiring implementation of additional security measures in light of the existing threat environment. Many of those measures had already been put in place voluntarily by licensees; however, the orders provided the means to make those measures legally binding and to ensure consistent implementation.

Security Enhancements Resulting from a Change in the Threat Environment

Prompt enhancements to security have been achieved by advisories which have been issued to licensees to describe short-term changes in the threat environment. This was the tool used to advise licensees of potential threats posed by the events following the terrorist attacks of September 11, 2001, and this approach will continue to be used in the future to achieve prompt actions. Security enhancements have also been accomplished by the issuance of orders requiring certain categories of licensees to implement changes to upgrade their security programs.

Power Reactor Licensees

The NRC has required enhancements designed to raise the level of security at nuclear power reactors by requiring upgraded security in the areas of physical protection, access authorization (including improved background checks), security force training and qualification, security force work hours, and protection against a revised design basis threat (DBT). The DBT is characterized by the type, composition, and capabilities of an adversary. The DBT is used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material. Many of these security measures had already been put in place voluntarily by licensees; however, the orders provided the means to make those measures legally binding and to ensure consistent implementation.

Force-on-force exercises (simulated commando-style attacks on power reactors) are conducted to assess and improve, as necessary, performance of defensive strategies at licensed facilities. These exercises were temporarily suspended immediately following the terrorist attacks of September 11, 2001 because such exercises would have been a significant distraction to licensee security forces which were at the highest level of security alert. NRC security staff instead focused on strengthening and monitoring security improvements implemented by licensees in response to NRC advisories.

In February 2003, the NRC decided to expand the force-on-force exercise program. The pilot exercises are aimed at reducing artificialities, thereby increasing the realism of the exercises and improving NRC's processes for assessing the licensees' readiness to respond to the design basis threat. In resuming these exercises, the NRC also increased the frequency at power reactor facilities from once every eight years to once every three years.

The force-on-force exercises have been and are intended to be a primary means to conduct performance-based testing of a licensee's security force and its ability to prevent radiological sabotage. However, they represent only one aspect of assessing compliance with NRC security requirements. The NRC's security oversight program provides an overall assessment of plant security.

Other Licensees

The NRC has been thoroughly reevaluating its safeguards and security programs and continues to devote considerable effort to determine what actions are needed to enhance the security of radioactive materials licensed by the NRC for medical, industrial, and academic uses. The emphasis of this reevaluation has been on preventing the utilization of materials that present higher risks to public health and safety in RDDs. The objective of the NRC's programs to control radioactive materials is to ensure the protection of the public health and safety, the environment and to promote the Nation's common defense and security. The overall approach is risk-informed, focuses on radioactive materials of greatest concern, and uses measures that are based on a computational methodology that systematically evaluated radioactive materials for RDD concerns. The actions we have taken and the goal of our continuing efforts to enhance security are to ensure that:

- RDD attacks are prevented by identifying, adequately securing, and appropriately monitoring radioactive materials of greatest concern (prevent events).
- Response organizations are adequately prepared for a potential RDD attack (limit consequences of events).

- International and domestic organizations are addressing RDD issues in an integrated, consistent manner (communication and coordination).

The NRC has worked with the DOE and other agencies to increase the protection of radioactive sources of concern which could be used in a RDD. This cooperation included a joint DOE/NRC working group which determined the types and quantities of radioactive sources that are of greatest concern from an RDD perspective. The working group outlined actions to increase controls on these sources and prevent access to these sources by unauthorized persons.

Actions recommended by the working group included: verification of the legitimacy of the applicants for licenses; requirements governing the security of high risk sources while in transit, in storage, and in use; controls on access to sources to prevent diversion by an insider; requirements for tracking and keeping an inventory of high-risk sources to ensure that the source has not been lost or stolen; export and import controls on high-risk sources; more frequent inspections to verify the adequacy of the controls, and measures to ensure safe disposal. The purpose is to establish cradle-to-grave security for these sources.

In order for terrorists to accomplish their objective for the malevolent use of radioactive materials, they need to first gain access to radioactive material. Our regulatory program is intended to prevent this access, while allowing beneficial use of the radioactive material. NRC's authority is limited to radioactive materials pursuant to the Atomic Energy Act, as amended. Most naturally occurring and accelerator-produced radioactive materials are regulated by the States, not NRC. The NRC also issued orders for security enhancements at Category I and III fuel cycle facilities and independent spent fuel storage installations.

Vulnerability Assessments

The NRC continues to assess potential vulnerabilities of licensed nuclear facilities and nuclear materials, and has identified appropriate mitigating measures. The NRC has completed the initial assessment of power reactor vulnerabilities to intentional malevolent use of commercial aircraft in suicidal attacks and has supported a focused research program to understand the vulnerabilities of various classes of facilities to an expanded spectrum of attacks. These assessments will provide the technical bases for future regulatory decisions.

Incident Response

Another vital NRC activity is our incident response program. The NRC continues to work with DHS and other Federal agencies on the revision of Federal response plans and development of a unified National Response Plan. In late February 2003, the NRC began sharing nuclear security incident information with registered stakeholders having a "need to know" through a protected web server to facilitate faster exchange and common understanding of such information. The NRC has conducted and participated in a number of integrated exercises involving Federal, State, and local agencies to examine and enhance the coordinated response to radiological events. Incident response capability has been enhanced by increasing the number of emergency exercises in which the NRC participates with other Federal agencies. One example, the TOPOFF-2 exercise in May 2003 was the largest and most complex Federal interagency exercise ever conducted.

The Office of Nuclear Security and Incident Response Improvements

The NRC has recruited aggressively to address our staffing needs in the Office of Nuclear Security and Incident Response (NSIR). Since April 2002, when the office was created, we have hired additional highly qualified individuals with broad expertise in counter-terrorism and intelligence analysis, nuclear security and safeguards, information security, and incident response. Many of the newly hired staff have experience in working in the U.S. Secret Service, U.S. Marine Corps, U.S. Army, U.S. Navy, U.S. Air Force, U.S. Coast Guard, the Defense Threat Reduction Agency, the National Security Agency, DOE, and the Federal Aviation Administration.

In FY 2003, NRC reinforced its ties to DHS in a number of areas. This has included efforts to initiate the National Response Plan and strengthen existing coordination with other agencies and organizations, such as the Homeland Security Council, Federal Bureau of Investigation (FBI), and the Central Intelligence Agency (CIA) to ensure awareness of threats and enhance the communication of threat information, and other enhancements consistent with the Homeland Security Act. The NRC has assigned full-time staff to the Terrorist Threat Integration Center at the CIA, as well as part-time liaison staff to the National Joint Terrorism Task Force at the FBI.

Coordination with other Federal Organizations

The NRC has increased interactions with State and local governments for support of nuclear site security and response to incidents. This coordination has strengthened the already close ties between NRC-licensed facilities and the State and local agencies.

In September 2002, February 2003, and most recently in March 2003, when the Nation's threat level was raised to "High (Orange)," newly developed protective measures were successfully implemented for use by NRC and its licensees in connection with the Homeland Security Advisory System.

In March 2003, consistent with the launch of Operation LIBERTY SHIELD and the increase in the national threat level to "High (Orange)," the NRC issued a nationwide safeguards advisory to Agreement States and NRC licensees authorized to possess and/or transport the types and quantities of radioactive isotopes which are of greatest concern for potential malevolent use in a RDD. We urged licensees to increase security for high-risk radioactive sources promptly and to maintain a high level of alertness to security-related matters.

In June 2003, the NRC co-hosted, with the DHS, a Homeland Security Workshop for State Homeland Security Advisors and representatives from Federal and State governments and organizations. The purpose of the workshop was to strengthen the NRC's linkages with the State Homeland Security Advisors, State Liaison Officers, and the Radiation Control Program Directors, and to increase their awareness of the DHS and NRC initiatives relating to homeland security, incident response, and other significant agency activities. The workshop was attended by approximately 300 participants representing nearly all States.

International Effort

NRC played a key role in an international conference conducted in March 2003 that was jointly sponsored by DOE, the Russian Federation, and IAEA, and was attended by representatives from over 100 nations. Conference participants discussed key issues relating to the security of high-risk radioactive sources and the actions which must be taken worldwide to improve the protection of these sources. The NRC provided extensive support to international developments in response to the possible terrorist use of RDDs and radiological exposure devices. These support activities included extensive participation by the NRC Chairman and senior management in the international conference. The NRC made key contributions to revisions of the IAEA's Code of Conduct for the safety and security of radiological sources. The U.S. Government positions were subsequently adopted at the July IAEA meeting as proposed or with modifications which were acceptable to the U.S. Government.

NRC Security

The NRC implemented specific measures in 2003 to enhance facility security at the NRC Headquarters and its Regional Offices. These measures included the following actions: increased the number of armed guards; installed perimeter security barriers; increased vehicle inspections; conducted enhanced security checks for building access; installed special mail handling equipment; and strengthened the Occupant Emergency Plan. A comprehensive redesign of the NRC's Web site was conducted to restrict access to sensitive but unclassified information, while allowing continued communication with the public on a wide variety of our nonsensitive activities.

Legislative Initiatives

We have continued to work through the Homeland Security Council and OMB to support legislative proposals to enhance security of nuclear facilities and materials. The NRC supports the enactment of provisions which would enable licensee guards to possess more powerful weaponry, enlarge the classes of NRC-regulated entities whose employees would be subject to fingerprinting and criminal history back-ground checks, expand NRC's regulatory jurisdiction to additional classes of radioactive material as a means of enhancing the protection of the public from use of the materials in radiological dispersal devices, and add new Federal criminal sanctions to cover acts that could endanger materials and activities regulated by the NRC.

NUCLEAR REACTOR SAFETY

Strategic Goal: Prevent radiation related deaths and illnesses, promote the common defense and security, and protect the environment in the use of civilian nuclear reactors.

Overview

The focus of Nuclear Reactor Safety is to ensure that civilian nuclear power reactors, as well as test and research reactors, are operating in a manner that adequately protects the health and safety of the public and the environment, while safeguarding special nuclear materials that are used in reactors. The NRC regulates 104 nuclear power reactors and 36 test and research reactors that are currently licensed to operate. The nuclear power plants generate approximately 20 percent of the nation's electricity. The primary purpose of test and research reactors is to

safely conduct research and development. Almost every field of science (including physics, chemistry and biology) uses these reactors.

The Commission's health and safety regulations provide reasonable assurance of adequate protection of public health and safety. The regulations are based on defense-in-depth principles and conservative practices that provide an adequate margin of safety.

The collective efforts of the NRC and the nuclear industry are needed to maintain safety. The NRC establishes safety standards and requirements and conducts in-depth technical reviews of reactor designs and oversees plant operations. The NRC's licensees have the responsibility to safely design, construct, and operate nuclear reactors.

Ensuring the Safe Operation of Nuclear Reactors

The NRC ensures the safety of nuclear reactors by establishing the safety standards and requirements for nuclear reactors and by conducting in-depth technical reviews as a part of licensing nuclear power plants and their operators. It also oversees plant operating performance, maintains a security and emergency response program, establishes clear health and safety regulations, conducts research to resolve safety issues, and provides technical support for developing regulations. The Nuclear Reactor Safety programs work together to achieve the agency's safety goals. Nuclear plant licensees are required to follow the agency's regulations specifying how plants are to be designed, constructed, and operated.

The NRC provides independent oversight of the plants through the Reactor Oversight Process to verify that NRC licensees are operating their plants safely and in accordance with NRC rules and regulations. If violations are found, the NRC may take enforcement actions. The security and emergency response programs ensure that licensees take adequate measures to respond to malevolent actions against reactors and that public safety measures are in place in the event that an incident occurs. The research program analyzes data from operations and independently undertakes studies that provide the basis for maintaining the safety of nuclear power plants. The following sections describe these safety programs in greater detail.

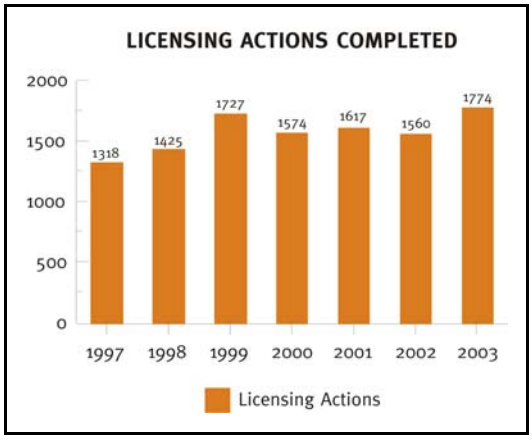
On August 14, 2003, the northeastern U.S. and Canada encountered a wide-spread electrical power outage affecting an estimated 50 million people. Nine U.S. nuclear power plants experienced rapid shutdowns (reactor trips) as a consequence of the power outage. Nuclear power plants in Canada and non-nuclear generating plants in both countries also tripped during this event.

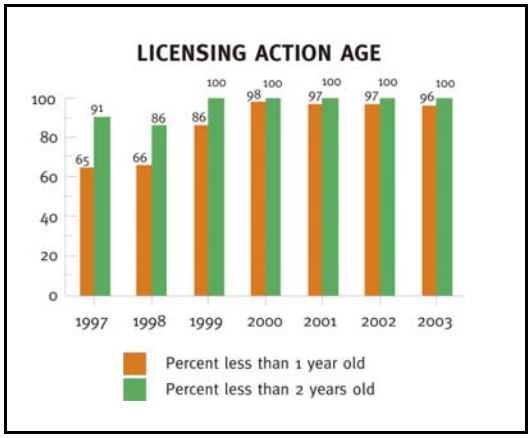
As a result of the power outage, the U.S. and Canada established a Joint Power System Outage Task Force. The Chairman of the NRC was appointed as a member of the Task Force and was named to co-Chair the Nuclear Working Group subcommittee along with the president of the Canadian Nuclear Safety Commission. The NRC's Deputy Executive Director for Reactor Programs was named a member of the Nuclear Working Group.

The Nuclear Working Group has produced a draft report detailing the response of the affected nuclear power plants to the grid disturbance. Although the report has not been finalized, initial indications are that the affected nuclear power plants automatically shut down as designed in response to the grid disturbance, and the plants were maintained in a safe shutdown condition until their restart. All the affected U.S. nuclear plants were restarted by August 22, 2003.

Licensing

The reactor licensing program ensures that operating nuclear power plants maintain adequate protection of public health and safety throughout the plant's operating life. This includes assurances that facilities are adequately designed, properly constructed, and correctly maintained and that trained and qualified operating and technical support personnel can prevent or cope with accidents and other threats to public health and safety. NRC licensing activities include reviewing license applications and changes to existing licenses, examining and licensing reactor operators, reviewing reactor events for safety significance, and improving safety regulations and guidance. The NRC met or exceeded all established measures for completing nuclear power plant licensing-related actions during FY 2003. The FY 2003 target for completed licensing actions was 1,500. The NRC completed 1,774 licensing actions in FY 2003.





The licensing program's timeliness in responding to license requests has improved since 1997. In 1997, the NRC handled 72 percent of licensee actions within one year or less at the end of the fiscal year. The FY 2003 targets for age of the licensing inventory were 96 percent for actions less than one year old at the end of the fiscal year and 100 percent for actions less than 2 years old at the end of the fiscal year. At the end of FY 2003, 96 percent of licensing actions in the working inventory were less than one year old and 100 percent of licensing actions in the working inventory were less than 2 years old.

Included in the licensing actions are responses to licensee requests to change or amend their licenses in areas such as license transfers, power uprates, initiatives involving risk-informed regulation, and voluntary conversions of plant technical specifications to an improved standard format.

Power Uprates

Since the 1970s, licensees have been applying for and implementing power uprates as a means of increasing the power output of their plants. The review process for power uprate applications provides assurance that the impacts of increasing a plant's power level are fully addressed and that plant operation at the increased power level is safe. The NRC performs comprehensive reviews of power uprate applications. These reviews focus on impacts that the power uprate would have on licensing basis analyses demonstrating overall safety of the plant.

The NRC has completed 99 such reviews as of October 1, 2003. Approximately 4,139 Megawatts electric (MWe), or an equivalent of about three large nuclear power plants, has been gained through implementation of power uprates at existing plants. In FY 2003, the NRC completed reviews for power uprates at 17 units. These uprates increased electrical generating capacity by about 260 MWe.

License Transfers

The NRC engaged in financial review activities for nuclear power plants to ensure that in light of the fact that a number of States have taken steps toward deregulation of the power market, unbundling of services, and general industry consolidation. The cases involved such issues as the sale of a passive owner's minority share and the creation of a separate holding company. During FY 2003, one license transfer was completed. Another license transfer request was withdrawn before it was issued.

New Reactors

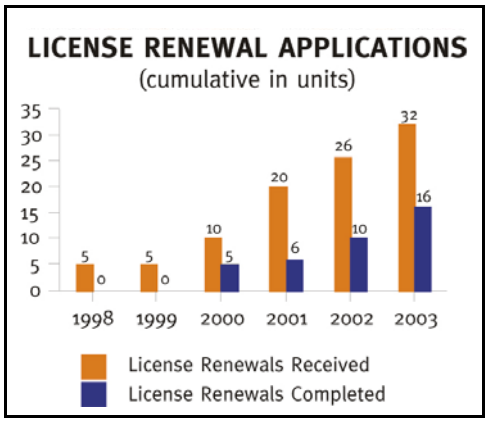
The NRC has begun new reactor licensing activities to ensure that the Commission's safety requirements and expectations will be met for future reactors. This activity is in response to the nuclear industry's interest in new reactors. In FY 2003, the NRC continued its review of Westinghouse's application for certification of the AP1000 advanced reactor design, completing the draft safety evaluation report on June 16, 2003.

The NRC also continued its pre-application review of other reactor designs, including General Electric's Simplified Boiling Water Reactor (ESBWR) Design, Atomic Energy of Canada, Ltd.'s Advanced CANDU Reactor (ACR) 700, Framatome-ANP's Siedwasser-reactor (SWR)-1000, General Atomics' Gas Turbine Modular Helium Reactor (GTMHR), and the Westinghouse International Reactor Innovative and Secure (IRIS).

The agency also conducted pre-application discussions with three electric generating companies that intend to apply for early site permits. During FY 2003, applications were received for the Clinton and North Anna sites. In addition, the NRC published proposed revisions to regulations governing early reactor site permits, standard design certifications, and combined licenses. The amendments are based on the NRC's experience with the previous design certification reviews and on discussions with stakeholders about the early site permit (ESP), design certification, and combined license (COL) processes. This action is expected to improve the effectiveness of the licensing processes for future applicants.

License Renewal

The Reactor License Renewal program implements the technical and regulatory requirements for the renewal of power plant licenses. As mandated by the Atomic Energy Act, the NRC issued original reactor operating licenses for 40 years, which may be renewed for an additional 20 years. The review process for renewal applications provides continued assurance that the level of safety provided by an applicant's current licensing basis will be maintained throughout the period of extended operation. When reviewing a license renewal application, the



NRC performs a comprehensive review that focuses on the plant's passive structures and components that are subject to the effects of aging to ensure that the licensee has programs and processes in place to manage these effects.

To date, the agency has received applications to renew the licenses for 32 units and 18 sites and has issued renewed licenses for 16 units and 8 sites. The NRC is currently reviewing applications to renew the licenses for an additional 16 units and 10 sites. The NRC expects that almost all of the currently licensed units will ultimately apply to renew their licenses. The NRC met or exceeded all established schedules for completing license renewal reviews in FY 2003. The agency issued renewed licenses for Surry Units 1 and 2, North Anna Units 1 and 2, and Peach Bottom Units 2 and 3 in FY 2003.

Reactor Inspection and Performance Assessment Program

The NRC's reactor oversight process (ROP) verifies that nuclear plants are being operated safely in accordance with NRC rules and regulations. The NRC has full authority to take whatever action is necessary to protect public health and safety and may demand immediate licensee action, up to and including plant shutdown.

The ROP uses both inspection findings and performance indicators (PIs) to assess the performance of each plant within a regulatory framework of seven cornerstones of safety. The NRC performs a baseline program of inspections at each plant and may perform supplemental inspections and take additional actions as necessary to ensure that the plants address significant issues. The NRC communicates the results of its oversight process by placing plant specific inspection findings and PI information, as well as industry-level indicators, on its Web site (www.nrc.gov/NRR/OVERSIGHT/ASSESS/pi_summary.html). The NRC also conducts public meetings with licensees to discuss the results of the agency's assessment of licensees' performance.

Inspection Activities: In FY 2003, NRC inspectors spent approximately 4,000–5,000 hours per site on inspection-related activities, including direct inspection effort, inspection preparation and documentation, plant status review, and other activities. Resident inspectors, located at each site, provide the NRC's major onsite presence and carry out a significant part of the inspection program. Their primary role is to observe, evaluate, and verify the adequacy of licensees' nuclear safety activities. They accomplish this by inspecting licensee performance in operation and maintenance activities and responding to plant events

The ROP is designed to maintain safety more effectively by focusing NRC and industry attention on risk-significant activities, while reducing unnecessary regulatory burden on the licensees. It is comprised of risk-informed inspections, a significance determination process to evaluate inspection findings, licensee reported performance indicator information, and streamlined assessment and enforcement activities.

As a second layer of assessment, the agency trends the qualitative indicators of licensee safety performance, evaluates the indicators for adverse trends, and takes action to improve industry performance and/or to feedback into the agency's regulatory oversight processes.

Davis-Besse Inspection Results

In March 2002, FirstEnergy Nuclear Operating Company, the licensee for the Davis-Besse Nuclear Power Station, discovered a cavity in the plant's reactor pressure vessel (RPV) head. The NRC inspected and assessed this safety issue (Inspection Report No. 50-346/02-03, dated May 3, 2002); issued two bulletins to all pressurized-water reactor (PWR) licensees that, in part, directed licensees to report on the condition of the RPV head, past incidents of boric acid leakage, and their inspection and examination programs; and chartered The Davis-Besse Lessons Learned Task Force (DBLLTF). On September 30, 2002, the DBLLTF, in consultation with an NRC management oversight group, issued its report containing 51 recommendations. The 49 recommendations that were adopted have been prioritized and are being addressed through four action plans. Several of the recommendations involve suggested changes to the NRC's inspection program. Among the changes being considered are an increased focus on the identification of repetitive equipment problems and better management of resident inspector staffing levels. In addition, a task force is currently engaged in evaluating how the NRC evaluates and disseminates operating experience, both internally within the NRC and externally with NRC licensees and others.

Safety Research

The NRC's reactor safety research program proposes regulatory improvements, coordinates agency activities related to consensus and voluntary standards for agency use, resolves safety issues for nuclear power plants, assesses the effectiveness of selected NRC programs, and evaluates operational events to identify precursors to accidents. The agency conducts its research programs to reduce uncertainties in areas of potentially high risk or safety significance and to develop the technical basis to support realistic safety decisions. Where possible, the NRC engages in cooperative research with DOE, the nuclear industry, universities, and international partners. The research program includes the key areas of risk analysis, materials degradation, structural integrity research, new reactors, and digital safety systems research.

Risk Analysis

Work is underway to advance the state of the art and apply risk assessment methods to provide a technical basis for improving reactor regulatory programs. The reactor research program supports the agency's efforts to use risk information in all appropriate aspects of regulatory decisionmaking, applies risk assessment technology to resolve safety issues, develops a risk-informed regulatory framework, and focuses regulatory activities on the most risk significant aspects of licensed activities. The research program improves risk technology and modeling techniques, reduces uncertainties, and develops improved data. In FY 2003, the NRC continued to focus on making risk-informed changes to regulations and acceptance criteria for emergency core cooling systems (10 CFR 50.46) and the reactor pressure vessel (10 CFR 50.61), and to develop additional regulatory guidance on standards for risk analyses performed for regulatory purposes.

Fuel and Thermal-Hydraulic Research

The NRC is conducting studies of fuel behavior with advanced cladding and at high burnup. This experimental work confirms that safety is being maintained as the industry seeks the economies of advanced fuel designs and high utilization (burnup). This first of a kind experimental program, along with analytic methods that are currently under development, will

establish new safety limits for energy deposition and clad oxidation during postulated accidents. The NRC, international community, and industry are cofunding much of this work to achieve significant efficiencies.

The NRC is developing independent audit capability for assessing the performance of MOX fuels under normal, transient, and accident conditions.

The NRC has an extensive thermal-hydraulic program comprising experimental testing, model development, and validation. The application of these models and experimental results provide the technical basis for risk-informing the regulations, addressing emergent safety issues, and providing the capability for independent audit calculations for proposed new designs. Analysis of small- and large-break loss-of-coolant accidents provides the basis for risk-informing the regulations and acceptance criteria for emergency core cooling systems (10 CFR 50.46).

Structural Integrity Research

The ability of structures, systems, and components to withstand normal operational loads, design-basis loads, and accidental loads (including natural hazards, such as seismic events, tornados, and floods) is important to safe operation of nuclear power plants. Recent events related to the cracking of nickel-base alloys and associated weldments (e.g., cracking of the control rod drive mechanism nozzles at pressurized water reactors) have highlighted the importance of aging/degradation research and has focused worldwide interest on being proactive in managing the degradations; that is, finding degradation and dealing with it prior to any significant loss of safety margin. Many of the structural integrity research projects relate to the evaluation of aging and environmental effects on plant components and structures. These projects include evaluations of methods for non-destructive examination to identify potential degradation, methods for conditional assessment, degradation mechanisms, methods to evaluate performance of degraded components, and methods to repair and mitigate the potential effects of these conditions. In part, this research involves cooperative efforts with the industry and other international organizations to share operating experience and experimental data. Examination of discarded components (e.g., replaced heads) to better characterize in-service conditions and to evaluate the effectiveness of in-service inspections is a recent example of such a cooperative effort. The structural integrity research has been a key factor in developing regulatory strategies to address aging effects, including cracking of steam generator tubes, piping systems, and the reactor pressure vessel head penetrations. In addition, this research has helped to establish the technical bases to support reactor license renewal. This research also involves evaluation and validation of analytical models and methods, independent and confirmatory integrity evaluations, assessment of impact of new information, and development of technical bases for potential revision of rules and regulatory guides.

Digital Safety Systems Research

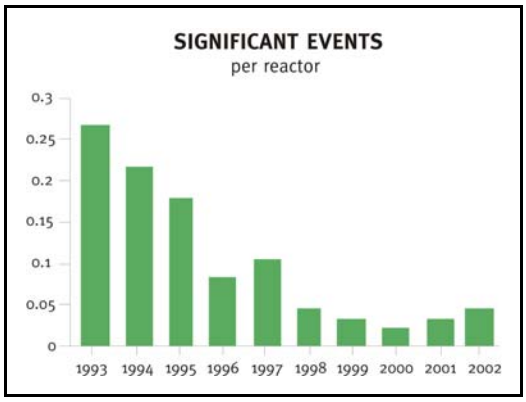
The instrumentation and control (I&C) systems originally installed in nuclear power plants use analog technology. These systems have become obsolete and replacement components are increasingly costly and difficult to obtain. Therefore, licensees are beginning to upgrade their I&C systems with software-based digital control systems. Several current projects provide the technical basis for assessing the ability of existing digital technologies to perform their intended functions under the adverse environmental conditions that may be expected in a nuclear power plant. Such conditions include electromagnetic and radio frequency interference, as well as abnormal conditions such as smoke and steam environments. The NRC is also conducting research to advance the state-of-the-art assessment of the reliability of complex digital safety

systems, including software-based and commercial off-the-shelf systems. This research leverages work that has been performed for other agencies and countries to maximize the efficient use of NRC resources.

In addition, new advanced reactor plants would be expected to use advanced digital I&C systems. Several current projects are examining emerging technologies to identify issues that must be addressed in the licensing process and provide the technical basis for the agency's safety review.

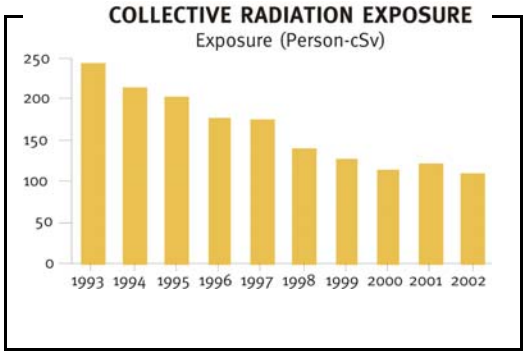
Industry Safety Indicators[1]

The NRC measures the effectiveness of its Nuclear Reactor Safety programs by the continued safe operation of nuclear power plants. In addition to monitoring the performance of individual plants, the NRC compiles data on overall safety performance using several industry-level performance indicators, some of which are included in the following pages. These indicators show significant improvement in the safety performance of nuclear power plants since 1988.



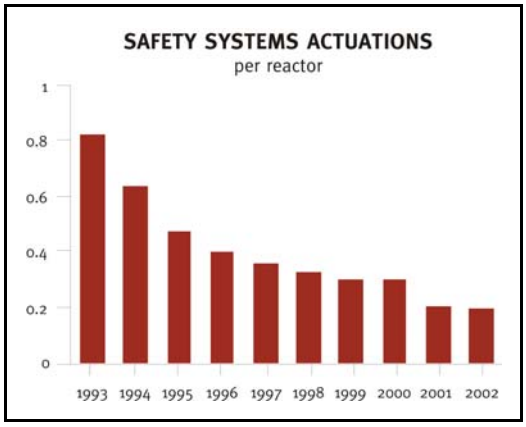
The Industry's Safety Performance Record

Several industry indicators of safety performance show significant improvement over the past 14 years. One such indicator is significant operating events. Significant events meet specific criteria, such as degradation of important safety equipment. The NRC reviews operating events and assesses their safety significance. The number of significant events has declined since 1993.

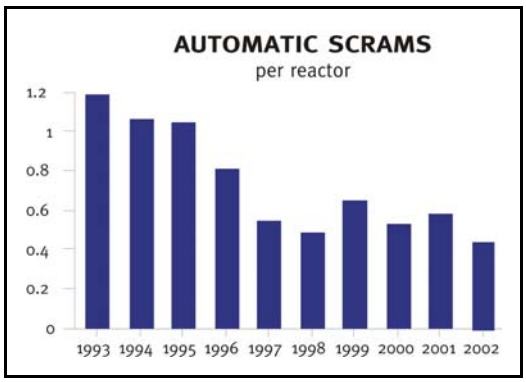


The total radiation dose received by workers at nuclear plants is an indicator of the effectiveness of the controls on personnel radiation exposure. Worker radiation dose shows a significant reduction since 1993.

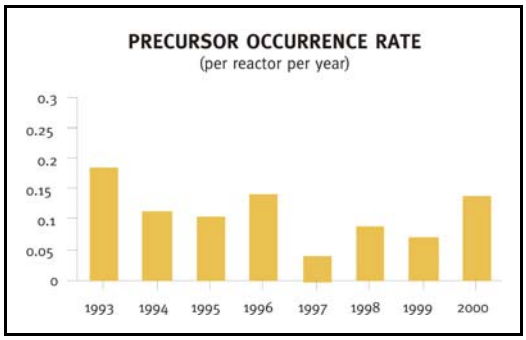
Safety systems mitigate off-normal events by providing reactor core cooling and water addition. Actuations of safety systems that are monitored include certain emergency core cooling and emergency electrical power systems. Actuations can occur as a result of "false alarms" such as testing errors or in response to actual events. The number of safety system actuations has declined since 1993.



A scram is a basic reactor protection safety function that shuts down the reactor by inserting control rods into the reactor core. Scrams can result from events that range from relatively minor incidents or human error to precursors of accidents. The number of scrams has declined steadily since 1993.



The NRC assesses the risk significance of events at plants. A precursor event is an event that has a probability of greater than 1 in 1 million of leading to substantial damage to the reactor fuel. The occurrence rate of precursor events declined since 1993. Due to the complexities associated with evaluating accident precursors, this data always lags other indicators. Final FY 2000 data is shown.



Safety system failures include any events or conditions that could prevent a safety system from fulfilling its safety function. The total number of safety system failures across the industry has declined since 1993.

Improvements in safety have occurred at a time when nuclear power generation has increased significantly, from 455,000 gigawatt hours in 1987 to approximately 780,000 gigawatt hours in 2002.

The average annual capacity factor, a measure of power plant efficiency, has increased from 62 percent in 1987 to 92 percent in 2002.

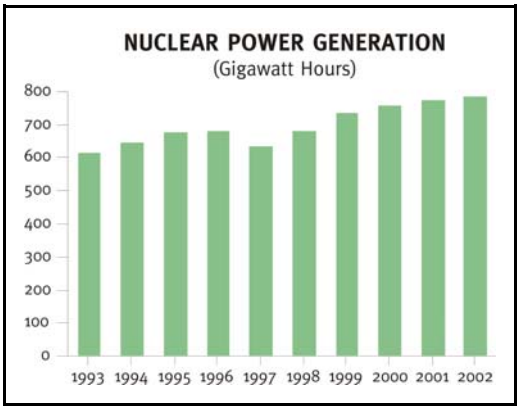
The NRC's Role in Improving Safety

The improvement in the safety performance of nuclear power plants is the result of the combined efforts of the nuclear industry and the NRC. Both the nuclear industry and the NRC have gained experience in the operation and maintenance of nuclear power facilities.

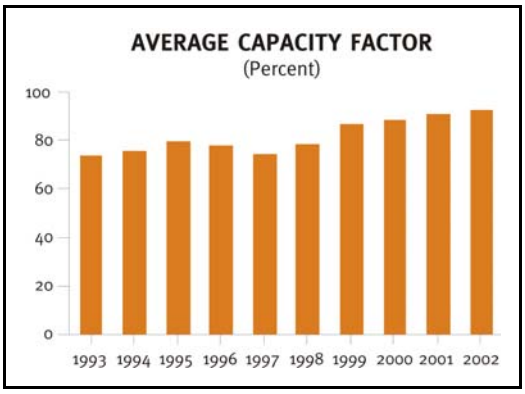
The NRC establishes the safety standards and safety requirements, performs in-depth technical reviews of proposed reactor designs, and oversees plant operating performance. It will not allow licensees to operate their plants if safety performance falls below acceptable levels.

Licensees have the primary role in maintaining safety. They are responsible for designing, maintaining and operating nuclear power plants in a manner that provides adequate protection of public health and safety.

Experience in plant operations and feedback from operating experience data have yielded a steady stream of improvements in the reliability of plant systems and components, plant operating procedures, training of power plant operators, and regulatory oversight.



Source: DOE/EIA Monthly Energy Review



Source: DOE/EIA Monthly Energy Review

ANNUAL GOALS AND MEASURES[2]

Strategic Goal: Prevent radiation-related deaths and illnesses, promote the common defense and security, and protect the environment in the use of civilian nuclear reactors.

Strategic Goal Results

The NRC has identified five measures to determine whether the agency has met its strategic goal. These are top-level measures that define the agency's success in overseeing reactor licensees. The goal of the NRC's regulatory efforts is to prevent the occurrence of any of the events described in the measures below.

Measure	1998	1999	2000	2001	2002	2003
No nuclear reactor accidents.[3]	----------Goal was achieved----------					
No deaths resulting from acute radiation exposures from nuclear reactors.[4]	----------Goal was achieved----------					
No events at nuclear reactors resulting in significant radiation exposures.[5]	----------Goal was achieved----------					
No radiological sabotages at nuclear reactors.[6]	----------Goal was achieved----------					
No events that result in releases of radioactive material from nuclear reactors causing an adverse impact[7] on the environment.	----------Goal was achieved----------					

The NRC has met all of the strategic goal measure targets.

Performance Goals

In addition to our strategic goals, the NRC has four performance goals and measures for Nuclear Reactor Safety:

1) Maintain safety, protection of the environment, and the common defense and security.
2) Increase public confidence.
3) Make NRC activities and decisions more effective, efficient, and realistic.
4) Reduce unnecessary regulatory burden on stakeholders.

Performance Goal Results

Performance Goal: Maintain safety, protection of the environment, and the common defense and security.

Measure	1998	1999	2000	2001	2002	2003
No statistically significant adverse industry trends in safety performance[8].	----------Goal was achieved----------					
No more than one event per year identified as a significant precursor of a nuclear accident[9].	----------Goal was achieved----------					
No events resulting in radiation overexposures from nuclear reactors that exceed applicable regulatory limits[10].	----------Goal was achieved----------					
No more than three releases per year to the environment of radioactive material from nuclear reactors that exceed the regulatory limits[11].	----------Goal was achieved----------					
No breakdowns of physical security that significantly weaken the protection against radiological sabotage, theft, or diversion of special nuclear materials in accordance with abnormal occurrence criteria[12].	----------Goal was achieved----------					

Results: The NRC has met all of the performance goal measure targets.

Adverse Safety Trends: The first measure tracks the trends of several key indicators of industry safety performance. The indicators provide insights into major areas of reactor performance, including reactor safety, radiation safety, and physical protection. These trends represent industry averages, rather than individual plant performance. Statistical analysis techniques are applied to each indicator to determine its long-term trend. To date, there have been no statistically significant adverse trends in any of the indicators.

Significant Precursors: The second measure tracks significant precursor events. A "significant" precursor event is defined as an event that has a probability of 1 in 1,000 or greater of leading to substantial damage to the reactor fuel. No significant precursor events have been identified since 1996. The analysis of FY 2002 and 2003 events is ongoing.[13]

Overexposures: The third measure tracks individual radiation overexposures within any nuclear power plant Radiation levels are carefully monitored within the plant, and this measure focuses on instances in which an individual is exposed to radiation levels that exceed set limits. Any exposures below these limits would not be expected to harm an individual. There have been no instances of radiation exposures that exceed regulatory limits since 1997.

Releases to the Environment: In addition to the NRC's duty to ensure safe operation within nuclear plants, the NRC has established a performance goal to ensure that the environment is not harmed by radioactive releases from the generation of nuclear power. These releases can be in the water that is used for cooling within the plant or through vents to the atmosphere.

Radioactivity releases to the environment are tracked using set regulatory limits. Any releases below these limits would not be expected to harm an individual or the environment. There have been no releases of nuclear material into the environment that exceed regulatory limits since 1997.

Security: The fifth measure reflects the effectiveness of NRC regulations that are designed to promote physical security of nuclear plants. Any breakdowns of security are reported and an information assessment team is dispatched to investigate the incident. Since 1997, there have been no breakdowns of physical security that significantly weakened protection against sabotage, theft, or diversion of special nuclear materials.

Performance Goal: Increase public confidence.

Measure	1998	1999	2000	2001	2002	2003
Complete milestones relating to collecting, analyzing, and trending information for measuring public confidence.	----------Goal was achieved----------					
Complete all the public outreaches.	----------Goal was achieved ----------					
Issue Director's Decisions for petitions filed to modify, suspend, or revoke a license under 10 CFR 2.206[14] within an average of 120 days.	----------Goal was achieved----------					

Results: The NRC met all of the performance goal measure targets.

Public Confidence: The NRC met the target related to collecting, analyzing, and trending information for measuring public confidence. The NRC has continued to use public meeting feedback forms as a measure to assess public confidence. After reviewing the feedback forms, the NRC continues to improve its interactions with the public, which include providing supporting documents, categorizing meetings to define the level of participation provided, and following up with answers to questions that cannot be addressed during the meeting. The NRC issued the latest analysis of public meeting feedback forms in August 2003, representing 112 meetings. The majority of respondents felt that the meetings achieved their intended purposes and helped the participants better understand the topics of discussion. Respondents also felt that they were given sufficient opportunities to ask questions or express their views. Comments on the meetings were constructive and assisted the NRC in developing future meeting plans.

Public Outreach: Public outreach meetings give the public opportunities for meaningful participation in NRC activities. For the second measure, the NRC held all 30 of the scheduled public outreach meetings associated with this measure. The NRC collected and considered feedback from the public and used it to define the scope and possible environmental impacts of license renewal activities. In addition, the NRC conducted outreach activities to answer the public's questions on issues related to Davis-Besse and the early site permit process.

Director's Decisions: The third measure assesses the extent to which the NRC handles Director's Decisions in an expeditious manner. Under 10 CFR 2.206, any member of the public can submit a petition asking the NRC to take an enforcement-type action against a licensee. In

the Director's Decision, the cognizant NRC Office Director grants or denies the petitioner's request. During FY 2003, the NRC issued three Director's Decisions, with an average duration of 115 days. This compares favorably with the goal of 120 days and is an improvement over the FY 2002 performance of 126 days.[15]

Performance Goal: Make NRC activities and decisions more effective, efficient, and realistic.

Measure	1998	1999	2000	2001	2002	2003
Complete specific reactor milestones in the Risk-Informed Regulation Implementation Plan.[16]	----------Goal was achieved----------					
Complete at least two key process improvements per year in selected program and support areas that increase efficiency, effectiveness, and realism.	----------Goal was achieved----------					
Complete all license renewal application reviews within 30 months.	----------Goal was achieved----------					

Results: The NRC met all of the performance goal measure targets.

Risk-Informed Regulation: The first measure focuses on progress in developing a coordinated approach to implementing risk-informed decisions throughout the agency's regulatory processes. The NRC completed the milestones in the risk-informed regulation implementation plan (RIRIP) on schedule. The milestones include submission of the final rule for combustible gas control (10 CFR 50.44) to the Commission in July 2003, and issuing draft Regulatory Guide 1122 (on standards for risk analyses used in reactor regulation) for public comment in November 2002. The final rule for combustible gas control was issued on September 16, 2003 (68FR54123).

Process Improvements: The second measure concerns actions to improve the NRC's internal processes. During FY 2003, the agency improved its processes in two key aspects of the Nuclear Reactor Safety arena, thereby increasing the effectiveness and efficiency of the reactor licensing program. First, the agency gained efficiency in the rulemaking process. Second, it improved effectiveness and efficiency in the licensing action process for power uprates through the development of review standards and other initiatives.

The first process improvement targeted rulemaking as one of the NRC activities that could be made more effective, efficient, and realistic. After reviewing the NRC's rulemaking process for a year, the interoffice Rulemaking Process Improvement Task Force issued its final report in November 2002. That report recommended a number of process improvements, including better tools for managing the rulemaking process, process changes to improve the timeliness of individual rulemakings, and earlier involvement with external stakeholders.

As a result of the findings in the report, the NRC is making significant changes to its rulemaking procedures. The improved rulemaking procedures, issued in October 2003, will improve the efficiency of the rulemaking process by clearly defining when a rulemaking is initiated, improve resource and schedule tracking for individual activities, and centralize the management of all

NRC rulemakings in order to standardize the process and meet the goal of completing individual rulemakings within a 2-year period.

The second process improvement targeted power uprate reviews as an activity in which the NRC could gain efficiencies, thereby allowing NRC to reach its goal of reducing the labor rate for reviewing licensing actions by six percent in FY 2004 and four percent in FY 2005. In June 2002, the NRC developed an integrated plan for improving the effectiveness and efficiency of power uprate reviews.

That plan describes a number of initiatives, including (1) conducting semiannual surveys of licensees regarding their plans to submit power uprate applications; (2) developing planning and scheduling tools to forecast resource needs and generate schedules with appropriate milestones to allow enhanced monitoring and early identification and resolution of problems; (3) implementing new operational level reporting for power uprates to ensure that appropriate management attention is being given to the reviews; (4) developing a formal communication plan for the power uprate program to communicate its goals and initiatives to internal and external stakeholders; and (5) developing a review standard for extended power uprates.

The extended power uprates review standard was issued for interim use and public comment on December 31, 2002, and includes (1) a clearer definition of the review scope, (2) references to existing review criteria, (3) supplemental review guidance where needed, and (4) template safety evaluations. The development of the review standard has been undertaken as part of an NRC initiative to (1) help NRC retain institutional knowledge being lost to retirement, (2) provide guidance for the large number of new hires expected over the next few years, (3) update the current Standard Review Plan, and (4) establish a sustainable legacy of review criteria, methods, and procedures.

The draft review standard is consistent with NRC's vision for having a fully operational Centralized Work Planning Center to plan, schedule, and monitor NRC work. The public comment period for the draft review standard, which expired on March 31, 2003, generated few public comments. The NRC is in the process of finalizing the review standard and expects to complete and issue the final review standard by the end of calendar year 2003.

License Renewals: The third measure is to ensure that the NRC handles license renewal reviews in an expeditious manner. The NRC completed license renewal reviews for six units in FY 2003. Most significantly, the NRC issued each of the renewed licenses well within the 22-month target.

Performance Goal: Reduce unnecessary regulatory burden on stakeholders.

Measure	1998	1999	2000	2001	2002	2003
Complete specific milestones to reduce unnecessary regulatory burden.	----------Goal was achieved----------					

Result: The NRC met this performance goal measure target.

Discussion: The target for this performance goal measure is to implement several initiatives to reduce unnecessary regulatory burden. The NRC expects to complete the initiatives in FY 2004.

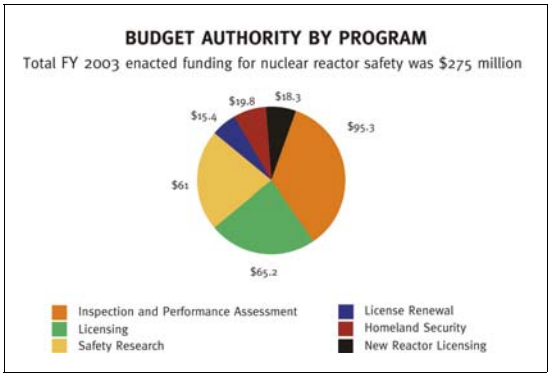
The NRC has developed an initiative to review various regulatory requirements to determine which ones could be modified to reduce unnecessary regulatory burden. The initiative also seeks to identify and address regulations that are obsolete or involve paperwork requirements. The NRC has considered suggestions from various stakeholders in its efforts to identify those requirements to review and possibly revise. The initiative is described in SECY-02-0081, "Staff Activities Related to the NRC Goal of Reducing Unnecessary Regulatory Burden on Power Reactor Licensees."

Having begun the initiative in FY 2002, the NRC has pursued the associated rulemakings and related activities during FY 2003 and will continue to do so during FY 2004. The initiative's milestone for FY 2003 was to provide the Commission with a status report on the requirements being revised using the process described in SECY-02-0081. The status report was provided to the Commission on October 1, 2003. The initiative's milestone for FY 2004 is to complete the ongoing activities such that the cost savings resulting from the effort far exceed the cost of the initiative.

Although not specifically included in the milestones for reducing unnecessary regulatory burden, the NRC is also continuing many initiatives that contribute to this performance goal. These include processing various applications and improving processes related to license amendments, power uprates, license renewal, electronic information exchange (EIE), improved requirements in technical specifications for specific plants, and an improved reactor inspection and oversight process.

FUNDING FOR ACHIEVING NRC'S STRATEGIC AND PERFORMANCE GOALS

The Nuclear Reactor Safety budget, totaling $275 million in FY 2003, was spent primarily on six key programs. Each program provides a specific and linked role to ensure safety at nuclear power plants. For example, the licensing program sets the standards and procedures for operating nuclear power plants. The inspection and performance assessment program inspects the plants and collects information to ensure that licensing obligations are being met and that each plant's performance is within the required safety range.



PROGRAM EVALUATION

The Strategic Plan contained no scheduled program evaluations for Nuclear Reactor Safety in FY 2003. However, the NRC continued to integrate improvements into its regulatory process which resulted from the ROP evaluation conducted in FY 2001.

Since FY 2001, the NRC continued to implement the ROP and enhance its specific program areas utilizing functional area self-assessments, stakeholder workshops, and internal task groups. The assessment of the ROP can be located on NRC's Web site in the Electronic Reading Room (publication number SECY-03-002). A key part of this effort is the NRC's annual self-assessment to identify lessons learned and areas for improvement. The NRC completed the calendar year 2002 assessment in April 2003.

Overall, the self-assessment indicated that the ROP has been successful in supporting the NRC's performance goals of maintaining safety; enhancing public confidence; making activities more effective, efficient, and realistic; and reducing unnecessary regulatory burden. The ROP was also effective in calendar year 2002 in meeting the agency's program goals of being objective, risk-informed, understandable, and predictable.

The NRC continued to improve various aspects of the ROP as a result of feedback and lessons learned. Although the responses to the internal and external surveys were generally favorable, some stakeholders believed that the ROP was inadequate because it did not identify the reactor vessel head degradation at Davis-Besse, and the NRC process to determine the significance of inspection findings has not been entirely effective. These and other stakeholder insights and views have been evaluated for improvements to the ROP.

During FY 2003, the NRC performed a program evaluation of the Reactor Inspection and Performance Assessment program as part of the OMB's Program Assessment Rating Tool (PART) endeavor. The review received a rating of "effective" from OMB which is the highest category on the rating criteria. The review also found that the program is strong in setting goals and measuring its performance against those goals, but the program lacks regularly scheduled independent evaluations. OMB's Program Summary will not be available until February 2004, when NRC submits its budget request to Congress.

NUCLEAR MATERIALS SAFETY

Strategic Goal: Prevent radiation-related deaths and illnesses, promote the common defense and security, and protect the environment in the use of source, byproduct, and special nuclear materials.

Overview

Nuclear Materials Safety encompasses NRC-regulated aspects of nuclear fuel cycle facilities and nuclear materials activities. The NRC and 33 Agreement States regulate more than 20,000 specific and 150,000 general licensees.

This diverse regulated community includes uranium extraction, conversion, and enrichment, as well as nuclear fuel fabrication facilities. It also includes large and small users of nuclear material for industrial, medical, or academic purposes. Specifically, these large and small users include radiographers, hospitals, private physicians, nuclear gauge users, large and small universities, and others.

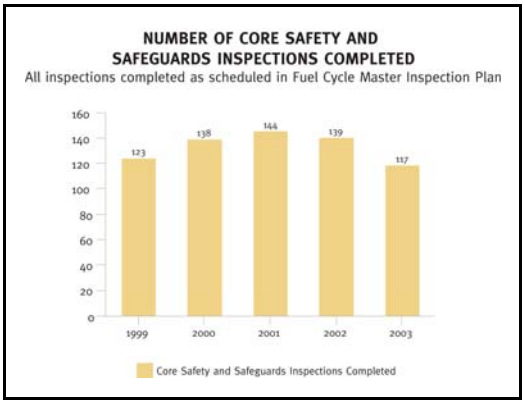
Nuclear Material Safety includes all regulatory activities carried out by the NRC and the Agreement States to ensure that nuclear materials and facilities are used in a manner that protects the health and safety of the public and the environment, while also protecting against radiological sabotage and theft or diversion of special nuclear materials.

Ensuring the Safe Use of Nuclear Materials
Nuclear Materials Safety includes several distinct program areas.

Fuel Facilities Licensing and Inspection

The NRC licenses and inspects all commercial nuclear fuel facilities involved in processing and fabricating uranium ore into reactor fuel. These licensing and inspection activities are a key aspect of the agency's nuclear fuel cycle safety and safeguards program. These activities include conducting detailed health, safety, safeguards, and environmental licensing reviews and inspections of licensees' programs, procedures, operations, and facilities to ensure safe and secure operations.

Each of the 42 fuel cycle facilities holds a license or certificate that specifies the materials the licensee may possess, and sets restrictions on how the materials may be used. In addition to authorizing the possession and use of source, special nuclear, and byproduct material, each license or certificate establishes additional licensee responsibilities (such as worker protection, environmental controls, and financial assurance).



The NRC issues these fuel cycle facility licenses or certificates, in accordance with requirements promulgated in the Code of Federal Regulations. Applications for licenses or certificates demonstrate how the facilities will be operated to ensure adequate safety and safeguards. In FY 2003, the NRC completed 141 fuel

cycle licensing actions and conducted 117 inspections of fuel cycle licensees. The number of inspections decreased in FY 2003 due to closure of the Portsmouth Gaseous Diffusion Plant and Westinghouse Electric Company-Hematite Fuel Fabrication Facility.

Two on-going licensing actions are potentially significant. NRC is performing a licensing review of the DCS application to construct a MOX fuel fabrication facility on DOE's Savannah River site near Aiken, South Carolina. The proposed use of MOX fuel is part of a national nonproliferation effort to dispose of surplus weapons-grade plutonium by irradiating it in existing commercial light water reactors. The NRC completed and issued a draft environmental impact statement (EIS) in February 2003. Then, in March 2003, the NRC held public meetings in the vicinity of the site to facilitate public comments on the draft EIS. In April 2003, the NRC issued a revised draft safety evaluation report that documents the NRC's review of DCS's revised construction authorization request.

When the United States Enrichment Corporation (USEC) submitted a license application and environmental report for a commercial gas centrifuge lead cascade facility, the NRC reviewed the application and issued requests for additional information in July 2003.

In FY 2003, the NRC also established an interagency agreement with DOE to assist the Russian independent nuclear safety regulator, Gosatomnadzor (GAN), in supporting the plutonium disposition program in Russia. The NRC has already held meetings with GAN to discuss such regulatory issues as criticality safety.

In FY 2003, the NRC also began conducting integrated safety analysis (ISA) summary reviews for individual amendment requests. These ISA reviews are part of the NRC's implementation of the revised regulation established in 10 CFR Part 70, which increases the use of risk information for fuel cycle facilities. Further, the NRC also began reviewing the first of the sitewide ISA's, which was submitted by BWX Technologies, Inc., in December 2002.

The NRC has also implemented a revised Fuel Cycle Facility Operational Safety and Safeguards Inspection Program. This revised program incorporates the operating experience gained during the transition from a compliance-based program to one that is more risk-informed program and better defines the program management oversight process.

Materials Users Licensing and Inspection

The NRC currently regulates and inspects approximately 4,500 specific licensees for the use of nuclear byproduct and other radioactive material. These uses include medical diagnosis and therapy, medical and biological research, academic training and research, industrial gauging and nondestructive testing, production of radiopharmaceuticals, and fabrication of commercial products such as smoke detectors and other radioactive sealed sources and devices. In FY 2003, the NRC completed 4,236 materials licensing actions.

Detailed health and safety reviews and inspections of licensee procedures and facilities provide reasonable assurance of safe operations and the development of safe products. The NRC routinely inspects materials licensees to ensure that they are using nuclear material in a safe manner, maintaining accountability of materials, and protecting public health and safety. Through these inspections, the NRC identifies issues resulting from incidents and events and analyzes operational experience from NRC and Agreement State licensees. The NRC completed 1,427 nuclear materials program inspections in FY 2003.

During FY 2003, the NRC also worked with DOE to facilitate the recovery of nearly half of the 5,000 unwanted or orphaned greater-than-class-C radioactive sources identified for NRC and Agreement State licensees. The NRC will continue to collaborate with DOE to complete this effort in FY 2004.

In support of congressional direction to DOE requesting a detailed estimate of the cost of bringing 10 science laboratories into compliance with NRC standards for nuclear safety, the NRC conducted evaluations of four DOE Office of Science laboratories in FY 2003. Specifically, these laboratories were Argonne National Laboratory East, Oak Ridge National Laboratory (including the High-Flux Isotope Reactor), the Princeton Plasma Physics Laboratory, and the Thomas Jefferson National Accelerator Facility. These evaluations, along with others planned for FY 2004, provide the information that DOE will need to respond to Congress with an accurate estimate of what it would cost to comply with NRC regulations, in the event Congress mandates that the laboratories be externally regulated.

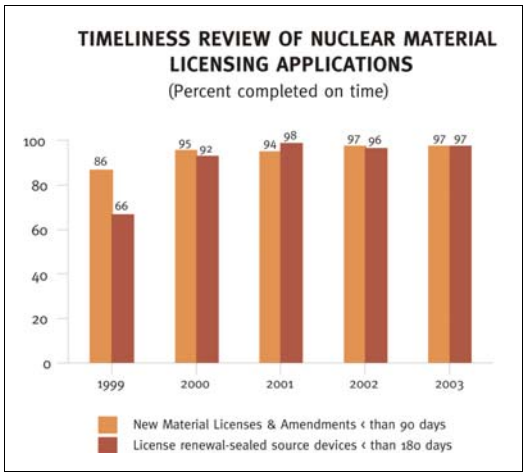
Another significant NRC accomplishment in FY 2003 was the progress made in implementing the revised 10 CFR Part 35, which contains NRC's regulations for the medical use of byproduct materials. Specifically, the NRC established a Medical Projects Working Group to coordinate and resolve Part 35 licensing, inspection, enforcement, and policy issues through interaction with the regional staff on a regular basis. This Working Group has streamlined the decisionmaking process. The Group also ensures that stakeholders have the necessary tools to implement Part 35, by placing pertinent information on the NRC's Web site and ensuring that it remains up to date. The Group has also consulted with the Advisory Committee on the Medical Use of Isotopes on difficult medical issues related to Part 35 revisions.

Another significant accomplishment in FY 2003 related to the NRC's control of the disposition of solid material. In February 2003, the NRC published a Federal Register Notice requesting written comments on the proposed rulemaking and environmental analyses. In response, the agency received several thousand docketed letters from various stakeholders. To solicit additional input, the NRC held a public workshop in May 2003. Through that workshop, the NRC provided background information on the rulemaking process and the various alternatives under consideration for controlling the disposition of solid material. Stakeholder representatives also presented their views and input on the alternatives; a summary of these are available on the NRC's Web site.

Over the past year, the NRC has made significant progress toward increasing the use of risk insights and information where feasible and beneficial. For example, the NRC implemented a risk-informed approach in reviewing the ISA summaries (discussed previously) and revising Manual Chapter 2800, "Materials Inspection Program" The NRC is also developing guidance documents and risk guidelines to facilitate consistent and effective application of the risk-informed approach.

During FY 2003, the NRC also continued to monitor materials safety issues through the agency's event evaluation and incident response activities. In particular, the NRC met regularly to evaluate the safety significance of the events reported by agency licensees and Agreement

States. The timeliness of NRC in reviewing nuclear material license renewals and sealed source and device designs has improved from 1999 through 2003.



State and Tribal Programs

The NRC provides for cooperation, coordination, oversight, technical assistance, and liaison with States, local governments, Indian tribes, and interstate organizations. The NRC also shares its regulatory responsibilities with 33 Agreement States, with Wisconsin becoming an Agreement State in August 2003. The NRC conducts periodic Integrated Materials Performance Evaluation Program (IMPEP) reviews of Agreement State programs to ensure public health and safety, as well as the compatibility of Agreement State programs with NRC programs. IMPEP uses a common evaluation process that applies to both Agreement State and NRC regional materials programs to attain a uniform materials safety policy throughout the Nation.

Materials Research

The Research Program includes developing a technical basis to risk-inform the regulatory requirements for materials licenses by developing risk assessment tools and safety goals/guidelines for materials applications. In addition, the NRC is cooperating with other Federal agencies to assess the significance of radioactive material released to municipal sewage systems and updating codes used for assessing radiation doses from materials activities.

ANNUAL GOALS AND MEASURES[17]

Strategic Goal: Prevent radiation-related deaths and illnesses, promote the common defense and security, and protect the environment in the use of source, byproduct, and special nuclear materials.

Strategic Goal Results

The NRC has established five measures to determine whether the agency has met its strategic goal in the Nuclear Materials Safety Arena. These are top-level measures that define the NRC's success in overseeing nuclear materials licensees. The goal of the NRC's regulatory efforts is to prevent the occurrence of any of the events described in the measures below.

Measure	1998	1999	2000	2001	2002	2003
No deaths resulting from acute radiation exposures from civilian uses of source, byproduct, or special nuclear materials, or deaths from other hazardous materials used or produced from licensed material.[18]	---------- Goal was achieved----------					
No more than six events per year resulting in significant radiation or hazardous materials exposures[19] from the loss or use of source, byproduct, and special nuclear materials.	----------Goal was achieved----------					
No events resulting in releases of radioactive material resulting from civilian uses of source, byproduct, or special nuclear materials that cause an adverse impact on the environment.[20]	----------Goal was achieved----------					
No losses, thefts, or diversion of formula quantities of strategic special nuclear material, radiological sabotages, or unauthorized enrichment of special nuclear material regulated by the NRC.[21]	----------Goal was achieved----------					
No unauthorized disclosure or compromise of classified information causing damage to national security.[22]	----------Goal was achieved----------					

The NRC has met all of the strategic goal measure targets.

Performance Goals

In addition to our strategic goals, the NRC has four performance goals and measures for the Nuclear Materials Safety Arena:

1) Maintain safety, protection of the environment, and the common defense and security.
2) Increase public confidence.
3) Make NRC activities and decisions more effective, efficient, and realistic.
4) Reduce unnecessary regulatory burden on stakeholders.

Performance Goal Results

Performance Goal: Maintain safety, protection of the environment, and the common defense and security

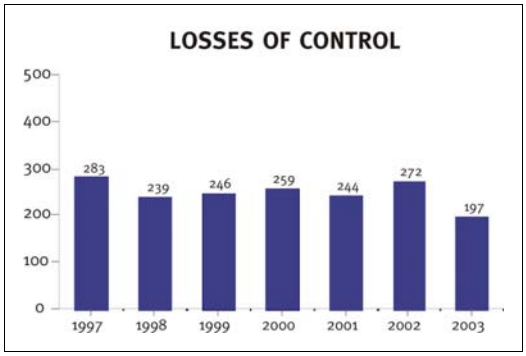
Measure	1998	1999	2000	2001	2002	2003
No more than 300 losses[23] of control of licensed material per year.[24]	---------- Goal was achieved ----------					
No occurrences of accidental criticality.[25]	----------Goal was achieved----------					
No more than 30 events per year[26] resulting in radiation overexposures[27] from radioactive material that exceed applicable regulatory limits.	----------Goal was achieved ----------					
No more than 45 medical events per year.[28]	----------Goal was achieved ----------					
No more than 5 releases per year[29] to the environment of radioactive material from operating facilities that exceed the regulatory limits.[30]	----------Goal was achieved----------					
No more than 5 substantiated cases per year of attempted malevolent use[31] of source, byproduct, or special nuclear material.	---------- -Goal was achieved----------					
No breakdowns of physical protection or material control and accounting systems resulting in a vulnerability to radiological sabotage, theft, diversion, or unauthorized enrichment of special nuclear material.[32]	---------- Goal was achieved----------					
No non-radiological events that occur during NRC-regulated operations that cause impacts on the environment that cannot be mitigated within applicable regulatory limits, using reasonably available methods.[33]	---------- Goal was achieved----------					

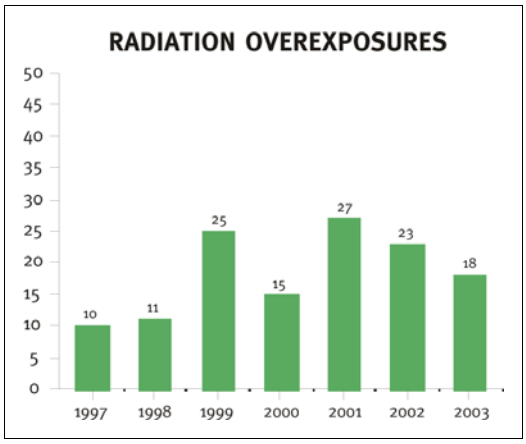
Results: The NRC has met all of the performance goal measure targets.

Losses of Control: For the first measure, the industry experienced 197 losses of control of licensed material in FY 2003. These were within the target of 300 losses. This measure tracks reportable events of materials entering the public domain in an uncontrolled manner. Many of the events counted toward this measure do not, by themselves, present a public health and safety risk. For example, most of the losses of control of licensed material involve shielded materials, which are unlikely to result in overexposures to individuals or releases to the environment. However, the NRC includes these losses because they may indicate weaknesses in licensees' programs.

Accidental Criticality: For the second measure, the industry did not experience any instances of accidental criticality in FY 2003 or in any year since data collection began in FY 1997.

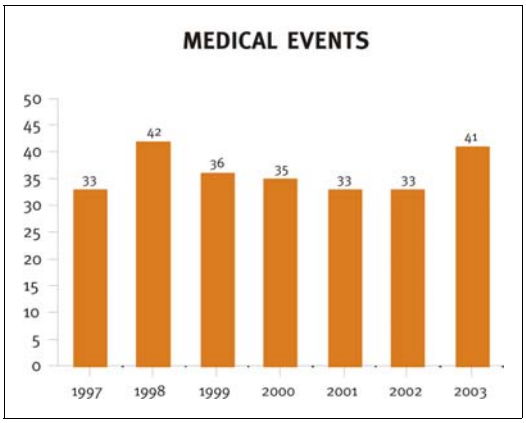
Radiation Overexposures: For the third measure, the industry experienced 18 events in FY 2003 that resulted in radiation overexposures from radioactive material that exceeded applicable regulatory limits, compared to 23 in FY 2002. The NRC lowered its target in FY 2002 from 40 to 30 events. For fuel cycle facilities, this measure extends to other hazardous materials used with, or produced from, licensed material, consistent with 10 CFR Part 70. Reportable chemical exposures are those that exceed license commitments. They also include chemical exposures involving uranium recovery activities under the Uranium Mill Tailings Radiation Control Act.





Medical Events: For the third measure, the industry experienced 41 medical events in FY 2003. Approximately 10 of these events involved intravascular brachytherapy devices. In July 2003, NRC prepared an Information Notice alerting licensees of this issue. Since data collection began under the Government Performance and Results Act (GPRA), the peak year was FY 1998, when 42 events occurred.

This measure pertains to medical events reported under 10 CFR Part 35, "Medical Use of Byproduct Material." The NRC's Medical Use Program includes users of byproduct material in medical diagnosis and therapy.

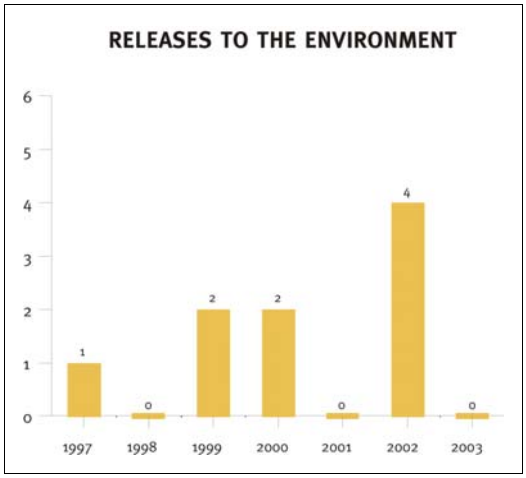


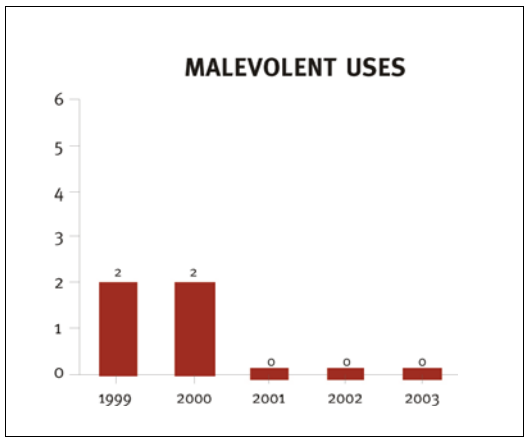
Releases to the Environment: The fifth measure is an indicator of the effectiveness of the NRC's nuclear materials environmental programs The industry did not experience any releases to the environment that exceeded regulatory limits in FY 2003, compared to 4 such events during FY 2002.

Malevolent Uses: During FY 2003, the industry did not experience any instances of attempted malevolent use of source, byproduct, or special nuclear material.

Breakdowns of Protection or Control: For the seventh measure, the industry did not experience any breakdowns of physical protection or material control and accounting systems resulting in a vulnerability to radiological sabotage, theft, diversion, loss of special nuclear material, or unauthorized enrichment of special nuclear material in FY 2003 or any prior years.

Nonradiological Events: For the eighth measure, the industry did not experience any nonradiological events during NRC-regulated operations that had an impact on the environment during FY 2003, or in any year since GPRA-related data collection began in FY 1997. This measure involves only chemical releases from uranium mining or milling facilities regulated by NRC. As such, it is limited to nonradiological environmental impacts from operations, including remediation. Examples of events that might be counted include chemical releases resulting from excursions at in situ leach facilities or releases from mill tailings piles that could contaminate groundwater.





Performance Goal: Increase public confidence.

Measure	1998	1999	2000	2001	2002	2003
Complete milestones related to collecting, analyzing, and trending information for measuring public confidence.	---------- Goal was achieved ----------					
Complete all public outreaches.	---------- Goal was achieved ----------					
Issue Director's Decisions for petitions filed to modify, suspend, or revoke a license under 10 CFR 2.206 within an average of 120 days.	----------Goal was achieved -				NA	NA

Results: In FY 2003, the NRC met the first two of these performance goal measure targets. The third target was not applicable in FY 2002 and FY 2003 because the NRC did not receive any petitions in Nuclear Materials Safety.

Public Confidence: The NRC met the target related to collecting, analyzing, and trending information for measuring public confidence. The NRC has continued to use public meeting feedback forms as a measure to assess public confidence. Review of the feedback forms shows that the NRC continues to improve its interactions with the public, which include providing supporting documents, categorizing meetings to define the level of participation provided, and following up with answers to questions that cannot be addressed during the meeting. The NRC issued the latest analysis of public meeting feedback forms in August 2003, representing 112 meetings. The majority of respondents felt that the meetings achieved their intended purposes and helped the participants better understand the topics of discussion. Respondents also felt that they were given sufficient opportunities to ask questions or express their views. Comments on the meetings were constructive and assisted the NRC in developing future meeting plans.

Public Outreach: Public outreach meetings give the public opportunities for meaningful participation in NRC activities and enable the NRC to provide the public information on those activities. FY 2003 examples of public outreach efforts included the Uranium Recovery Workshop, public meetings on the MOX draft EIS and revised draft safety evaluation report, a series of public meetings on the proposed Louisiana Energy Services (LES) gas centrifuge facility, the annual meeting of the Organization of Agreement States (OAS), and the annual meeting of the Conference of Radiation Control Program Directors (CRCPD). Other examples include public meetings associated with training and experience requirements for recognition of specialty board certifications in 10 CFR Part 35, "Medical Use of Byproduct Material," and the expanded information on Part 35 questions and answers, which is available on the agency's public Web site. In addition, the NRC conducted a stakeholder workshop on control of solid materials; held a public meeting with the radiopharmaceutical industry on extremity dose monitoring; participated in the 2003 Federal Facilities Management Symposium sponsored by the Association of State and Territorial Solid Waste Management Officials; and held a series of meetings and workshops with Agreement States and large panoramic irradiator licensees to develop risk informed, efficient, and effective compensatory measures to provide additional security for large irradiator sources.

Directors Decisions: There were no petitions filed under 10 CFR 2.206 in Nuclear Materials Safety in FY 2002 and FY 2003.

Performance Goal: Make NRC activities and decisions more effective, efficient, and realistic.

Measure	1998	1999	2000	2001	2002	2003
Complete specific materials milestones in the Risk-Informed Regulation Implementation Plan.	----------Goal was achieved ----------					
Complete at least two key process improvements per year in selected program and support areas that increase effectiveness, efficiency, and realism.	---------- Goal was achieved ----------					

Results: The NRC has met all of the performance goal measure targets.

Risk-Informed Regulation: The first measure focuses on progress in developing a coordinated approach to implementing risk-informed decisions throughout the agency's regulatory processes. The NRC completed the milestones for developing a risk-informed regulation implementation plan (RIRIP) on schedule. These milestones included sending the RIRIP updates to the Commission (in March 2003 and September 2003) and updating the NRC's plans to risk-inform materials regulatory processes to reflect successes and lessons learned in implementation.

Process Improvements: The second measure concerns action to improve the NRC's internal processes. This year, the NRC conducted two major process improvement reviews. The first review targeted rulemaking as one of the processes that could be improved. The NRC established a task force to review the agency's rulemaking procedures, identify areas that might be amenable to improvement, and make recommendations to enhance the process. The task force provided its report to the agency's Rulemaking Coordinating Committee in November 2002, presenting 36 recommendations covering such areas as process improvement, enhanced public participation, better tracking of rulemakings, better training material, prioritization and budgeting, guidance and support, work assignments, and internal communications. The agency has since evaluated these recommendations and developed an implementation plan. Early implementation successes include definition of roles and responsibilities, improved working group function, and development of additional mechanisms by which the public can submit comments on rulemakings.

In the second review for FY 2003, the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) conducted a Business Process Improvement (BPI) assessment of its contract financial management support activities. This cross organizational assessment identified several immediate improvements to streamline communications, improve the quality of contract statements of work, and reduce concurrence time. In addition, the BPI team identified potential future information technology solutions that are expected to improve the agency's timeliness and accuracy in contracting products and performance measurement capabilities. A BPI review of the NMSS licensing process began in FY 2003 and will continue through FY 2004.

Performance Goal: Reduce unnecessary burden on stakeholders.

Measure	1998	1999	2000	2001	2002	2003
Complete specific milestones to reduce unnecessary regulatory burden.	---------- Goal was achieved ----------					
Reduce the paperwork and recordkeeping burden that the NRC imposes on its licensees by at least 25 percent over a period of 5 years.	---------- Goal was achieved ----------					

Results: The NRC has met all of the performance goal measure targets.

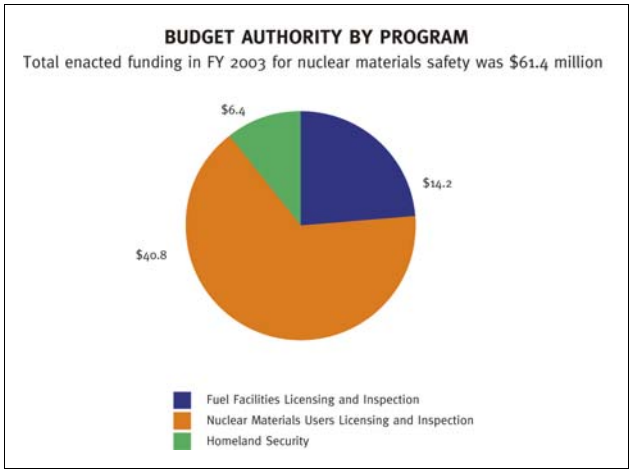
Regulatory Burden: For the first measure, the NRC met the target in FY 2003 by completing a direct final rule with clarifying amendments for 10 CFR Part 35, "Medical Use of Byproduct Material."

The NRC also issued a final rule to change the 10 CFR Part 72 requirements for the siting and design of dry cask independent spent fuel storage installations and monitored retrievable storage installations. The final 10 CFR Part 72 rule (1) improves the effectiveness and efficiency of the regulatory process by eliminating the need for applicants to request exemptions, and the need for the NRC to review those exemption requests; (2) reduces unnecessary regulatory burden for applicants and licensees by potentially reducing the required design earthquake level to account for the lower risk associated with ISFSI facilities; (3) would not result in significant additional overall implementation or operation costs; and (4) supports the implementation of the NRC's risk-informed approach to regulation. A final rule was also issued that changes the 10 CFR Part 74 requirements for material control and accounting, making them more performance-based and reducing the associated reporting requirements.

Paperwork and Recordkeeping Reduction: The NRC met the target for the second measure by reducing the paperwork and recordkeeping burden approximately 17 percent from FY 2000 to FY 2003, based on data through August 2003, and achieved an even greater reduction than the goal of 15 percent for that period. The revision to 10 CFR Part 35 provided the greatest reduction in burden. These estimates are based on figures that the NRC provided to OMB in its final rule burden estimates and renewal of information collection requirements.

FUNDING FOR ACHIEVING NRC'S STRATEGIC AND PERFORMANCE GOALS

The Nuclear Materials Safety budget totaled $61.4 million in FY 2003. This budget was allocated to three key program areas, including fuel facilities licensing and inspection, nuclear materials users licensing and inspection, and homeland security.



PROGRAM EVALUATION

The NRC's Strategic Plan contained no program evaluations for the Nuclear Materials Safety Arena in FY 2003. However, the NRC continued to evaluate the program in this area and integrate improvements to its National Materials Program, Integrated Materials Performance Evaluation Program Reviews (IMPEP), and the Rulemaking Process. In addition, the NRC evaluated its Fuel Cycle Licensing and Inspection Program using OMB's PART.

The National Materials Program

The National Materials Program is an effort to create a partnership between the NRC and the Agreement States, for regulating nuclear materials licensees and ensuring the protection of the health and safety of the public and the environment. The primary strategies for achieving that partnership include the promotion of consensus regulatory priorities, consistent information exchanges, a harmonized regulatory approach, and optimized resource strategies. In November 2002, the NRC, in coordination with the OAS and the CRCPD, launched five pilot projects to provide additional information to help understand the feasibility and viability of the Alliance option recommended by the National Materials Program Working Group. Each organization (NRC, OAS, CRCPD) has agreed to take the lead for one or more of the pilot projects.

To date, charters for the pilots have been developed, and the NRC and the OAS and CRCPD Boards have identified staff to support working groups to implement the pilots. The pilot project working groups are expected to complete their projects in mid FY 2004.

The pilot projects were discussed at the May 2003 CRCPD meeting and at the October 2003 OAS meeting. A final report integrating the results of the pilot projects and the information obtained from other activities related to the National Materials Program, which is scheduled to be completed in early FY 2005, will be used as input to help further define the direction for the National Materials Program.

Integrated Materials Performance Evaluation Program

The Integrated Materials Performance Evaluation Program is an ongoing oversight program designed to evaluate the quality, adequacy, and consistency of NRC and Agreement State materials programs using a set of common performance indicators. In FY 2003, the NRC completed a review of the Region III materials program. That review was conducted by a multi-disciplinary team, which included the participation of NRC and Agreement State personnel. The team found the Region III operations to be fully satisfactory with respect to the technical quality of licensing and inspections, the status of the inspection program, responses to incidents and allegations, and technical staffing and training. The Management Review Board (MRB) supported the team's proposed findings and determined that the program was operating in a manner that is adequate to protect public health and safety.

Fuel Cycle Licensing and Inspection Program

In FY 2003, the NRC evaluated its Fuel Cycle Licensing and Inspection Program using the OMB's PART. The review received a rating of "effective" from OMB which is the highest category on the rating criteria. The review also found that the Fuel Cycle Licensing and Inspection Program is strong in setting goals and measuring its performance against those goals,

but the program lacks regularly scheduled independent evaluations. OMB's Program Summary will not be available until February 2004, when NRC submits its budget request to Congress.

NUCLEAR WASTE SAFETY

Strategic Goal: Prevent significant adverse impacts from radioactive waste to the current and future health and safety of the public and the environment and promote the common defense and security.

Overview

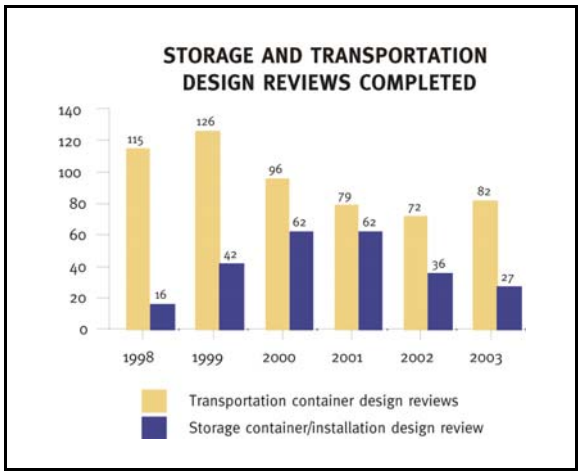
Nuclear Waste Safety encompasses regulatory activities associated with the decommissioning of nuclear reactors and other facilities, storage of spent nuclear fuel, transportation of radioactive materials, and disposal of radioactive wastes. Within this area, the efforts of the NRC also include waste safety research.

In addition, the NRC's activities under the Nuclear Waste Policy Act (NWPA) focus on the high-level waste (HLW) geologic repository site at Yucca Mountain, Nevada. The NRC conducts its low-level waste (LLW) activities in accordance with the Low-Level Radioactive Waste Policy Act.

Ensuring the Safe Transportation and Disposal of Nuclear Waste
Nuclear Waste Safety oversees several distinct programs areas.

Spent Fuel Storage and Transportation Licensing and Inspection

Millions of shipments of radioactive materials are safely and securely transported each year within the United States. Several Federal agencies share responsibility for regulating the safety and security of these shipments. The NRC's transportation-related activities are closely coordinated with those of the U.S. Department of Transportation (DOT) and, as appropriate, with DOE and the Federal Emergency Management Agency (FEMA). To carry out its regulatory responsibilities for spent fuel storage and radioactive material transportation, the NRC certifies both transport container package designs and spent fuel storage cask designs.



The NRC also licenses and inspects interim storage of spent fuel at both reactor sites and away-from-reactor sites. This helps to ensure that licensees provide safe interim storage of spent reactor fuel and transport nuclear materials in packages that provide a high degree of safety.

During FY 2003, the NRC completed rulemakings associated with Certificate of Compliance amendments for three different storage cask designs. These rulemakings and amendments address the storage needs of specific utilities intending to use the modified storage cask designs.

During FY 2003, the NRC made significant progress on a rulemaking to revise 10 CFR Part 71, which establishes requirements for shipping nuclear materials. Most of the effort related to review and resolution of approximately 200 comments, and development of the final rule. These efforts will result in publication of a final rule in early FY 2004. The changes make U.S. transportation and safety requirements compatible with the most recent standards issued by the IAEA and include other changes initiated by the NRC. The NRC coordinated the proposed rule changes with the Agreement States and with DOT, which recently approved similar changes to its transportation regulations.

Through September 2003, the Spent Fuel Storage and Transportation Licensing and Inspection Program completed 82 transport container design reviews and 27 storage container and installation design reviews.

As illustrated, the number of storage container design reviews completed in FY 2003 declined from FY 2002. This decline is attributable to a reduction in the number of applications received by the NRC requesting approval of transport and storage containers. During FY 2003, the NRC also completed an evaluation of a hypothetical accident to assess the performance of a spent nuclear fuel transportation cask under severe fire conditions, similar to those experienced in the tunnel fire accident in Baltimore, Maryland, on July 18, 2001. That accident involved a train carrying hazardous materials which derailed, thereby puncturing a rail car containing 108,263 liters (28,600 gallons) of tripropylene, which fueled the fire. The NRC concluded that public health and safety would have been protected had the tested spent fuel cask been involved in a fire similar to the Baltimore tunnel fire.

In February 2003, an NRC team inspected spent fuel dry storage and transportation cask fabrication at Kobe Steel, Ltd., in Takasago, Japan, and at Hitachi Zosen Diesel and Engineering Company, Ltd., in Ariake, Japan. The inspection results verified that cask fabrication was being performed in accordance with the Certificate of Compliance, the NRC approved quality assurance program and NRC regulations, and that the casks should be capable of performing their intended safety functions.

The NRC continued significant work on the licensing process for the application that Private Fuel Storage, LLC (PFS) submitted 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, a Federally recognized Indian tribe. The Atomic Safety and Licensing Board Panel (ASLBP) issued a partial initial decision on air crash probability in March 2003, which had previously been adjudicated before the Panel. The Panel ruled that a military aircraft crash was a credible accident and that no license could be issued until the applicant had demonstrated that the consequences of such an accident would not pose a significant threat to the facility. The ASLBP also indicated that the applicant could file a consequence analysis, which would then be the subject of adjudication. In late May 2003, the Commission issued an order directing the ASLBP to make every effort to complete the hearings on air crash probability no later than December 2003. The ASLBP issued additional partial initial decisions on geotechnical and financial issues in May 2003, resolving these contentions in favor of the applicant, PFS. The ASLBP decision on environmental aspects of the rail line is outstanding. After the ASLBP completes its findings, a licensing decision will follow, although the schedule will depend on whether the ASLBP decision is appealed to the Commission.

High-Level Waste Regulation

The NRC conducts its HLW program in accordance with the NWPA, as amended, and the Energy Policy Act of 1992. This legislation specifies an integrated approach and a long-range plan for HLW storage, transportation, and disposal. It also prescribes the respective roles of the NRC, DOE, and the Environmental Protection Agency (EPA), as they relate to the HLW program. Specifically, DOE has the responsibility for the actual disposal of the Nation's HLW, commencing with site characterization and repository design, and continuing through development, operation, and ultimate closure of a deep geologic repository. The EPA, in turn, has been charged with developing environmental standards specific to the Yucca Mountain repository. The NRC, in turn, will use these standards, which must be consistent with the recommendations of the National Academy of Sciences, to evaluate the safety of the potential geologic repository developed by DOE. The NRC also has extensive pre-licensing responsibilities and will be the regulatory authority to issue a license, if appropriate, after determining whether the potential DOE license application for a geologic repository at Yucca Mountain complies with the applicable regulatory standards.

Over the past few years, the NRC has continued to build and refine the regulatory framework for evaluating the license application for the proposed Yucca Mountain repository. In FY 2003, the NRC published a final rule that addresses "unlikely events" for the proposed Yucca Mountain repository that can be excluded from certain required assessments because of their low probability of occurrence.

Also in FY 2003, the NRC issued the final YMRP, an important companion to the requirements in 10 CFR Part 63. The YMRP describes the information that the NRC staff is to review in the license application, as well as the criteria for determining whether issues have been satisfactorily addressed. The DOE expects to file its license application with the NRC in late 2004.

The NRC also continued exchanges with DOE concerning the technical issues that are most important to licensing the potential HLW repository. These exchanges resolve subissues or lead to agreements for DOE to submit additional information to address the NRC's concerns. In addition, the NRC held numerous meetings with stakeholders to discuss health and safety issues associated with a potential HLW repository at Yucca Mountain.

Decommissioning

Decommissioning involves removing radioactive contamination in buildings, equipment, groundwater, and soil to such levels that permit release of the property with no restrictions on its future use, or permit release of the property with conditions that restrict its future use. This program includes power and non-power reactors, as well as materials and fuel facilities.

The NRC conducts decommissioning licensing and inspection activities for commercial nuclear facilities that are currently in the decommissioning process. Licensing actions require NRC review and approval before they can be implemented by licensees. By conducting inspections, the NRC evaluates the licensee's ability to safely store or dismantle and decontaminate the facility, while still maintaining the licensed configuration of the facility and managing the use of decommissioning funds as described in the regulations.

The decommissioning program focuses on resolving key issues (including dose assessments for remediated sites), evaluating institutional controls for restricted use sites, reviewing

decommissioning plans, conducting environmental reviews, and preparing environmental impact statements, as appropriate.

The NRC maintains a Site Decommissioning Management Plan (SDMP) list. The SDMP list identifies sites that have technical, financial, and/or other challenges that must be addressed before decommissioning can be completed. During FY 2003, the NRC approved the removal of one site from the SDMP. The NRC released the General Services Administration (GSA) Watertown facility in Watertown, Massachusetts, for unrestricted use after determining that residual radioactivity at the site met the agency's requirements.

In FY 2003, the NRC and the EPA signed a Memorandum of Understanding (MOU) that outlines a process for consultation on decommissioning and decontamination of certain contaminated sites. That MOU is expected to reduce dual regulation for some NRC licensees.

The NRC also completed a 3-year project to update and consolidate the agency's materials decommissioning guidance, while making it more risk-informed and performance-based. This effort should enhance the decommissioning process by improving the quality of licensee submittals and increasing the efficiency of NRC reviews.

Environmental Protection and Low-Level Waste Management

In FY 2003, the NRC completed two draft Environmental Impact Statements, one for the proposed MOX fuel fabrication facility at the DOE Savannah River site in South Carolina, and another for the proposed Idaho Spent Fuel Storage Facility, in Butte, Idaho.

The NRC also published the final version of "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs" in FY 2003. This guidance document provides general procedures for the environmental review of licensing actions within Materials and Waste Safety.

In the low-level radioactive waste program, the NRC coordinated extensively with the EPA on the development of EPA's low activity mixed waste rule. That rule would permit certain low-activity radioactive wastes to be disposed in EPA-regulated hazardous waste facilities. The EPA published an Advance Notice of Proposed Rulemaking in November 2003 . The NRC also responded to States' requests for assistance in the low-level waste area.

Waste Safety Research

The Waste Safety Research Program supports a number of the NRC's nuclear waste activities. Research studies involve the decommissioning of facilities, the disposal and storage of radioactive waste, the cleanup of contaminated sites, the development of tools to assess the movement of radionuclides in the environment, and the assessment of dose to the public as a result of uranium recovery. In FY 2003, the NRC completed a significant revision, including more realistic analysis in response to peer review comments, to a pilot probabilistic risk assessment (PRA) of a dry cask storage system. A presentation to the Advisory Committee on Nuclear Waste is planned for FY 2004 before issuing the draft report for public comment. The draft study determined that the risk to the public from a stainless steel welded canister and concrete overpack is very low. The NRC expects to issue the final results of the study in FY 2004. The NRC will then use the final pilot study and follow-on PRA activities to develop generic risk insights for spent fuel dry storage casks, develop applicable risk metrics, and help implement the agency's performance goals, as well as the Commission's policy on the risk-informed decisionmaking process.

Package Performance Study

The NRC is studying the performance of spent nuclear fuel transportation packages under accident conditions, including high-speed impact and fire. In connection with that study, the NRC published NUREG-1768, United States Nuclear Regulatory Commission Package Performance Study Test Protocols," for public comment in February 2003. This report contains the NRC draft proposal for the content and conduct of the test program, as well as the analyses to support the test program. In the report, the NRC recommended full-scale testing of a rail cask and a truck cask under extreme accident conditions for fire and impact. The NRC subsequently conducted four public meetings during the public comment period to discuss the proposed test protocols with stakeholders. The public comment period closed at the end of May 2003, and the NRC received more than 235 related comment letters. The NRC is currently reviewing the comments and developing a resolution of comments report. The research results would be available before the initiation of spent nuclear fuel shipments to a potential Yucca Mountain repository in FY 2010.

ANNUAL GOALS AND MEASURES[34]

Strategic Goal: Prevent significant adverse impacts from radioactive waste to the current and future health and safety of the public and the environment and promote the common defense and security.

Strategic Goal Results

The NRC has established four measures to determine whether the agency has met its strategic goal in Nuclear Waste Safety. These are top-level measures that define the NRC's success in overseeing radioactive waste. The goal of the NRC's regulatory efforts is to prevent the occurrence of any of the events described in the measures below.

Measure	1998	1999	2000	2001	2002	2003
No deaths resulting from acute radiation exposure from radioactive waste.[35]	---------- Goal was achieved----------					
No events resulting in significant radiation exposure[36] from radioactive waste.	---------- Goal was achieved----------					
No release of radioactive waste causing an adverse impact on the environment.[37]	---------- Goal was achieved----------					
No losses, thefts, diversion, or radiological sabotage[38] of special nuclear material or radioactive waste.	---------- Goal was achieved----------					

The NRC has met all of the strategic goal measure targets.

Performance Goals

In addition to our strategic goals, the NRC has a set of four performance goals and associated performance measures for Nuclear Waste Safety.

1) Maintain safety, protection of the environment, and the common defense and security.
2) Increase public confidence.
3) Make NRC activities and decisions more effective, efficient, and realistic.
4) Reduce unnecessary regulatory burden on stakeholders.

Performance Goal Results

Performance Goal: Maintain safety, protection of the environment, and the common defense and security.

Measure	1998	1999	2000	2001	2002	2003
No events resulting in radiation overexposures[39] from radioactive waste that exceed applicable regulatory limits.[40]	---------- Goal was achieved----------					
No breakdowns of physical protection resulting in a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials or radioactive waste.[41] [42]	---------- Goal was achieved----------					
No radiological releases[43] to the environment from operational activities that exceed the regulatory limits.[44]	---------- Goal was achieved----------					
No instances where radioactive waste and materials under the NRC's regulatory jurisdiction cannot be handled, transported, stored, or disposed of safely now or in the future.[45] [46]	---------- Goal was achieved----------					

Results: The NRC has met all of the performance goal measure targets.

Radiation Overexposures: For the first measure, no radiation overexposures from radioactive waste exceeded regulatory limits in FY 2003 or in any year since GPRA-related data collection began in FY 1997. This measure focuses on events that could result in overexposures of the public or workers.

Breakdowns of Physical Protection: For the second measure, no breakdowns of physical protection resulted in a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials or radioactive waste in FY 2003, or in any year since GPRA-related data collection began in FY 1997. Events collected under this performance measure are those that may indicate a vulnerability to radiological sabotage, theft, diversion, or loss of special nuclear materials or radioactive waste, thereby compromising public health and safety.

Radiological Releases: For the third measure, no radiological releases to the environment from operational activities exceeded the regulatory limits in FY 2003 or in any year since GPRA-related data collection began in FY 1997.

Handling of Radioactive Waste and Materials: For the fourth measure, there were no instances in which the NRC failed to provide an adequate regulatory framework for the safe handling, transportation, storage, or disposal of radioactive waste and materials under the agency's regulatory jurisdiction in FY 2003 or in any year since GPRA-related data collection began in FY 1997.

Performance Goal: Increase public confidence.

Measure	1998	1999	2000	2001	2002	2003
Complete milestones related to collecting, analyzing, and trending information for measuring public confidence.	---------- Goal was achieved----------					
Complete all public outreaches.	---------- Goal was achieved----------					
Issue Director's Decisions for petitions filed to modify, suspend, or revoke a license under 10 CFR 2.206[47] within an average of 120 days.[48]	---------- Goal was achieved----------					

Results: The NRC has met all of the performance goal measure targets.

Public Confidence: The NRC met the target related to collecting, analyzing, and trending information for measuring public confidence. The NRC has continued to use public meeting feedback forms as a measure to assess public confidence. After reviewing the feedback forms, the NRC continues to improve its interactions with the public, which includes providing supporting documents, categorizing meetings to define the level of participation provided, and following up with answers to questions that cannot be addressed during the meeting. The NRC issued the latest analysis of public meeting feedback forms in August 2003, representing 112 meetings. The majority of respondents felt that the meetings achieved their intended purposes and helped the participants better understand the topics of discussion. Respondents also felt that they were given sufficient opportunities to ask questions or express their views. Comments on the meetings were constructive and assisted the NRC in developing future meeting plans.

Public Outreach: Public outreach meetings give the public opportunities for meaningful participation in NRC activities, and give the staff a means to provide the public with information on those activities. In FY 2003, the NRC held all of the planned public outreach meetings in Nuclear Waste Safety.

The NRC also continued to respond to specific requests from affected units of local governments or others for public meetings on various aspects of the agency's HLW program. Examples of public outreach efforts in FY 2003 included two public meetings held in California to provide an overview of the NRC's role in the potential licensing of the proposed geologic repository at Yucca Mountain, with specific presentations on associated groundwater, transportation, and security issues.

In FY 2003, the NRC also conducted several public meetings associated with environmental reviews conducted under the National Environmental Policy Act. These included meetings for the environmental review of the decommissioning of the Sequoyah Fuels Corporation facility in Gore, Oklahoma, and a scoping meeting on the Generic Environmental Impact Statement (GEIS) on Controlling the Disposition of Solid Materials. In addition, the NRC conducted a technical exchange with DOE on the adoption of the Yucca Mountain Final EIS, and participated in a scoping meeting for the EIS concerning the decommissioning of the West Valley Demonstration Project in West Valley, NY.

The NRC participated in more than 20 workshops, conferences and town hall meetings with representatives of various Federal, State, and local agencies; international bodies; the nuclear industry; and public interest groups. These outreach activities focused on spent fuel storage and transportation issues. The public meetings concerning the Package Performance Study, held in March 2003, were the most notable of these activities.

Director's Decisions: The third measure assesses the timeliness of the Director's Decisions regarding petitions to modify, suspend, or revoke a license under 10 CFR 2.206. The NRC received two petitions in FY 2003 in the Nuclear Waste Arena. In each case, NRC met its 120-day goal to complete its review and issue a decision. The average duration was 115 days.

Performance Goal: Make NRC activities and decisions more effective, efficient, and realistic.

Measure	1998	1999	2000	2001	2002	2003
Complete waste-specific milestones in the Risk-Informed Regulation Implementation Plan.	---------- Goal was achieved----------					
Complete at least two key process improvements per year in selected program and support areas that increase effectiveness, efficiency, and realism.	---------- Goal was achieved ----------					
Complete all major prelicensing milestones needed to prepare for a licensing review of the potential Yucca Mountain repository, consistent with DOE's schedules and before DOE submits its license application.	---------- Goal was achieved ----------					

Results: The NRC has met all of the performance goal measure targets.

Risk-Informed Regulation: The first measure focuses on progress in developing a coordinated approach to implementing risk-informed decisions throughout the agency's regulatory processes. The NRC accomplished the milestones toward developing a risk-informed regulation implementation plan (RIRIP) on schedule. These milestones included sending the RIRIP updates to the Commission, briefing the Commissioners on those updates (in March 2003 and September 2003), and revising a risk assessment for a dry cask storage system in response to peer review comments, improving the realism of the analysis.

Process Improvements: The second measure concerns actions to improve the NRC's internal processes. This year, the NRC completed two major process improvement reviews in Nuclear Waste Safety.

In the first review, the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) conducted a business process improvement (BPI) assessment of its contract financial management support activities. This cross-organizational assessment identified several immediate improvements to streamline communications, improve the quality of contract statements of work, and reduce concurrence time.

In addition, the BPI team identified potential future information technology solutions that are expected to improve timeliness and accuracy of contracting products and performance measurement capabilities. A BPI review of the NMSS licensing process began in FY 2003 and will continue through FY 2004.

In the second review for FY 2003, NRC completed a multi-year effort to update and consolidate the current decommissioning guidance in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," while making it more risk-informed and performance-based.

Prepare for Licensing Review of Potential Yucca Mountain Repository: For the third measure, the NRC met all milestones for FY 2003.

The NRC published the final version of the Yucca Mountain Review Plan, which describes how the NRC will review DOE's license application against the requirements in 10 CFR Part 63 (Disposal of high-level radioactive waste in a geological repository at Yucca Mountain, Nevada). The NRC also continued exchanges with DOE concerning the key technical issues that are most important to licensing the potential HLW repository. These exchanges addressed subissues or led to agreements for DOE to submit additional information to address the NRC's concerns.

The FY 2003 milestone to issue an Integrated Issue Resolution Status Report (IIRSR) for the proposed geologic repository at Yucca Mountain was actually completed in FY 2002. This report identifies the status of NRC and DOE pre-licensing interactions on key technical issues that are important to repository performance. When sufficient new information warrants, the NRC may issue an update to this report.

Performance Goal: Reduce unnecessary burden on stakeholders.

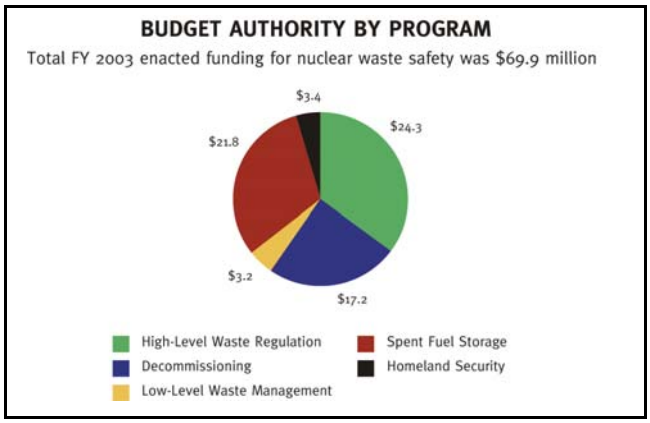
Measure	1998	1999	2000	2001	2002	2003
Complete specific milestones to reduce unnecessary regulatory burden.	----------Goal was achieved--------NA[49]---------					

Results: The NRC has met all of the performance goal measure targets.

The FY 2003 Performance Plan identified two milestones. The first was to adopt and implement Standard Technical Specifications (STS) for spent fuel dry storage cask designs. However, as of September 30, 2003, the NRC has not received any applications to adopt the STS. The second milestone was to issue an Integrated Issue Resolution Status Report (IIRSR) on technical information pertinent to the review of the proposed HLW repository. This effort supported two performance goals. The result of this milestone is provided in the above last paragraph of the previous performance goal discussion.

FUNDING FOR ACHIEVING NRC'S STRATEGIC AND PERFORMANCE GOALS

The Nuclear Waste Safety budget totaled $69.9 million in FY 2003. This budget was allocated to five key programs. Each program plays a specific role in ensuring the safety, protection, and security of the public and environment from radioactive waste. Most of the funding was budgeted for HLW regulation and spent fuel storage and transportation. The regulation of decommissioning accounted for about a quarter of the funding. Low-level waste management and homeland security make up the remainder.



PROGRAM EVALUATION

The NRC's FY 2000–2005 Strategic Plan identified a program evaluation entitled "Changes to the Decommissioning Process," to be completed for Nuclear Waste Safety during FY 2003. The NRC conducted several additional program evaluations.

Changes to the Decommissioning Process

The NRC completed its evaluation of the decommissioning process in FY 2003. The final report is located at www.nrc.gov/materials/decommissioning.html.

The objectives of the Decommissioning Program Evaluation were to: 1) evaluate the effectiveness of NRC's Division of Waste Management (DWM) Decommissioning Program; 2) evaluate individual program changes/improvements; and 3) recommend future improvements. The scope of this program evaluation was limited to the regulation of decommissioning of nuclear materials facilities and fuel cycle facilities included on the Site Decommissioning Management Plan (SDMP) and complex site list during the FY 2001–FY 2003 time period. Also included within the scope of the program evaluation were those activities related to power reactor decommissioning that DWM was responsible for before the transfer of most power reactor decommissioning from the Office of Nuclear Reactor Regulation (NRR) to the Office of Nuclear Materials Safety and Safeguards (NMSS) during FY 2003.

The evaluation found that the Decommissioning Program has been effective at meeting the Agency's strategic and performance measures and removing sites from the SDMP list after completion of decommissioning and license termination. The program also has effectively used many types of self assessments and program changes to improve the regulatory framework, decommissioning processes, internal program management processes, and public involvement. The NRC believes these improvements have been useful and those that are ongoing should continue to be used.

Although improvements have been made, future improvements would be beneficial. The Program Evaluation makes additional recommendations for consideration by program managers. These recommendations primarily would improve internal program management.

Because of the persistent challenges facing the Decommissioning Program as well as the high cost to licensees for decommissioning, the NRC believes that its near-term goal should be to continue improving the efficiency and timeliness of decommissioning activities at all decommissioning sites without impacting safety or public confidence.

Analysis of Issues Related to Implementation of the License Termination Rule

The NRC conducted this evaluation in response to a request from the Commission. In general, the NRC's experience with the License Termination Rule (LTR) has revealed some important implementation issues impacting the decommissioning of sites. In June 2002, the Commission directed the NRC to conduct an analysis of LTR implementation issues, emphasizing resolution of the institutional control issues and keeping with the goal of making the LTR provision for restricted release and alternative criteria more available for licensee use.

In October 2002, the Commission reviewed an initial analysis that described the scope of each issue and the NRC's plans for evaluation. The Commission reviewed the results of the analysis of LTR issues on May 2, 2003. The analysis paid particular attention to resolving the restricted release and alternative criteria issues. The NRC also evaluated other issues, including the relationship of the LTR release limits to other release limits, realistic exposure legacy sites, among others. To address these issues, the report recommended a variety of actions for Commission scenarios, and measures to prevent future consideration, including (1) a rulemaking to establish measures to prevent future legacy sites; 2) revised guidance to support the rulemaking and clarify restricted release, onsite burial, and realistic exposure scenarios; (3) revised inspection procedures and enforcement guidance to enhance monitoring, reporting, and remediation to prevent future legacy sites; and (4) a regulatory issue summary (RIS) to inform a wide range of stakeholders about the LTR analysis of each issue, the related Commission direction, and actions planned to resolve each issue. The report can be found on NRC's Web site (under "Search," type in "SECY-03-0069").

In summary, the outcomes of the agency's recommendations affect both existing and future decommissioning sites. For existing decommissioning sites, particularly the complex sites with long-lived radionuclides, many recommendations should facilitate decommissioning by addressing key challenges these sites must address. Consistent use of more realistic exposure scenarios could result in more economical decommissioning, while maintaining safety. Furthermore, this recommendation could also result in fewer sites that might need to use the restricted release or alternate criteria. For those few sites, however, that might still need to use the restricted release or alternate criteria provisions of the LTR, viable options for restricting use are recommended. For future decommissioning sites, specific measures are recommended for financial assurance, licensee operations and reporting, and on-site disposal, that should reduce or mitigate the potential for future "legacy" sites that may not have the financial ability to complete decommissioning. Together, these outcomes contribute to the Commission's preference for license termination, with unrestricted release, which results in the greatest opportunity to return the site to productive use.

Risk Insights Initiative for the Proposed Yucca Mountain Project

The NRC continues to implement the Risk Insights Initiative that the agency launched in FY 2002. This initiative will assist the NRC in identifying the most important information related to the performance of the proposed Yucca Mountain repository, and resolution of licensing issues. The NRC has identified nine key technical issues, such as thermal effects on

the flow of water, that are most significant to repository performance. The final analysis of key technical issues can be found on NRC's Web site under "Radioactive Waste, Key Topics–High-Level Waste Disposal, Regulatory Initiatives on Key Technical Issues." The NRC and DOE have developed formal agreements on the information that DOE needs to furnish in order to address each of these issues and their related subissues. The NRC presented its Risk Insights Initiative to the Advisory Committee on Nuclear Waste (ACNW), highlighting the expectation that this initiative will help to focus regulatory activities and support risk-informed decisionmaking during the prelicensing and licensing phases of the repository program.

In FY 2003, as part of this effort, the NRC developed a risk insights baseline and a risk significance-ranked listing of the NRC-DOE agreements to address key technical issues on the proposed repository. The NRC is currently integrating this risk insights baseline and the agreement ratings into other HLW program activities, such as the issue resolution process and the development of inspection procedures.

INTERNATIONAL NUCLEAR SAFETY SUPPORT

Strategic Goal: Support U.S. interests in the safe and secure use of nuclear materials and nuclear nonproliferation.

Overview

International Nuclear Safety Support encompasses international nuclear safety and regulatory policy formulation, import/export licensing for nuclear materials and equipment, treaty implementation, and deterrence of nuclear proliferation. It also encompasses information exchange and safety and safeguards cooperation and assistance. The international activities of the NRC support broad national interests of the United States as well as the domestic mission of the agency.

Maintaining a Program of International Cooperation

The NRC maintains a program of international cooperation to enhance the safe, secure, and environmentally acceptable civilian uses of nuclear energy both within the United States and throughout the world. This program includes working with international organizations, such as the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA).

The International Nuclear Safety Support Arena also encompasses the issuance of import/export licenses. This responsibility includes activities to ensure compliance with statutes, treaties, conventions, and agency agreements for cooperation. It also supports the work of the Agency for International Development as it relates to the countries of the Former Soviet Union and Central and Eastern Europe.

As the regulator of the world's largest civilian nuclear program, the NRC has extensive regulatory experience to contribute to other nations' programs in such areas as nuclear reactor safety, nuclear safety research, radiation protection, nuclear materials safety and safeguards[50], nuclear facility and materials security, waste management, and decommissioning of nuclear facilities. In addition, the NRC supports the development and implementation of international regulatory standards, policies, and practices. The NRC, in turn, can learn from the regulatory experience of other countries. Toward that end, the NRC gains access to non-U.S. safety, security, and safeguards information through interaction with foreign entities, thereby leveraging the agency's resources.

During FY 2003, the NRC continued to provide extensive support to international developments in response to the possible terrorist use of radiological dispersal devices and radiological exposure devices. This support included participation by the NRC Chairman and senior management in the IAEA International Conference on the Security of International Sources in Vienna, Austria, in March 2003. In addition, during technical meetings held in Vienna in March and July 2003, NRC staff supported the IAEA in developing its revised Code of Conduct for the control and security of radioactive sources. NRC staff contributions toward the IAEA's revised Code of Conduct were particularly notable in categorizing the sources of greatest concern.

On July 7–11, 2003, NRC presented several papers at the "International Conference on the Safety of Transport of Radioactive Material," conducted at the Austria Center of the IAEA. The IAEA sponsored this conference to encourage the exchange of information concerning issues related to the safe transportation of radioactive material. The conference findings, which were presented during the IAEA General Conference in September, acknowledged the high level of safety embodied in current transport regulations.

Nonetheless, the conference findings are also expected to emphasize the need to develop implementing guidance to ensure consistent application of the transportation regulations and to facilitate international commerce. In addition, the findings are expected to highlight the need for continued dialogue regarding liability for transportation accidents and advanced notification of shipments. The actions taken by the IAEA General Conference in response to these findings have the potential to shape NRC's activities related to the development of regulations for international transportation of radioactive materials over the next several years.

The NRC participated in an IAEA Operational Safety review Team mission to Brazil; follow-up International Regulatory Review Team missions to Hungary and Switzerland; and a Transport Safety Appraisal Service mission to Panama.

As a result of the NRC's participation in the biennial NEA Steering Committee Meetings in 2002 and 2003, and the leadership roles of the NRC's senior management in three key technical committees, the NRC staff reviewed the NEA's Strategic Plan to identify possible additions to the plan to foster better leverage of resources, with emphasis on programs that will ultimately benefit technical work conducted by the United States.

Strategic Goal Results

The NRC has established the following three measures to determine whether the agency has met its strategic goal in International Nuclear Safety Support.

Measure	1998	1999	2000	2001	2002	2003
Fulfill 100 percent of the significant obligations over which the NRC has regulatory authority arising from statutes, treaties, conventions, and Agreements for Cooperation.	---------- Goal was achieved ----------					
No significant proliferation incidents attributable to some failure of the NRC.	----------Goal was achieved----------					
No significant safety or safeguards events that result from the NRC's failure to implement its international commitments.	----------Goal was achieved ----------					

The NRC has met all of the strategic goal measure targets.

Significant Obligations: For the first performance measure, the NRC carried out 100 percent of the significant obligations over which it has regulatory authority arising from statutes, treaties, conventions, and Agreements for Cooperation[51] during FY 2003. For example, the NRC facilitated the timely processing of all export license applications and provided timely comments to the Executive Branch when consulted on proposed international nuclear agreements and technology transfers. In addition, the agency began preparing in September 2003 for its anticipated participation in the Third Review Meeting of the Contracting Parties under the Convention on Nuclear Safety to be held in Vienna, Austria, in April 2005.

The NRC also participates in the development of other international legal framework documents. For example, the agency participated in the final meeting of the Legal and Technical Experts Group to prepare a draft Amendment of the Convention on the Physical Protection of Nuclear Materials in March 2003, and the Joint Waste Convention. On May 2, 2003, the NRC, in concert with DOE and the EPA, finalized the U.S. National Report. The NRC also participated in defining the IAEA Safeguards Additional Protocol.

Proliferation: The NRC achieved its second performance measure in FY 2003. Reports by the U.S. Government, the IAEA, and other authoritative international organizations did not attribute any significant proliferation incidents[52] to any failure by the NRC.

Safety or Safeguard Events and Support: The NRC also achieved its third performance measure in FY 2003. No significant safety or safeguards events resulted from any failure by the NRC to implement its international commitments.

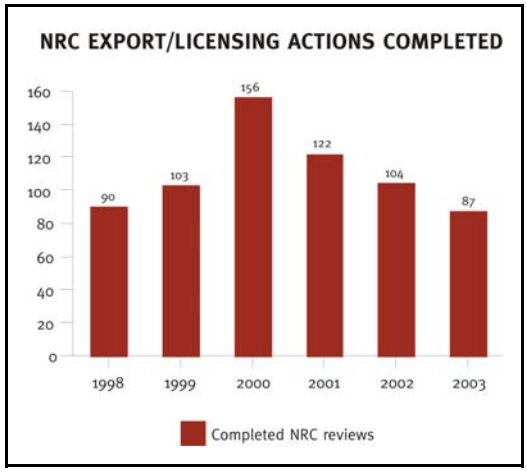
Moreover, the NRC aided in the successful design and incorporation of the "Obligation Tracking" component into the U.S. national nuclear material management and safeguards system tracking database. The "Obligation Tracking" component tracks nuclear materials that are subject to various treaties and agreements undertaken by the U.S. Government. The NRC also presented the details of "Obligation Tracking" to the nuclear industry. As a result of the implementation of "Obligation Tracking," the NRC (1) streamlined "Obligation Exchanges" between the U.S. and Canadian governments supporting the trade of natural uranium, and (2) simplified the recording of country obligations at a power reactor.

The NRC was instrumental in helping the IAEA to meet its safeguards implementation goals at the down blending facility in Lynchburg, Virginia. Effective interactions between the facility operator, the NRC, and the IAEA, enabled the IAEA to achieve its goals, despite frequent IAEA equipment failures.

The NRC also supported the U.S. Executive Branch agencies in drafting and reconciling the implementing legislation and national security policy directive for the Additional Protocol to the U.S.-IAEA Safeguards Agreement. The Additional Protocol is currently under consideration for approval by the U.S. Senate as a treaty.

The NRC also participated in physical protection bilateral meetings with South Korea, Taiwan, Australia, Japan, and the Netherlands, as well as international safeguards bilateral meetings with Japan, Germany, France, the United Kingdom, Euratom, and the IAEA.

During FY 2003, the NRC also approved four license amendments authorizing the export of highly-enriched uranium (three to Canada and one to Euratom) for use as target material for medical isotope production. Of the 87 export and import licensing actions undertaken this year, the NRC completed all but four within the 60-day processing deadline[53]. These licensing actions include reviews of proposed exports of proliferation-sensitive equipment and material.



The NRC granted exemptions for five separate imports of major reactor components to five U.S. utility companies. The NRC published a direct final rule in the Federal Register to allow imports of major reactor components under the NRC's general import license authority, provided that the U.S. end user is an NRC licensee under 10 CFR Parts 50 or 52.

The NRC also continued to engage in bilateral nuclear safety-, safeguards-, and security-related assistance activities with the agency's regulatory counterparts in Russia, the Ukraine, Armenia, Kazakhstan, and Lithuania. The NRC conducts these activities in close coordination with other U.S. Government agencies (including the departments of State and Energy) and international entities (including the IAEA) that provide similar assistance. In addition, during FY 2003, the NRC expanded its efforts to provide regulatory assistance to enhance the safety and security of radioactive sources. The NRC successfully concluded eight bilateral exchange agreements in FY 2003 between the Commission and appropriate foreign counterparts to ensure that an effective framework exists for the agency's international exchanges.

FUNDING FOR ACHIEVING NRC'S STRATEGIC AND PERFORMANCE GOALS

The International Nuclear Safety Support budget totaled $5. 2 million in FY 2003.

PROGRAM EVALUATION

The NRC's Strategic Plan identified no program evaluations for International Nuclear Safety Support in FY 2003.

ADDRESSING THE PRESIDENT'S MANAGEMENT AGENDA

Overview

The President's Management Agenda for FY 2003 contained Governmentwide initiatives to reform Government to be more citizen-centered, results-oriented, and market-based, and to actively promote competition rather than stifling innovation. As a result, the President identified five Governmentwide initiatives to improve government performance: (1) strategic management of human capital, (2) budget and performance integration, (3) competitive sourcing, (4) expanded electronic government, and (5) improved financial management.

The NRC has responded to these Governmentwide initiatives, and our FY 2003 accomplishments in these five areas are identified in the following five sections, respectively. In addition, the NRC's Inspector General identified nine management challenges, which these actions also address (see the Inspector General's assessment in Appendix A of this report).

Strategic Management of Human Capital

The NRC recognizes the importance of human capital management in supporting the achievement of the agency's mission and its strategic and performance goals. The NRC's continuing focus on sustaining a diverse, high-quality workforce will ensure the continuity of leadership and technical competence in the future.

Strategic Alignment

In FY 2003, the NRC updated its Strategic Human Capital Plan, which the agency first developed in FY 2002. This plan describes the agency's continuing commitment to strengthen the NRC's human capital efforts to achieve our goals. In addition, the NRC identified resource allocations for human capital strategies and programs that are available to managers in making strategic human capital decisions of agencywide or program-specific relevance.

Workforce Planning and Deployment

The NRC's Strategic Workforce Planning (SWP) methodology and automated system, implemented last year, is being widely utilized by NRC employees. During FY 2003, 85 percent of all employees voluntarily assessed their skills and competency levels in the Web-based system.

Prior to the NRC's implementation of this system, skills data were not gathered and, therefore, were not available for workforce planning purposes. This year, the SWP workgroup conducted training sessions for regional and headquarters managers and supervisors and shared results of SWP data analysis, including critical skills gaps, closure strategies, trends, comparisons, and human capital challenges.

The Office of Personnel Management (OPM) has recognized the agency's SWP process as one of the best in the Federal Government. As a result, the NRC has demonstrated the SWP system and methodology during several OPM workshops. The NRC has also demonstrated the system and methodology in response to requests from representatives of a variety of other Federal

agencies, including the Federal Bureau of Investigation, General Services Administration, U.S. Customs Service, Army Corps of Engineers, Library of Congress, and Department of Defense.

In FY 2003, the NRC also implemented a Human Capital Action Team concept to provide fast, reliable solutions to human capital challenges occurring throughout the agency. To date, this team has assisted with specific recruitment and training needs for various program offices. For example, the team assisted the staff of an engineering division in addressing the anticipated large number of retirements of senior staff. As a result, the division developed a plan to facilitate knowledge transfer from experienced staff to new hires and interns.

In FY 2003, the Commission reviewed restructuring proposals and approved functional changes to the Office of Enforcement, as well as regional consolidation of nuclear materials licensing and inspection and fuel cycle facility inspection activities. Various NRC offices also completed self-assessments of their management and organizational structures to determine if greater effectiveness can be achieved by redesigning work processes, realigning functions, and further reducing unnecessary layers of management.

Talent

The NRC is fully committed to using the agency's human capital management strategies. These strategies include recruitment bonuses, retention allowances, waivers of dual compensation restrictions, early replacement hiring, a cooperative education program, the Honor Law Graduate Program, the Graduate Fellowship Program, various summer employment programs, student loan repayment incentives, internships, rotational assignments, mentoring, and training and development opportunities. Over the past two years, the agency's use of these strategies has enabled the NRC to meet or exceed its hiring, diversity, retention, and development goals.

The NRC also continues to provide a wide range of flexible work options and employee-friendly programs and policies to help recruit and retain employees. These include the availability of compressed work schedules, health and fitness centers, telecommuting, and child care tuition assistance, among others.

In FY 2003, the NRC continued its efforts to recruit diverse and high-quality individuals for the agency's mission-critical occupations. Toward that end, agency representatives attended approximately 75 events, of which 42 were targeted to reach minorities, women, and disabled individuals.

Leadership and Knowledge Management

In FY 2003, the NRC continued to invest in improving the capability of the agency's workforce through training, development, and continuous learning. The agency offers leadership competency development programs, such as the Senior Executive Service (SES) Candidate Development Program and the Leadership Potential Program (LPP). These programs help to prepare highly qualified potential successors for future mid-level and senior- level leadership positions. The agency also encourages employees to pursue rotational assignments and individual development plans to develop skills that better support the agency's needs. All 23 of the 2001 SES Candidate Development graduates have been placed in SES positions. Several of the 22 participants in the current class have also already been placed. In addition, the agency has successfully placed a majority of its recent LPP graduates in supervisory and team leader positions.

This year, the NRC provided technical and professional training using a systematic approach to support the agency's formal qualification and development programs, and to achieve and maintain the core competencies needed to carry out the agency's mission. The agency has also developed a variety of programs and tools to facilitate the ongoing sharing of knowledge. For example, one office developed a self-paced training guide to assist new electrical engineering staff in better understanding how technical requirements were derived from regulatory guidance.

The NRC also added a new leadership competency module to the SWP system based on OPM SES Executive Core Qualifications. This module gives SES managers a means to specify their executive skill levels and developmental needs.

Performance Culture

In FY 2003, the NRC continued its efforts to improve the alignment of individual performance plans with the agency's strategic and performance goals. Toward that end, the NRC has a performance management program that includes agency-level and Government-wide recognition for high performers at all levels, from Presidential Rank Awards for SES managers to monetary, non-monetary, and informal recognition awards for non-SES employees. In addition, the NRC has developed a model to revise SES performance plans to ensure that they align with the agency's performance goals and the President's Management Agenda initiatives. The NRC anticipates implementing changes to the SES performance management system by July 1, 2004, at the beginning of the performance management cycle.

Accountability

This year, the NRC developed a framework for human capital alignment and accountability. The framework depicts the interrelationships between the various parts of the agency's planning and measurement system. The NRC will assess, revise, and implement the human capital accountability plan to enhance the agency's management of human capital.

Twice each year at the biannual EEO briefings, the agency also reviews its workforce by looking at demographic information over a five-year period. The analysis includes workforce size and composition, hires, attrition, rotational assignments, performance appraisals, and awards. These statistics are shared throughout the agency.

The NRC's Office of Human Resources has also analyzed its staffing operations to establish standard times and accountability for each activity. The agency used the results of this analysis to implement the first service level agreement (SLA) with a program office. In partnership with the program offices, the Office of Human Resources plans to implement SLAs for HR staffing operations with all offices to strengthen the shared accountability for improving the hiring and selection process.

In addition, the NRC's Executive Resources Board (ERB) serves as the agency's Human Capital Review Team. The ERB is responsible for overseeing the NRC's Senior Executive and Senior Level System merit staffing, and executive succession planning. The board also provides oversight and coordination of all agency work related to the President's Management Agenda. The NRC Commission is briefed annually on the agency's human capital efforts.

Budget and Performance Integration

The NRC has made significant progress in achieving the budget and performance integration called for in the President's Management Agenda. This includes identifying high-quality outcome measures, accurately monitoring the performance of programs, and integrating this information with associated costs. The NRC has also been documenting program effectiveness and using this information to make budget decisions. To address these initiatives, the NRC has pursued and completed a number of actions in FY 2003, as discussed below.

Integrating Planning and Budgeting

The NRC's PBPM process is the fundamental framework for the agency's planning and budgeting. This process establishes plans that define clear goals to be accomplished and tracks progress during the year to ensure that the NRC achieves the desired results. The process also links NRC budget accounts to the goals to clearly establish the budgetary resources that are devoted to each goal.

The GAO issued a report in December 2002 entitled "Managing for Results, Efforts to Strengthen the Link Between Resources and Results at the Nuclear Regulatory Commission." In that report, GAO described how the NRC uses the PBPM process to integrate planning and performance information with budget formulation and execution decisions by providing a common language and common goals.

During FY 2003, the NRC continued developing a management directive that defines the roles and responsibilities of offices and individuals involved in performance measurement. This directive will provide guidance to agency employees on performance measurement. The NRC expects to finalize and implement the management directive in FY 2004.

Full Budgetary Cost

The NRC's program managers currently receive cost reports that show the full costs of major programs. These reports allow managers to plan and manage their programs better through the budget year. The NRC's Budget Estimates and Performance Plan also presents the full cost budget to achieve the agency's goals. The agency's FY 2005 budget request is the first budget submission in which the NRC has shown the full cost at the program level. The NRC will continue to refine the integration of outputs, goals, and assignment of full costs across programs as outlined in the OMB guidance for the FY 2005 budget.

Program Effectiveness

In FY 2003, the NRC's Reactor Inspection and Performance Assessment Program and the Fuel Facilities Licensing and Inspection Program became the first to be evaluated using the Program Assessment Rating Tool (PART). Both programs were rated effective which is the highest rating possible in the PART scoring system. This experience yielded valuable insights for future PART reviews and evaluations of all NRC programs. The NRC has also been working to modify the agency's performance appraisal system for senior executives to better align accountability for performance with achieving organizational objectives.

Competitive Sourcing

One of the NRC's corporate management strategies is to acquire goods and services in an efficient manner. The agency has continued its strong emphasis on procurement streamlining and innovation as the key to improving the efficiency of the contracting process. In addition, the NRC has established output measures associated with the implementation of the competitive

sourcing initiative under the President's Management Agenda, adopted a performance-based approach to contracting, and posted procurement synopses on the Internet.

In the area of competitive sourcing, the NRC has made significant progress toward achieving the OMB objective of considering a minimum of 15 percent of commercial positions for competitive sourcing by the end of FY 2003. However, on May 29, 2003, OMB revision to Circular A-76 significantly impacted the NRC's competitive sourcing strategy. Prior to that revision, the NRC had completed one direct conversion and four streamlined cost comparison studies (SCCSs); initiated one direct conversion and five SCCSs; and was in the process of initiating five additional SCCSs. However, since the revised circular became effective upon publication, the NRC suspended its ongoing activities to assess the changes. The NRC is currently re-evaluating its competitive sourcing strategy consistent with the guidance contained in the Competitive Sourcing Report that OMB issued in July 2003.

The NRC's interoffice core team consists of representatives from the major program offices and regions for the purpose of developing strategies and approaches to achieve the agency's Competitive Sourcing goals. The core team continues to ensure that the inventories of inherently governmental and commercial positions submitted to OMB under the Federal Activities Inventory Reform (FAIR) Act are accurate and consistent throughout the agency.

The NRC continues to implement performance-based contracting (PBC) for facility management services, data entry, information technology, and other support services to give vendors a better understanding of contract requirements. In so doing, the NRC includes such criteria as measurable performance requirements, quality standards, quality surveillance plans, and provisions for reduction of fee or price when services are not performed. During FY 2003, the NRC continued to exceed the 20 percent eligible service contracting dollars using PBC. The NRC also served on a Governmentwide working group convened by the Office of Federal Procurement Policy (OFPP) to establish a broader understanding of PBC and to identify ways to increase agency use of PBC. The OFPP task force report, issued in July 2003, includes recommendations for changes to current regulations and guidance that would give agencies more flexibility in implementing PBC effectively, appropriately, and consistently.

During FY 2003, the NRC has continued to post on the Governmentwide point-of-entry Web site all required synopses for acquisitions valued at over $25,000 and all associated solicitations. In addition, the agency streamlined its paper-intensive ordering and payment functions through increased use of the purchase card.

Expanded Electronic Government

The NRC has actively pursued implementation of expanded electronic government. During FY 2003, 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 13 of the 25 OMB E-Gov initiatives. The agency is also making good progress toward integrating its processes for Capital Planning and Investment Control (CPIC), Federal Information Security Management Act (FISMA), and Enterprise Architecture (EA). The agency has also increased its focus on IT system performance measurement and tracking. In addition, the NRC has conducted an "E-Gov gap analysis" to address requirements and E-Gov compliance with several legislative initiatives, such as the Government Paperwork Elimination Act (GPEA), the Federal E-Gov Strategy, and the Federal Enterprise Architecture.

During FY 2003, the NRC has emphasized the E-Gov requirements and benefits to key staff and managers. Toward that end, the agency has held a series of briefings and discussions with agency personnel to communicate the value of the E-Gov initiatives. The NRC has also evaluated the alignment of key E-Gov requirements with the agency's mission, budget, and architecture; security compliance; interagency coordination; Web applications and information compliance; and CPIC compliance for information technology. The NRC has also designed a guidance, oversight, and status reporting structure for E-Gov activities in order to monitor progress in furthering the use of E-Gov.

E-Gov Initiatives

Of the 13 initiatives related to E-Gov, the NRC has made the most progress in E-Rulemaking, E-Records, Integrated Acquisitions, E-Clearance, E-Payroll, and E-Grants. By May 2003, the NRC had used E-Clearance to provide clearance information to OPM. The NRC has also become recognized as a leader in online rulemaking and E-Records management solutions and has shared best practices with initiative partners. In addition, the NRC received the FY 2003 Archivist's Achievement Award in Records Management for implementing the first Federal enterprise-wide electronic recordkeeping system to capture, maintain, and manage electronically the complete life cycle of "official records." The NRC expects the work with the E-Grants initiative to reduce the costs associated with paper, improve program management, and reduce processing requirements. With each of these E-Gov initiatives, the NRC continues to actively assess the impact of the solutions and, where beneficial, work with the other contributing agencies to implement them.

Other E-Gov initiative accomplishments during FY 2003 include continuing the implementation of an integrated payroll and human resources system, maintaining membership in the Regulation Community of Practice (E-Reg CoP), continuing to serve on the Federal Acquisition Management Information System (FAMIS) project; and continuing involvement in the Small Agency Council.

Capital Planning and Investment Control

Management Directive 2.2 documents the NRC's CPIC process. In accordance with that process, all of the NRC's major IT systems have a business case, and the NRC has validated the business cases against new criteria (Exhibit 300) required by OMB. The agency has also incorporated the new criteria into exhibit preparation guidance and trained staff in its use. During FY 2002, the NRC had applied this new process to about 60 percent of the agency's IT budget for FY 2004. Both OMB and the agency agreed that the NRC should reduce the number of Exhibit 300s submitted for the FY 2004 budget cycle. Therefore, in conjunction with OMB, the NRC has consolidated or eliminated 22 of the original 34 Exhibit 300s during FY 2003. The NRC will continue to review and adopt OMB guidance in this area, implement changes to the agency's CPIC process, and update Management Directive 2.2 when necessary.

Enterprise Architecture

The NRC has made progress in embracing Enterprise Architecture (EA). During FY 2003, the agency refined its EA activities to reflect OMB guidance and to align related activities with the new Federal Enterprise Architecture (FEA). The NRC also implemented an automated EA tool to capture and document the agency's EA. The agency specifically designed this tool to provide the necessary reports to facilitate the CPIC process, involvement of the Environmental Configuration Control Board (ECCB), preparation of OMB 300 reports, and other processes used for investment planning and decisionmaking related to information technology.

In FY 2003, the NRC focused on strengthening the integration of EA with CPIC to more effectively link business systems to the agency's mission. The NRC also developed EA strategy documents, including an EA Revitalization Plan to facilitate progress improvements in EA. Another key document in this area is a revision of Management Directive 2.1, "Information Technology Architecture (Enterprise Architecture)." Other important efforts included issuing the agency's Technical Reference Model and draft Technology Plan.

Federal Information Security Management Act (FISMA)

In FY 2003, the NRC updated a number of IT security processes and procedures. These include the information systems security reporting procedures and the vulnerability alert and patch dissemination and tracking process. The NRC also upgraded the agencywide automated information security policy directive during this fiscal year. The upgraded policy directive is currently in final coordination. The NRC also implemented all FISMA requirements. Risk assessments, security plans, and IT contingency plans are in place for all of the agency's major applications and systems. All systems have completed the annual FISMA security program reviews, and security controls have been reviewed or tested.

The NRC also has an effective IT security training and awareness program, and all employees are required to complete an online IT security training course. All NRC information systems security officers (ISSOs) and other employees and support contractors with significant security responsibilities have also completed a more advanced online technical security course. The NRC also has a robust incident reporting program in place and files monthly reports to the Federal Computer Incident Response Center (FedCIRC). The FISMA corrective action plan is the primary mechanism used by senior agency officials in managing the agency-wide automated information security program. The NRC provides the required quarterly reports to the OMB.

Performance Measures

The NRC has reviewed all major IT systems to ensure that they are operating within 90 percent of the targets for cost, scheduling, and reliability. Should systems deviate from the 90-percent target, the NRC will identify and implement appropriate corrective actions, as required by the Clinger-Cohen Act. The NRC's FY 2004 Budget Estimates and Performance Plan includes output measures for IT security. The NRC is continuing its focus on the project control phase of the CPIC process and will continue to monitor the performance of the agency's major IT systems.

Government Paperwork Elimination Act (GPEA)

The NRC has a GPEA compliance task force to ensure that the agency will meet its paperwork elimination goal. In addition, the agency has identified key E-Gov requirements that will help to guide the NRC in complying with the GPEA. The NRC has continued to map statutory requirements to agency practices to determine which areas need greater attention. The task force will continue to monitor progress monthly.

Citizen One-Stop Access to the NRC

The most important enhancement to the NRC's public Web site in FY 2003 was enabling the public to search the agency's online public document repository (known as the Agencywide Documents Access and Management System, or ADAMS) using a Web-based search engine. This new capability greatly improved ease of access to the NRC's public documents. A second major enhancement was the completion of the Facility Information Finder, which provides easier access to important public information on nuclear power plants (such as plant performance and enforcement actions) by facility name or location. The latter was a key

stakeholder request that the agency identified during the redesign of our public Web site. Additional enhancements included posting new versions of NRC forms in a "fillable" format so that they can be filled in on line, enabling the public to more easily print entire parts of the NRC's regulations (10 CFR) in addition to smaller subparts, and enabling the public to search individual document collections in addition to the full site.

Electronic Information Exchange — Minimizing the Burden on Business

The NRC launched the electronic information exchange (EIE) production system during FY 2001. The EIE program, a key component of the NRC's E-Gov activities, provides for the transmission of digitally signed electronic documents to the NRC over the Internet. Information received in this manner can then be electronically disseminated and loaded directly into the agency's information systems. EIE also plays a major role in enabling the NRC to meet the GPEA requirement to allow the public the option to transact business with the agency electronically. In FY 2003, the NRC developed and published a final rule and guidance on electronic maintenance and submission of information. This rule will help to bring the NRC's communications regulations into compliance with GPEA. It will also expand the number and types of documents that NRC stakeholders (including the public) can submit electronically.

The NRC continues to utilize the Electronic Hearing Docket (EHD), which allows electronic filings via EIE. The EHD is NRC's official hearing docket for DOE's anticipated license application to construct a high-level waste (HLW) repository at Yucca Mountain, Nevada. The EHD meets the requirements of 10 CFR 2.1.1013, to receive electronic filings from parties to the HLW proceedings.

In addition, NRC uses its Licensing Support Network (LSN), which provides shared document discovery and facilitates electronic motions practice for the adjudicatory hearing on DOE's anticipated license application for a HLW repository at Yucca Mountain. The NRC and the Nevada Counties of White Pine and Lincoln have begun to make their relevant materials available through this system. The LSN is intended to benefit the repository licensing proceeding by making all parties' relevant documents publicly accessible before docketing, ultimately providing the parties with significant information regarding the proposed repository that they can provide to the electronic and publicly accessible docket through a fully electronic filing process.

Productivity Improvements

During FY 2003, the NRC continued equipment replacement and ongoing operations under a performance-based seat management contract. The contract includes replacement, maintenance, and support of agency desktops; phase-in of desktop support for regional offices and resident inspector site expansion sites; network printers; and infrastructure.

In FY 2003, the NRC also implemented improvements in the agency's automated document processing operations, which reduced annual operating costs and improved products to end users. Improvements included superior scanned document images and text for the staff and public to access and enhanced oversight over processes and output through implementation of a document tracking system.

The NRC has established several output measures that gauge the agency's success in providing support services required by NRC personnel. For example, the NRC established measures for the availability of key infrastructure services and agency network servers for the NRC. In FY 2003, the NRC achieved a result of 99.6 percent and 99.8 percent respectively, in these two measures.

Improved Financial Management

Financial Management Systems

During FY 2003, the NRC's system strategy has focused on E-Government. The NRC is participating in several E-Gov initiatives and will need to modify its system structure to comply with these initiatives. Our current integrated systems satisfy operational and reporting requirements and provide timely, accurate, and useful information to agency managers.

In support of the President's Management Agenda and E-Gov initiatives, the NRC is converting the payroll and human resources modules of the agency's Human Resources Management System (HRMS) to an E-Payroll provider (namely the U.S. Department of Interior's National Business Center). This conversion was completed in 2003.

At the end of FY 2002, the NRC had a material weakness and a finding of substantial noncompliance with the Improvement Act for failure of the Cost Accounting System to meet Federal financial management system requirements and applicable Federal accounting and transaction standards. During FY 2003, the NRC conducted an independent post-implementation assessment of its Cost Accounting System, which identified those areas where the system was not in compliance with Governmentwide systems requirements. The NRC subsequently completed the implementation of the report's recommendations in FY 2003. In addition, the NRC completed actions to resolve the system's material weakness security deficiencies during FY 2003.

The Cost Accounting System is currently providing agency managers with periodic reports that reflect cost information at various activity levels. As such, the system is used in preparing the Statement of Net Cost for the agency's financial statements. The NRC Cost Accounting System is compliant with Governmentwide accounting standards and Governmentwide financial system requirements for FY 2003.

During FY 2004, the agency will initiate a two-phased project to consolidate, improve, and migrate the NRC's License Fee Bill Generator System to a single, contemporary IT environment. Phase one, which consists of a requirements analysis, will be completed in FY 2004. Phase two, which is scheduled to begin in FY 2005, will involve implementation of phase one recommendations.

Accurate and Timely Financial Information

The NRC has an ongoing program to supply agency managers with monthly accounting and budget execution reports and meet external reporting requirements. This program resulted in the following accomplishments:

- NRC received an unqualified opinion on its FY 2003 financial statements.
- The NRC's *FY 2002 Performance and Accountability Report* earned the agency a Certificate of Excellence in Accountability Reporting from the Association of Government Accountants.
- The NRC published standard cost management ratios in the agency's monthly Budget Execution Report for agency managers.
- The NRC electronically provided accounting system reports on users' desktop computers to reduce costs and provide current data on line for agency managers to use for funds management and control purposes.
- The NRC's external reporting activities met U.S. Department of the Treasury standards for timeliness, reconciliation, reliability, and consistency.
- The NRC issued quarterly cost management reports to agency managers for FY 2003.

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, HRMS, and fee billing systems. The agency also provides electronic access to daily financial transaction data and periodic summary reports for management use. Senior managers also 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 its FY 2003 financial statements, with no material internal control weaknesses. This was the 10th consecutive year the NRC received an unqualified opinion. The NRC will continue to pursue actions that will result in the issuance of financial statements with unqualified audit opinions and no material internal control weaknesses.

One material internal control weakness reported by the auditors for the FY 2002 financial statements involved incomplete implementation of managerial cost accounting. The NRC implemented corrective actions to address this material internal control weakness during FY 2003.

For the FY 2004 financial statements, including the Performance and Accountability Report, the agency has incorporated quarterly financial statements into the FY 2003 annual audit process and has established an internal performance and accountability report acceleration committee to meet the OMB due date of November 15, 2004.

DATA SOURCES AND QUALITY

The NRC's data collection and analysis methods are largely driven by the regulatory mandate entrusted to it by Congress. The NRC's mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment. In undertaking its mission, the NRC oversees nuclear power plants, non-power reactors, nuclear fuel facility transportation and disposal of nuclear waste, and the industrial and medical uses of nuclear materials. Section 208 of the Energy Reorganization Act of 1974, as amended, requires the NRC to inform Congress of incidents or events that the Commission determines to be significant from the standpoint of public health and safety. The abnormal occurrence (AO) criteria were developed by NRC in order to comply with the legislative intent of the Act to determine which events should be considered significant. Events that meet the AO criteria are included in an annual "Report to Congress on Abnormal Occurrences" (NUREG-0090), which is available at www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0090/v25.

Most of the data used to measure the strategic goals and the performance goals focused on maintaining safety are attained or derived from the NRC's AO data and are based on evaluation of reports submitted by NRC licensees and Agreement States.

One important characteristic of the data presented in this report is that the data normally originate from external sources such as Agreement States and NRC licensees. The NRC believes these data to be 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 programs and evaluates Agreement State programs to determine that information is being reported as required by the regulations, and (3) there are agency procedures for reviewing and evaluating licensees. The

NRC employs database systems that support this process, including 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 (REIRS).

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 NRC. Such sources include periodic inspections of licensees and reviews of Agreement States. In addition, daily interaction and exchange of event information occurs between headquarters and regional offices, and periodic conference calls are placed between headquarters, the region, and Agreement States to discuss event information. Events identified that meet the abnormal occurrence criteria are validated and verified by all applicable NRC headquarters program offices, regional offices, and agency management prior to reporting them to Congress.

Data Security

Data security is provided by the agency's automated information security program. This program provides administrative, technical, and physical security measures for the protection of the agency's information, automated information systems, and information technology infrastructure. This includes the policies, processes, and technical mechanisms used to protect classified information, unclassified safeguards information, and sensitive unclassified information that is processed, stored, or produced on automated information systems.

Data security for information maintained outside NRC's infrastructure is provided by the hosting contractor or organization. For major systems, the NRC ensures compliance with NRC standards through independent Federal Information Security Management Act (FISMA) reviews. The NRC's Office of the Inspector General (OIG) completed its independent assessment of NRC's implementation of FISMA dated September 11, 2003. The OIG found that the agency has increased the overall level of security for its information systems by having completed all required system security documentation and having successfully completed all FISMA requirements for the security certification and accreditation of all NRC information systems.

Improvements in performance data

The NRC analyzed its data verification procedures for all of its performance measures during FY 2003. The analysis consisted of an evaluation of the data collection, data analysis, and reporting procedures for completeness, accuracy, consistency, and timeliness. The analysis also included an evaluation of NRC management controls which ensure that the reported data are valid and reliable. As a result, the NRC believes that its performance data are valid and reliable.

A more complete discussion of validation and verification for NRC measures and metrics is included in the NRC FY 2004 Budget Estimates and Performance Plan (NUREG-1100, Vol. 19) that was submitted to Congress in February, 2003. Our performance plan is available on the NRC Web site at www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1100/v19/w. An extensive explanation of data verification and validation procedures for each performance measure is included in Appendix III of the Performance Plan.

The NRC makes performance data information accessible to citizens through our Web page. For example, if a citizen wanted to verify and/or know more about the licensee event reports, which provide the raw data for most of our performance measures, they can be retrieved through our Agencywide Documents Access and Management System (ADAMS) on our Web site at www.nrc.gov/reading-rm/adams.html by searching for "licensee event report."

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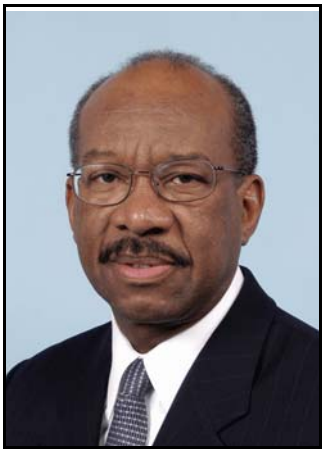
Chapter 3

Auditors' Reports and Financial Statements

A MESSAGE FROM THE CHIEF FINANCIAL OFFICER



I am pleased to present the Nuclear Regulatory Commission's financial statements for FY 2003, an integral part of the agency's FY 2003 *Performance and Accountability Report*. Our independent auditor has rendered an unqualified opinion on our financial statements for the 10th consecutive year. This opinion attests to the fact that NRC's financial statements are fairly presented, and demonstrates discipline and accountability in the execution of our responsibilities as stewards of the American taxpayers' dollars.

I note with great pride that, NRC received its second Association of Government Accountants' Certificate of Excellence in Accountability Reporting for its FY 2002 *Performance and Accountability Report*. This award recognizes outstanding reporting and is one of the highest forms of recognition for Federal performance and financial reporting.

Through the efforts and teamwork of program, financial management, and audit staff, we continue to be successful in achieving our goals and ensuring that our operations provide timely and reliable information that is used to promote results, accountability, and efficiency. During FY 2003, we successfully resolved the remaining auditor-identified material internal control weakness and substantial noncompliance with the Federal Financial Management Improvement Act. We accelerated by 6 weeks, the completion of this report. We also implemented the Governmentwide E-Payroll initiative on November 2, 2003, by successfully transitioning to the Department of Interior's National Business Center for our personnel and payroll services.

As of September 30, 2003, the financial condition of the NRC is sound with respect to having sufficient funds to meet its mission and having sufficient control of these funds to ensure our budget authority is not exceeded. We successfully collected $526.3 million in fees paid by NRC licensees, or approximately 100 percent of the agency's budget that is subject to fees. Our year-end delinquent debt was only $2 million, less than one-half of one percent of the fees collected. Payments to commercial vendors subject to the Prompt Payment Act were 94 percent on-time, and 99 percent of payments were made electronically. Improper payments were limited to less than one-half of one percent of payments made.

The NRC is committed to effective and efficient management of its resources and is implementing the President's Management Agenda. Our goals and strategies for improving financial management are centered on maintaining unqualified audit opinions with no material internal control weaknesses, meeting new reporting requirements, and implementing E-Government initiatives. We are addressing concerns identified as reportable conditions by the auditors in their review of the NRC's financial statements. We expect to meet the challenge of the FY 2004 reporting due date of November 15, 2004.

Your suggestions to make NRC's *Performance and Accountability Report* more informative and interesting are welcomed. I invite you to send comments by electronic mail to PerformanceandAccountability@nrc.gov.

I anticipate another productive year in 2004 and continuation of the same high level of quality financial services that resulted in our past successes. While we make progress, we are mindful of our support role in getting an unqualified audit opinion on the *Financial Report of the United States Government.*

Jesse L. Funches
December 19, 2003

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OFFICE OF THE
INSPECTOR GENERAL

December 17, 2003

MEMORANDUM TO: Chairman Diaz

FROM: Hubert T. Bell
Inspector General

SUBJECT: RESULTS OF THE AUDIT OF THE U.S. NUCLEAR REGULATORY COMMISSION'S FISCAL YEAR 2003 FINANCIAL STATEMENTS (OIG-04-A-03)

Attached is the independent auditors' report, issued by R. Navarro & Associates, Inc., on the U.S. Nuclear Regulatory Commission's (NRC) financial statements for the years ended September 30, 2003 and 2002. The Chief Financial Officers Act of 1990 requires the Inspector General (IG) or an independent external auditor, as determined by the IG, to annually audit NRC's Principal Financial Statements. The report contains: (1) the principal statements and the auditors' opinion on those statements; (2) the opinion on management's assertion about the effectiveness of internal controls; and (3) a report on NRC's compliance with laws and regulations. Written comments were obtained from the Chief Financial Officer (CFO) and are included as an appendix to the report.

Audit Results

The independent auditors issued an unqualified opinion on the balance sheet and the statements of net cost, changes in net position, budgetary resources, and financing.

In the report on management's assertion about the effectiveness of internal controls, the auditors concluded that management's assertion is fairly stated. The auditors identified three new reportable conditions and one prior-year reportable condition which remains resolved. Additionally, one prior-year reportable condition was closed. The new conditions concern information systems security access, monitoring of accounting for internal use software, and managerial cost accounting.

The report on NRC's compliance with laws and regulations disclosed one prior-year noncompliance. NRC's 10 CFR Part 170 hourly rates are not based on full cost.

Performance Reporting

As required by Office of Management and Budget Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*, with respect to internal control related to performance measures determined by management to be key and reported in the Management's Discussion and Analysis, we obtained an understanding of the design of significant internal controls relating to the existence and completeness assertions. Our procedures were not

designed to provide assurance on internal control over performance measures and, accordingly, we do not provide an opinion thereon.

Comments of the Chief Financial Officer

The CFO generally agreed with the auditors' recommendations and stated that corrective action has been taken or is underway. We will follow-up on the CFO's corrective action during FY 2004.

The independent auditors' management letter providing observations on ways to strengthen internal controls and operating efficiency will be sent separately.

We appreciate NRC staff's cooperation and continued interest in improving financial management within NRC.

Attachment: As stated

cc: Commissioner McGaffigan
Commissioner Merrifield

R. NAVARRO
& ASSOCIATES, INC.
CERTIFIED PUBLIC ACCOUNTANTS

2831 Camino Del Rio South, Suite 306
San Diego, California 92108
(619) 298-8193

INDEPENDENT AUDITORS' REPORTS

Chairman Nils J. Diaz
U.S. Nuclear Regulatory Commission
Washington, DC

In our audit of the U.S. Nuclear Regulatory Commission (NRC), we found:

- The balance sheets of NRC as of September 30, 2003 and 2002, and the related statements of net cost, statements of changes in net position, statements of budgetary resources, and statements of financing for the fiscal years then ended are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America;

- Management's assertion was fairly stated that NRC's systems of accounting and internal control in place as of September 30, 2003, are in compliance with the internal control objectives in the Office of Management and Budget (OMB) Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*. The Bulletin required that transactions be properly recorded, processed, and summarized to permit the preparation of the financial statements in accordance with accounting principles generally accepted in the United States of America and that assets be safeguarded against loss from unauthorized acquisition, use or disposal; and

- No new current year reportable instances of noncompliance with the laws and regulations were noted.

The following sections outline each of these conclusions in more detail.

We have audited the accompanying balance sheets of NRC as of September 30, 2003 and 2002, and the related statements of net cost, statements of changes in net position, statements of budgetary resources, and statements of financing for the fiscal years then ended. These financial statements are the responsibility of NRC's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and OMB Bulletin No. 01-02. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material

misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

MATTERS OF EMPHASIS

Classification of Costs

OMB Bulletin 01-09, *Form and Content of Agency Financial Statements*, provides guidance to Federal agencies for presenting program costs classified by intragovernmental and public components. The basis for classification relies on the concept of who received the benefits of the costs incurred (e.g. private sector licensees versus Federal licensees) rather than who was paid. However, following the advice of OMB, NRC classified the costs on the Statement of Net Cost using an underlying concept of who was paid. Furthermore, OMB Bulletin 01-09 requires that the Statement of Net Cost be presented using full program costs by output. The agency presents its costs aggregated by mission-related strategic arenas, which are comprised of NRC's programs.

U.S. Department of Energy Expenses

NRC's principal statements include reimbursable expenses of the U.S. Department of Energy (DOE) National Laboratories. NRC's Statements of Net Cost include approximately $73.1 and $54.5 million, respectively for the years ended September 30, 2003 and 2002, of reimbursed expenses. Our audits included testing these expenses for compliance with laws and regulations within NRC. The work placed with DOE is under the auspices of a Memorandum of Understanding between NRC and DOE. The examination of DOE National Laboratories for compliance with laws and regulations is DOE's responsibility. This responsibility was further clarified by a memorandum of the General Accounting Office's (GAO) Assistant General Counsel, dated March 6, 1995, where he opined that "...DOE's inability to assure that its contractors' costs [National Laboratories] are legal and proper...does not compel a conclusion that NRC has failed to comply with laws and regulations." DOE also has the cognizant responsibility to assure audit resolution and should provide the results of its audits to NRC.

In our opinion, the financial statements referred to above and included in the NRC's performance and accountability report, present fairly, in all material respects, the financial position of NRC at September 30, 2003 and 2002, and its net cost, changes in net position, budgetary resources, and reconciliation of net cost to budgetary resources for the fiscal years then ended in conformity with accounting principles generally accepted in the United States of America.

REPORT ON MANAGEMENT'S ASSERTION ABOUT THE EFFECTIVENESS OF INTERNAL CONTROL

We have examined management's assertion, as of September 30, 2003, that NRC's systems of accounting and internal control are in compliance with the internal control objectives listed in OMB Bulletin No. 01-02. he Bulletin requires management to establish internal accounting and administrative controls to provide reasonable assurance that transactions are properly recorded, processed, and summarized to permit the preparation of the financial statements in accordance with accounting principles generally accepted in the United States of America and that assets be safeguarded against loss from unauthorized acquisition, use or disposal. NRC's management is responsible for maintaining effective internal control over financial reporting. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA); the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Bulletin No. 01-02. Accordingly, we obtained an understanding of the internal control over financial reporting, tested and evaluated the design and operating effectiveness of internal control, and performed such other procedures as we considered necessary in the circumstances. e believe that our examination provides a reasonable basis for our opinion.

Because of inherent limitations in any internal control, misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of internal control over financial reporting to future periods are subject to the risk that the internal control may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

In our opinion, management's assertion that NRC maintained effective internal control over financial reporting as of September 30, 2003, is fairly stated, in all material respects based on the internal control objectives listed in OMB Bulletin No. 01-02.

However, we noted certain matters involving the internal control and its operation that we consider to be reportable conditions under standards established by the AICPA and OMB Bulletin No. 01-02. A reportable condition is a matter coming to our attention relating to significant deficiencies in the design or operation of the internal control that, in our judgment, could adversely affect the agency's ability to meet the internal control objectives described above. We identified three reportable conditions; NRC needs to (1) strengthen controls to protect its information systems' security access; (2) improve monitoring over accounting for internal use software; and (3) sustain cost accounting reporting system improvements.

A material weakness, as defined by the AICPA and OMB Bulletin No. 01-02, is a reportable condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the principal financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We believe that the reportable conditions that follow are not material weaknesses as defined by the AICPA and OMB Bulletin No. 01-02.

Information Systems Security Access

GAO's *Standards for Internal Control in the Federal Government* provide for agencies to design management controls to promote the reliability of the financial and performance information. Inherent to the design of such controls is the reduction of potential risks to the agency.

During our review of the agency's information security environment, we noted exceptions in two of the agency's seven financial management systems. The issues identified indicate weaknesses in the agency's management controls. The conditions, which are not discussed in this report with specificity because of their sensitivity, relate to the improper design of management controls affecting:

- Lack of proper maintenance and oversight of system user profiles, which resulted in assignment of incompatible duties; and
- Lack of compliance with agency policy (Management Directive No. 12.5, *NRC Automated Information Security Program*) for software password security authentication.

These issues were discussed at length with agency information system managers. The agency initiated corrective actions and is presently undergoing a thorough operational and security review of the exceptions in order to build a more robust security system.

Recommendation

The CFO should develop policies and procedures to ensure that changes impacting user profiles are analyzed fully by system administrators for compatibility of duties. Additionally, the CFO should periodically review software enabled system controls to ensure compliance with agency policy.

Monitoring of Accounting for Internal Use Software

As reported in FY 2002, the Federal Accounting Standards Advisory Board issued Statement of Federal Financial Accounting Standards (SFFAS) No. 10, *Accounting for Internal Use Software,* effective October 1, 2000. SFFAS No. 10 defines three software life-cycle phases: planning, development and operations. Paragraph 16 requires, "For internally developed software, capitalized cost should include the full cost (direct and indirect cost) incurred during the development phase." The Statement defines full cost to include salaries of programmers, project managers, administrative personnel, and associated employee benefits and outside consultants' fees.

Our assessment during FY 2002, noted that the OCFO did not have proactive monitoring procedures to identify projects that had begun or completed the development phase. The GAO's *Standards for Internal Control in the Federal Government* state, "Internal control should generally be designed to assure that ongoing monitoring occurs in the course of normal operations."

In the current fiscal year, the management control structure continued to rely heavily on project managers to inform the OCFO of time and costs expended in the software development phase. However, the OCFO has not fully addressed execution of existing monitoring procedures to ensure the completeness or reasonableness of the information provided.

Our review of the agency's practices for accounting for internal use software projects, identified the following inconsistencies:

1. Contractor costs incurred on projects were not being routinely captured and capitalized;
2. Contractor costs were not being recorded correctly;
3. Project managers were not coding their time appropriately during the development phase of their projects;
4. Indirect charges to the project were not being tracked, thus understating the cost of development; and
5. Labor certifications were not being completed, signed and/or were being completed late.

These exceptions continue to indicate that the agency does not have a routine, timely and disciplined process in place to monitor the adequacy of accounting information necessary to capitalize internal use software projects.

Recommendation

The CFO should reassess the accounting activities being undertaken by agency personnel to ensure the completeness and propriety of accounting transactions. Additionally, the CFO should be more proactive in monitoring and training project managers to instill discipline which provides reliability of financial information.

Managerial Cost Accounting

In FY 1998, we identified the lack of compliance with the implementation of SFFAS No. 4, *Managerial Cost Accounting Concepts and Standards.* The NRC's CFO responded to the condition by developing a remediation plan to implement cost accounting. During FY 2002, the agency made progress by issuing preliminary reports to managers, and by initiating a dialogue with agency managers on the adequacy and usefulness of the reports provided. In May 2002, the CFO asserted completion of the remediation actions and implemented a cost accounting system.

Although the agency made progress in FY 2002, the cost accounting reporting system did not meet the requirements of SFFAS No. 4. Furthermore, the system did not contain fundamental management controls as required by the Joint Financial Management Improvement Program (JFMIP) guidelines. During FY 2002, we reported the condition as both a material weakness and an FFMIA substantial noncompliance, prompting the CFO to develop and implement remediation actions to address continuing challenges.

In the current year, the agency successfully achieved a redesign of the cost accounting system and enhanced the documentation of controls and operating procedures. As a result, the material weakness and FFMIA substantial noncompliance were adequately addressed. The corrective actions, however, occurred late in the fiscal year. Consequently, the improved system controls and related processes were in place an insufficient amount of time, thereby precluding our assessment of the effectiveness of design and operation of related controls for the entire fiscal year. We were, however, able to apply sufficient procedures to the output from the system to assess the reliability and completeness of the information used for the statement of net cost.

Examples of the cost accounting implementation actions include: (1) development of user and operations guides enhancing the processing protocols of the system; (2) completion of an electronic audit trail tool to both document the audit trail from the general ledger to the statement of net cost, and to eliminate manual processes; and (3) redefining outputs, in compliance with SFFAS No. 4, as programs rather than program accomplishments (i.e. activities).

Recommendation

The CFO should sustain the management controls over cost accounting with the same focus demonstrated at year-end. As the cost accounting processes become more routine, refinements may be needed. For example, effective in FY 2004, quarterly reports will be required 21 days after the quarter's end, thus necessitating the current process to produce cost accounting information for financial reporting sooner. We believe that continued senior management attention will yield additional benefits in future periods.

Status of Prior Year Comments

In the prior year, we included conditions related to external reporting and the agency's close-out processing procedures. Corrective actions implemented have closed the comment on external reporting. In the current fiscal year, however, the agency's actions on contract close-out procedures were not adequate. Continued analysis of the process in place and development and implementation of improved policy will be necessary prior to closing the comment.

REPORT ON COMPLIANCE WITH LAWS AND REGULATIONS

We conducted our audit for the year ended September 30, 2003, in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, and OMB Bulletin No. 01-02.

NRC management is responsible for complying with laws and regulations applicable to the agency. As part of obtaining reasonable assurance about whether the agency's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of applicable regulations, noncompliance with which could have a direct and material effect on the determination of financial statement amounts and certain other laws and regulations specified in OMB Bulletin No. 01-02, including the requirements of the Federal Financial Management Improvement Act (FFMIA) of 1996. We limited our tests of compliance to these provisions and we did not test compliance with all laws and regulations applicable to NRC. The results of our tests of compliance disclosed no noncompliance with laws and regulations that are required to be reported under *Government Auditing Standards* or OMB Bulletin No. 01-02.

U.S. Department of Energy Expenses

NRC's principal statements include reimbursable expenses of the U.S. Department of Energy (DOE) National Laboratories. RC's Statements of Net Cost include approximately $73.1 and $54.5 million, respectively for the years ended September 30, 2003 and 2002, of reimbursed expenses. Our audits included testing these expenses for compliance with laws and regulations within NRC. The work placed with DOE is under the auspices of a Memorandum of Understanding between NRC and DOE. The examination of DOE National Laboratories for compliance with laws and regulations is DOE's responsibility. This responsibility was further clarified by a memorandum of the GAO's Assistant General Counsel, dated March 6, 1995, where he opined that "...DOE's inability to assure that its contractors' costs [National Laboratories] are legal and proper...does not compel a conclusion that NRC has failed to comply with laws and regulations." DOE also has the cognizant responsibility to assure audit resolution and should provide the results of its audits to NRC.

The objective of our audit of the financial statements was not to provide an opinion on overall compliance with such provisions of laws and regulations and, accordingly, we do not express such an opinion.

A noncompliance issue reported in prior years reports continues to be unresolved. pecifically, this issue addresses the following condition:

Part 170 Hourly Rates

As previously reported from FY 1998 through 2002, the Omnibus Budget Reconciliation Act (OBRA) of 1990 requires the NRC to recover approximately 100 percent of its budget authority by assessing fees. (The recovery percentage has been reduced in recent years by 2 percent each year. During FY 2003, the recovery percentage was 94 percent.) Accordingly, NRC assesses two types of fees to its licensees and applicants. One type, specified in 10 CFR Part 171, consists of annual fees assessed to power reactors, materials and other licensees. The other type, specified in 10 CFR Part 170 and authorized by the Independent Offices Appropriation Act of 1952, is assessed for specific licensing actions, inspections and other services provided to NRC's licensees and applicants.

Each year, the OCFO computes the hourly rates used to charge for Part 170 services. Consistent with OBRA of 1990, the rates are based on budgetary data and are used to price individually identifiable Part 170 services. The FY 1998 and subsequent years' rates were developed using the budgetary basis without validating the fee amounts to the full cost of providing Part 170 services.

The CFO has been awaiting the implementation of cost accounting to fully address this condition. During the final quarter of FY 2003, the agency achieved compliance with SFFAS No.4 regarding cost accounting. Therefore, we anticipate that during FY 2004 the agency will address this noncompliance.

We continue to encourage the agency to reassess the approach used in previous analyses provided for review and to refine the process and the cost elements to a level that will achieve comparability. Until an analysis is completed, documented and available for additional audit follow-up, the recommendation related to this condition cannot be closed.

INTERNAL CONTROL RELATED TO PERFORMANCE MEASURES

With respect to internal controls related to performance measures described in Chapter 2 of the performance and accountability report, the OIG performed those procedures and will address this issue separately. Our procedures were not designed to provide assurance over reported performance measures, and, accordingly, we do not provide an opinion on such information.

CONSISTENCY OF OTHER INFORMATION

Our audit was conducted for the purpose of forming an opinion on the financial statements of NRC taken as a whole. The required supplementary information included on page 110 and the management discussion and analysis (Chapter 1 of this Performance and Accountability Report) is not a required part of the financial statements but is supplementary information required by OMB Bulletin No. 01-09. We have applied certain limited procedures which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

The other accompanying information included in the appendixes is presented for purposes of additional analysis and are not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the financial statements of NRC taken as a whole. The required supplementary information, Schedule of Budgetary Resources, included on page 110 of this Performance and Accountability Report, is not a required part of the financial statements but is supplementary information required by OMB Bulletin No. 01-09. This information is also presented for purposes of additional analysis of the financial statements rather than to present the budgetary resources of the NRC programs. This information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

VIEWS OF RESPONSIBLE OFFICIALS

Our draft report was provided to the Chief Financial Officer on November 18, 2003, to facilitate discussion at our November 20, 2003, exit conference. At the exit conference the CFO, OIG and OCFO representatives discussed all issues in the report and potential opportunities for corrective actions. The Chief Financial Officer responded to our report on November 26, 2003, and generally agreed with the conditions identified. The corrective actions provided in the CFO's response appear appropriate and will be reviewed for implementation in subsequent audits.

This report is intended solely for the information and use of the management and Inspector General of NRC, OMB, and Congress and is not intended to be and should not be used by anyone other than these specified parties.

November 20, 2003

R. Navarro & Associates, Inc.

Management's Response to Auditors' Report

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 26, 2003

MEMORANDUM TO: Stephen D. Dingbaum
Assistant Inspector General for Audits

FROM: Jesse L. Funches
Chief Financial Officer *for*

SUBJECT: DRAFT AUDIT REPORT - AUDIT OF THE FY 2003 FINANCIAL STATEMENTS

I have reviewed the draft audit report of the agency's FY 2003 Financial Statements, dated November 18, 2003. Our responses to the three recommendations follow.

Recommendation 1

The CFO should develop policies and procedures to ensure that changes impacting user profiles are analyzed fully by system administrators for compatibility of duties. Additionally, the CFO should periodically review software enabled system controls to ensure compliance with agency policy.

Response

Agree. The CFO will issue guidance for system administrators to ensure that changes impacting user profiles are analyzed by system administrators for compatibility of duties. Guidance will be issued by June 1, 2004. We will also complete reviews of software-enabled system controls annually, as required by the Federal Information Security Management Act. However, based on discussions with the NRC's Senior IT Security Officer, we do not agree with the statement on page 3 of the draft report that: "The conditions . . . relate to the improper design of management controls affecting: . . . lack of compliance with agency policy (Management Directive No. 12.5, *NRC Automated Information Security Program*) for software password security authentication." NRC management has elected to accept the low residual risk associated with certain minor departures from MD 12.5. The low residual risk associated with these minor departures is, according to the Office of the Chief Information Officer, compliant with MD 12.5.

Recommendation 2

The CFO should reassess the accounting activities being undertaken by agency personnel to ensure the completeness and propriety of accounting transactions. Additionally, the CFO should be more proactive in monitoring and training project managers to install discipline which provides reliability of financial information.

CONTACT: Barbara K. Gusack, OCFO/DFM/FSRT
415-6054

S. D. Dingbaum -2-

Response

Agree. The CFO will modify its current procedures for monitoring approved software development projects to ensure more proactive monitoring and training of project managers and monitoring of accounting activities. Revised procedures will be issued by January 15, 2004.

Recommendation 3

The CFO should sustain the management controls over cost accounting with the same focus demonstrated at year-end. As the cost accounting processes become more routine, refinements may be needed. For example, effective in FY 2004, quarterly reports will be required 21 days after the quarter's end, thus necessitating the current process to produce cost accounting information for financial reporting sooner. We believe that continued senior management attention will yield additional benefits in future periods.

Response

Agree.

cc: D. Galik, OCIO
W. Dean, AO/OEDO
M. Malloy, OEDO
P. Tressler, OEDO

PRINCIPAL STATEMENTS

For the years ended September 30, 2003 and 2002

Limitations of the Financial Statements

The principal statements have been prepared to report the financial position and results of operations of the NRC, pursuant to the requirements of the Chief Financial Officers Act of 1990, as amended by the Government Management Reform Act of 1994. These statements have been prepared from the books and records of the NRC in accordance with the formats prescribed by the Office of Management and Budget. However, these statements differ from the financial reports used to monitor and control budgetary resources that are prepared from the same books and records. The principal statements should be read with the realization that they are for a sovereign entity, liabilities not covered by budgetary resources cannot be liquidated without the enactment of an appropriation, and the payment of all liabilities other than for contracts can be abrogated by the sovereign entity. Other limitations are included in the footnotes to the principal statements.

The NRC's FY 2003 financial statements were audited by R. Navarro and Associates, under contract to the NRC's Office of the Inspector General.

Principal Statements

BALANCE SHEET
(Dollars in Thousands)

As of September 30,	2003	2002
Assets		
Intragovernmental		
Fund balances with Treasury (Note 2)	$ 193,420	$ 181,449
Accounts receivable (Note 3)	2,667	2,031
Other	2,933	1,141
Total intragovernmental	199,020	184,621
Cash and other monetary assets	20	20
Accounts receivable, net (Note 3)	47,563	42,774
Property and equipment, net (Note 4)	29,622	36,922
Other	19	20
Total Assets	$ 276,244	$ 264,357
Liabilities		
Intragovernmental		
Accounts payable	$ 7,399	$ 8,411
Other (Notes 5 and 6)	57,084	49,157
Total intragovernmental	64,483	57,568
Accounts payable	19,937	19,996
Federal employees benefits (Note 6)	9,073	9,062
Other liabilities (Note 5)	41,106	49,869
Total Liabilities	134,599	136,495
Net Position		
Unexpended appropriations	150,317	128,336
Cumulative results of operations (Note 8)	(8,672)	(474)
Total Net Position	141,645	127,862
Total Liabilities and Net Position	$ 276,244	$ 264,357

The accompanying notes to the principal statements are an integral part of this statement.

Principal Statements

STATEMENT OF NET COST

(Dollars in Thousands)

For the year ended September 30,	2003	2002
Nuclear Reactor Safety		
Intragovernmental gross costs	$ 121,024	$ 102,729
Less: Intragovernmental earned revenue	(25,984)	(22,914)
Intragovernmental net costs	95,040	79,815
Gross costs with the public	280,195	259,855
Less: Earned revenues from the public	(437,155)	(383,157)
Net costs with the public	(156,960)	(123,302)
Total Net Cost of Nuclear Reactor Safety	(61,920)	(43,487)
Nuclear Materials Safety		
Intragovernmental gross costs	22,270	21,956
Less: Intragovernmental earned revenue	(4,510)	(4,748)
Intragovernmental net costs	17,760	17,208
Gross costs with the public	67,947	64,852
Less: Earned revenues from the public	(51,688)	(43,375)
Net costs with the public	16,259	21,477
Total Net Cost of Nuclear Materials Safety	34,019	38,685
Nuclear Waste Safety		
Intragovernmental gross costs	24,780	22,107
Less: Intragovernmental earned revenue	(1,726)	(1,762)
Intragovernmental net costs	23,054	20,345
Gross costs with the public	68,858	66,609
Less: Earned revenues from the public	(14,305)	(14,793)
Net costs with the public	54,553	51,816
Total Net Cost of Nuclear Waste Safety	77,607	72,161
International Nuclear Safety Support		
Intragovernmental gross costs	4,951	4,782
Less: Intragovernmental earned revenue	(510)	(329)
Intragovernmental net costs	4,441	4,453
Gross costs with the public	11,103	9,470
Less: Earned revenues from the public	(1,604)	(2,034)
Net costs with the public	9,499	7,436
Total Net Cost of International Nuclear Safety Support	13,940	11,889
Net Cost of Operations	$ 63,646	$ 79,248

The accompanying notes to the principal statements are an integral part of this statement.

Principal Statements

STATEMENT OF CHANGES IN NET POSITION

(Dollars in Thousands)

For the year ended September 30,	2003		2002	
	Cumulative Results of Operations	Unexpended Appropriations	Cumulative Results of Operations	Unexpended Appropriations
Beginning Balances	$ (474)	$ 128,336	$ 6,693	$ 86,980
Budgetary Financing Sources				
Appropriations received	-	560,084	-	535,430
Appropriations transferred-in/out	-	(499,120)	-	(448,676)
Other adjustments	-	(219)	-	(430)
Appropriations used	38,764	(38,764)	44,968	(44,968)
Non-exchange revenue	624	-	1,354	-
Transfers-in/out without reimbursement	(624)	-	(1,354)	-
Other Financing Sources				
Imputed financing from costs absorbed by others	21,978	-	18,780	-
Other	(5,294)	-	8,333	-
Total Financing Sources	55,448	21,981	72,081	41,356
Net Cost of Operations	(63,646)	-	(79,248)	-
Ending Balances	$ (8,672)	$ 150,317	$ (474)	$ 128,336

The accompanying notes to the principal statements are an integral part of this statement.

Principal Statements

STATEMENT OF BUDGETARY RESOURCES

(Dollars in Thousands)

For the year ended September 30,	2003	2002
Budgetary Resources		
Budget authority		
Appropriations received	$ 560,084	$ 535,430
Net transfers	24,738	23,650
Unobligated balances		
Beginning of period	37,346	26,747
Spending authority from offsetting collections		
Reimbursements earned	5,337	5,845
Change in unfilled customer orders	2,928	201
Total Spending Authority from Offsetting Collections	8,265	6,046
Recoveries of prior year obligations	7,386	4,634
Permanently not available	(219)	(430)
Total Budgetary Resources	$ 637,600	$ 596,077
Status of Budgetary Resources		
Obligations incurred (Note 12)		
Direct	$ 590,978	$ 553,083
Reimbursable	6,050	5,648
Unobligated balance		
Apportioned	39,812	36,179
Exempt from apportionment	760	1,167
Total Status of Budgetary Resources	$ 637,600	$ 596,077
Relationship of Obligations to Outlays		
Obligated balance, net, beginning of period	$ 136,899	$ 104,988
Obligated balance, net, end of period		
Accounts receivable	(598)	(539)
Unfilled customer orders from Federal sources	(8,028)	(1,788)
Undelivered orders	110,082	88,346
Accounts payable	37,767	50,880
Obligated balance, net, end of period	$ 139,223	$ 136,899
Outlays		
Disbursements	$ 581,020	$ 522,314
Collections	(6,677)	(6,175)
Subtotal	574,343	516,139
Less: Offsetting Receipts	(526,273)	(475,965)
Net Outlays	$ 48,070	$ 40,174

The accompanying notes to the principal statements are an integral part of this statement.

Principal Statements

STATEMENT OF FINANCING

(Dollars in Thousands)

For the year ended September 30,	2003	2002
Resources Used to Finance Activities		
Budgetary Resources Obligated		
Obligations incurred (Note 12)	$ 597,028	$ 558,731
Less: Spending authority from offsetting collections and recoveries	(15,651)	(10,680)
Obligations Net of Offsetting Collections and Recoveries	581,377	548,051
Less: Offsetting receipts	(526,273)	(475,965)
Net Obligations	55,104	72,086
Other Resources		
Imputed financing from costs absorbed by others	21,978	18,780
Allocation transfer	1,576	3,375
Other	(5,294)	8,333
Net Other Resources Used to Finance Activities	18,260	30,488
Total Resources Used to Finance Activities	73,364	102,574
Resources Used to Finance Items not Part of the Net Cost of Operations		
Change in budgetary resources obligated for goods, services and benefits ordered but not yet provided	(17,916)	(30,493)
Resources that finance the acquisition of assets	(4,106)	(2,476)
Other	592	364
Total Resources Used to Finance Items not Part of the Net Cost of Operations	(21,430)	(32,605)
Total Resources Used to Finance the Net Cost of Operations	51,934	69,969
Components of the Net Cost of Operations that will not Require or Generate Resources in the Current Period		
Components Requiring or Generating Resources in the Future Periods		
Increase in annual leave liability	1,692	1,870
Increase (Decrease) actuarial workers' compensation	11	(1,787)
Increase (Decrease) in unfunded workers' compensation	(163)	28
Increase in unfunded unemployment	7	22
Total Components of Net Cost of Operations that will Require or Generate Resources in Future Periods	1,547	133
Components not Requiring or Generating Resources:		
Depreciation and amortization	10,165	9,146
Total Components not Requiring or Generating Resources	10,165	9,146
Total Components of Net Cost of Operations that will not Require or Generate Resources in the Current Period	11,712	9,279
Net Cost of Operations	$ 63,646	$ 79,248

The accompanying notes to the principal statements are an integral part of this statement.

NOTES TO PRINCIPAL STATEMENTS

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting Entity

The U.S. Nuclear Regulatory Commission (NRC) is an independent regulatory agency of the Federal Government that was created by the U.S. Congress to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of the public health and safety, to promote the common defense and security, and to protect the environment. Its purposes are defined by the Energy Reorganization Act of 1974, as amended, along with the Atomic Energy Act of 1954, as amended, which provide the foundation for regulating the Nation's civilian use of nuclear materials.

The NRC operates through the execution of its congressionally approved appropriations for salaries and expenses and the Inspector General, including funds derived from the Nuclear Waste Fund. In addition, transfer appropriations are provided by the U.S. Agency for International Development for the development of nuclear safety and regulatory authorities in Russia, Ukraine, Kazakhstan, and Armenia for the independent oversight of nuclear reactors in these countries.

B. Basis of Presentation

These principal statements were prepared to report the financial position and results of operations of the NRC as required by the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994. These financial statements were prepared from the books and records of the NRC in conformity with accounting principles generally accepted in the United States of America, the requirements of Office of Management and Budget (OMB) Bulletin No. 01-09, *Form and Content of Agency Financial Statements,* and NRC accounting policies. These statements are, therefore, different from the financial reports, also prepared by the NRC pursuant to OMB directives, which are used to monitor and control NRC's use of budgetary resources. NRC has not presented a Statement of Custodial Activity because the amounts involved are immaterial and incidental to its operations and mission.

The strategic arenas as presented on the Statement of Net Cost are based on the strategic plans and are described as follows:

Nuclear Reactor Safety which encompasses all NRC efforts to ensure that civilian nuclear power reactor facilities, as well as test and research reactors, are operated in a manner that adequately protects public health and safety and the environment, and that safeguards special nuclear materials used in reactors.

Nuclear Materials Safety which encompasses NRC efforts to ensure that nuclear fuel cycle facilities; and academic, industrial, and medical uses of nuclear materials are handled in a manner that adequately protects public health and safety and the environment, and protects against radiological sabotage and theft or diversion of special nuclear materials.

Nuclear Waste Safety which encompasses NRC efforts to ensure that the decommissioning of nuclear reactors and other facilities, storage of spent nuclear fuel, transportation of radioactive materials, and disposal of radioactive wastes are handled in a manner that adequately protects public heath and safety and the environment, and protects against radiological sabotage and theft or diversion of special nuclear materials.

International Nuclear Safety Support which encompasses international nuclear safety and regulatory policy formulation, import-export licensing for nuclear materials and equipment, treaty implementation, and international information exchange.

C. Budgets and Budgetary Accounting

Budgetary accounting measures appropriation and consumption of budget/spending authority or other budgetary resources and facilitates compliance with legal constraints and controls over the use of Federal

funds. Under budgetary reporting principles, budgetary resources are consumed at the time of purchase. Assets and liabilities, which do not consume current budgetary resources, are not reported, and only those liabilities for which valid obligations have been established are considered to consume budgetary resources.

For the past 29 years, Congress has enacted no-year appropriations, which are available for obligation by NRC until expended. The Energy and Water Development Appropriations Act, 2003, requires the NRC to recover approximately 94 percent of its new budget authority of $584.6 million by assessing fees less amounts derived from the Nuclear Waste Fund of $24.7 million. The $584.6 million does not include any amounts transferred from the U.S. Agency for International Development. For FY 2002, NRC recovered approximately 96 percent of its new budget authority of $558.6 million less amounts derived from the Nuclear Waste Fund of $23.7 million and $36 million received from Homeland Security.

D. Basis of Accounting

Transactions are recorded on an accrual accounting basis. Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Interest on borrowings of the U.S. Treasury is not included as a cost to NRC's programs and is not included in the accompanying financial statements.

E. Revenues and Other Financing Sources

The NRC is required to offset its appropriations by the amount of revenues received during the fiscal year by assessing fees. The NRC assesses two types of fees to recover its budget authority: (1) fees assessed under 10 Code of Federal Regulations (CFR) Part 170 for licensing, inspection, and other services under the authority of the Independent Offices Appropriation Act of 1952 to recover the NRC's costs of providing individually identifiable services to specific applicants and licensees; and (2) annual fees assessed for nuclear facilities and materials licensees under 10 CFR Part 171. All fees, with the exception of civil penalties, are exchange revenues in accordance with Statement of Federal Financial Accounting Standards No. 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting*.

For accounting purposes, appropriations are recognized as financing sources (appropriations used) at the time expenses are accrued. At the end of the fiscal year, appropriations recognized are reduced by the amount of assessed fees collected during the fiscal year to the extent of new budget authority for the year. Collections which exceed the new budget authority are held to offset subsequent years' appropriations. Appropriations expended for property and equipment are recognized as expenses when the asset is consumed in operations (depreciation and amortization).

F. Fund Balances with Treasury and Cash and Other Monetary Assets

The NRC's cash receipts and disbursements are processed by the U.S. Treasury. The fund balances with the U.S. Treasury and cash are primarily appropriated funds that are available to pay current liabilities and to finance authorized purchase commitments. Funds with Treasury represent NRC's right to draw on the U.S. Treasury for allowable expenditures. All amounts are available to NRC for current use. Cash balances held outside the U.S. Treasury are not material.

G. Accounts Receivable

Accounts receivable consist of amounts owed to the NRC by other Federal agencies and the public. Amounts due from the public are presented net of an allowance for uncollectible accounts. The allowance is based on an analysis of the outstanding balances. Receivables from Federal agencies are expected to be collected; therefore, there is no allowance for uncollectible accounts.

H. Non-Entity Assets

Accounts receivable include non-entity assets of $44,000 and $27,000 at September 30, 2003, and 2002, respectively, and consist of miscellaneous penalties and interest due from the public, which, when collected, must be transferred to the U.S. Treasury.

I. Property and Equipment

Property and equipment consist primarily of typical office furnishings, nuclear reactor simulators, and computer hardware and software. The costs of internal use software include the full cost of salaries and benefits from agency personnel involved in software. The agency has no real property. The land and buildings in which NRC operates are provided by the General Services Administration (GSA), which charges NRC rent that approximates the commercial rental rates for similar properties.

Property with a cost of $50,000 or more per unit and a useful life of 2 years or more is capitalized at cost and depreciated using the straight-line method over the useful life. Other property items are expensed when purchased. Normal repairs and maintenance are charged to expense as incurred.

J. Accounts Payable

Accounts payable represent vendor invoices for services received by NRC that will be paid at a later date.

K. Liabilities Not Covered by Budgetary Resources

Liabilities represent the amount of monies or other resources that are likely to be paid by NRC as the result of a transaction or event that has already occurred. No liability can be paid by NRC absent an appropriation. Liabilities for which an appropriation has not been enacted and for which there is no certainty that an appropriation will be enacted are classified as Liabilities Not Covered by Budgetary Resources. Also, NRC liabilities arising from sources other than contracts can be abrogated by the Government acting in its sovereign capacity

Intragovernmental

The U.S. Department of Labor (DOL) paid Federal Employees Compensation Act (FECA) benefits on behalf of NRC which had not been billed or paid by NRC as of September 30, 2003, and 2002, respectively.

Federal Employee Benefits

Federal employee benefits represent the actuarial liability for estimated future FECA disability benefits. The future workers' compensation estimate was generated by DOL from an application of actuarial procedures developed to estimate the liability for FECA, which includes the expected liability for death, disability, medical, and miscellaneous costs for approved compensation cases. The liability was calculated using historical benefit payment patterns related to a specific incurred period to predict the ultimate payments related to that period. These projected annual benefit payments were discounted to present value. The interest rate assumptions utilized for discounting benefits were 3.84 percent for FY 2003 and 5.20 percent for FY 2002.

Other

Accrued annual leave represents the amount of annual leave earned by NRC employees but not yet taken.

L. Contingencies

Contingent liabilities are those where the existence or amount of the liability cannot be determined with certainty pending the outcome of future events. The NRC is a party to various administrative proceedings, legal actions, environmental suits, and claims brought by or against it. Based on the advice of legal counsel concerning contingencies, it is the opinion of management that the ultimate resolution of these proceedings, actions, suits, and claims will not materially affect the agency's financial statements.

M. Annual, Sick, and Other Leave

Annual leave is accrued as it is earned and the accrual is reduced as leave is taken. Each year, the balance in the accrued annual leave liability account is adjusted to reflect current pay rates. To the extent that current or prior year funding is not available to cover annual leave earned but not taken, funding will be obtained from future financing sources. Sick leave and other types of nonvested leave are expensed as taken.

N. Retirement Plans

NRC employees belong to either the Federal Employees Retirement System (FERS) or the Civil Service Retirement System (CSRS). For FY 2003 and FY 2002, employees belonging to FERS, the NRC withheld 0.8 percent of base pay earnings, in addition to Federal Insurance Contribution Act (FICA) withholdings, and matched the withholdings with a 10.7 percent contribution. The sum is transferred to the Federal Employees Retirement Fund. For employees covered by CSRS, NRC withholds 7 percent of base pay earnings. The NRC matched this withholding with a 7 percent in FY 2003 and an 8.51 percent contribution in FY 2002.

The Thrift Savings Plan (TSP) is a retirement savings and investment plan for employees belonging to either FERS or CSRS. For employees belonging to FERS, NRC automatically contributes one percent of base pay to their account and matches contributions up to an additional four percent. The maximum percentage of base pay that an employee participating in FERS may contribute is 13 percent in calendar year (CY) 2003, and 12 percent in CY 2002. Employees belonging to CSRS may contribute up to 8 percent of their salary in CY 2003, and 7 percent in CY 2002, but there is no NRC matching of the contribution. The maximum amount that either FERS or CSRS employees may contribute to the plan is $12,000 in the CY 2003 portion of FY 2003 and $11,000 in the CY 2002 portion of FY 2003. The sum of the employees' and NRC's contributions are transferred to the Federal Retirement Thrift Investment Board.

The NRC does not report on its financial statements FERS and CSRS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting such amounts is the responsibility of the U.S. Office of Personnel Management. The portion of the current and estimated future outlays for CSRS not paid by NRC is, in accordance with Statement of Federal Financial Accounting Standards No. 5, *Accounting for Liabilities of the Federal Government*, included in NRC's financial statements as an imputed financing source.

O. Leases

The total capital lease liability is funded on an annual basis and included in NRC's annual budget. The NRC's capital leases are for personal property consisting of reproduction equipment which is installed in various NRC facilities. For FY 2003 and 2002, the leases were for 3 and 5 years and the interest rates paid were 6.59 percent and 4.75 percent, respectively. During FY 2004, the remaining capital lease (3 years at 6.59 percent) will be completed. The reproduction equipment is depreciated over 5 years using the straight-line method with no salvage value.

Operating leases consist of real property leases with GSA. The leases are for NRC's headquarters and regional offices. The GSA charges NRC lease rates which approximate commercial rates for comparable space.

P. U.S. Department of Energy Charges

Financial transactions between the Department of Energy (DOE) and NRC are fully automated through the U.S. Treasury's Intra-Governmental Payment and Collection (IPAC) System. The IPAC System allows DOE to collect amounts due from NRC directly from NRC's account at the U.S. Treasury for goods and/or

services rendered. Project manager verification of goods and/or services received is subsequently accomplished through a system-generated voucher approval process. The vouchers are returned to the Office of the Chief Financial Officer documenting that the charges have been accepted.

Q. Pricing Policy

The NRC provides goods and services to the public and other Government entities. In accordance with OMB Circular No. A-25, *User Charges*, and the Independent Offices Appropriation Act of 1952, NRC assesses fees under 10 CFR Part 170 for licensing and inspection activities to recover the full cost of providing individually identifiable services.

The NRC's policy is to recover the full cost of goods and services provided to other Government entities where: (1) the services performed are not part of its statutory mission and (2) NRC has not received appropriations for those services. Fees for reimbursable work are assessed at the 10 CFR Part 170 rate with minor exceptions for programs that are nominal activities of the NRC.

R. Net Position

The NRC's net position consists of unexpended appropriations and cumulative results of operations. Unexpended appropriations represent appropriated spending authority that is unobligated and has not been withdrawn by Treasury, and obligations that have not been paid. Cumulative results of operations represent the excess of financing sources over expenses since inception.

S. Use of Management Estimates

The preparation of the accompanying financial statements in accordance with generally accepted accounting principles requires management to make certain estimates and assumptions that directly affect the results of reported assets, liabilities, revenues, and expenses. Actual results could differ from these estimates.

NOTE 2. FUND BALANCES WITH TREASURY

(In Thousands)	2003	2002
Fund Balances		
Appropriated funds	$ 184,487	$174,226
Allocation transfers	5,183	6,941
Other fund types	3,750	282
Total	$ 193,420	$ 181,449
Status of Fund Balance with Treasury		
Unobligated Balance		
Available		
Appropriated funds	$ 40,572	$ 37,346
Allocation transfers	2,948	1,809
Unavailable	4,063	612
Obligated balance not yet disbursed	145,837	141,682
Total	$ 193,420	$181,449

NOTE 3. ACCOUNTS RECEIVABLE

(In thousands)	2003	2002
Intragovernmental		
Receivables and reimbursements	$ 2,667	$ 2,031
Receivables with the Public		
Materials and facilities fees - billed	$ 4,657	$ 4,166
Materials and facilities fees - unbilled	45,607	41,185
Other (Penalties and Interest)	110	94
Total Accounts Receivable	50,374	45,445
Less: Allowance for uncollectible accounts	(2,811)	(2,671)
Accounts Receivable, Net	$ 47,563	$ 42,774

NOTE 4. PROPERTY AND EQUIPMENT, NET

(In thousands)

Fixed Assets Class	Service Years	Acquisition Value	Accumulated Depreciation and	2003	2002
Equipment	5-8	$ 15,891	$ (14,129)	$ 1,762	$ 1,996
ADP software	5	40,961	(25,651)	15,310	23,718
ADP software under development	-	2,318	-	2,318	390
Leasehold improvements	20	20,294	(10,141)	10,153	10,703
Leasehold improvements in progress		79	-	79	115
		$ 79,543	$ (49,921)	$ 29,622	$ 36,922

NOTE 5. OTHER LIABILITIES

(In thousands)	2003	2002
Intragovernmental		
Liability to offset net accounts receivable for fees assessed	$ 49,492	$ 44,177
Liability from fees collected which will offset subsequent year's appropriations	3,590	-
Liability to offset miscellaneous accounts receivable	42	27
Liability for advances from other agencies	1,222	845
Accrued workers' compensation	1,646	1,809
Accrued unemployment compensation	29	22
Employee benefit contributions	1,063	2,277
Total Intragovernmental Other Liabilities	$ 57,084	$ 49,157

The liability to offset the net accounts receivable for fees assessed represents amounts which, when collected, will be transferred to the U.S. Treasury to offset NRC's appropriations in the year collected.

(In thousands)	2003	2002
Accrued annual leave	$ 30,035	$28,343
Accrued salaries	8,138	18,092
Contract holdbacks, advances, and other	2,933	3,434
Total Other Liabilities	$ 41,106	$49,869

Other liabilities, except accrued annual leave, contract holdbacks, and advances from others, are current.

NOTE 6. LIABILITIES NOT COVERED BY BUDGETARY RESOURCES

(In thousands)	2003	2002
Intragovernmental		
FECA paid by DOL	$ 1,646	$ 1,809
Accrued unemployment compensation	29	22
Federal Employee Benefits		
Future FECA	9,073	9,062
Other		
Accrued annual leave	30,035	28,343
Total Liabilities not Covered by Budgetary Resources	$ 40,783	$39,236

NOTE 7. LEASES

(In thousands)
Future Lease Payments Due:

Fiscal Year	Capital	Operating	2003	2002
2003	$ -	$ -	$ -	$ 20,493
2004	2	20,505	20,507	20,507
2005	-	20,372	20,372	20,372
2006	-	19,560	19,560	19,560
2007	-	19,603	19,603	19,603
2008 and thereafter	-	111,600	111,600	112,891
Total	2	191,640	191,642	213,426
Less: imputed interest		-	-	-2
Total Future Lease Payments	$ 2	$ 191,640	$ 191,642	$213,424

NOTE 8. CUMULATIVE RESULTS OF OPERATIONS

(In thousands)	2003	2002
Future funding requirements	$ (40,783)	$ (39,236)
Investment in property and equipment, net	29,622	36,922
Contributions from foreign cooperative research agreements	2,481	1,819
Other	8	21
Cumulative Results of Operations	$ (8,672)	$ (474)

Future funding requirements represent the amount of future funding needed to pay the accrued unfunded expenses as of September 30, 2003, and 2002. These accruals are not funded from current or prior-year appropriations and assessments, but rather should be funded from future appropriations and assessments. Accordingly, future funding requirements have been recognized for the expenses that will be paid from future appropriations.

NOTE 9. EXCHANGE REVENUES

(In thousands)	2003	2002
Fees for licensing, inspection, and other services	$ 531,567	$467,632
Revenue from reimbursable work	5,915	5,480
Total Exchange Revenues	$ 537,482	$473,112

NOTE 10. BUDGET FUNCTIONAL CLASSIFICATION

(In thousands)

Functional Classification	Gross Cost	Earned Revenue	2003 Net Cost	2002 Net Cost
276- Energy Information, Policy, & Regulation	$ 596,788	$ 537,411	$ 59,377	$76,707
150- AID International Affairs	4,340	71	4,269	2,541
Total	$ 601,128	$ 537,482	$ 63,646	$79,248

Intragovernmental

Functional Classification	Gross Cost	Earned Revenue	2003 Net Cost	2002 Net Cost
276 - Energy Information, Policy, & Regulation	$ 168,685	$ 32,659	$ 136,026	$ 119,280
150 - AID International Affairs	4,340	71	4,269	2,541
Total	$ 173,025	$ 32,730	$ 140,295	$ 121,821

NOTE 11. FINANCING SOURCES OTHER THAN EXCHANGE REVENUE

(In thousands)

Appropriated Funds Used

Collections were used to reduce the fiscal year's appropriations recognized:

	2003	2002
Funds consumed	$ 565,037	$ 520,933
Less: collection from fees assessed	(526,273)	(475,965)
Appropriated funds used	$ 38,764	$ 44,968

Funds consumed include $39,767 thousand and $26,747 thousand through September 30, 2003, and 2002, respectively, of available funds from prior years.

Non-Exchange Revenue

	2003	2002
Civil penalties	$ 353	$ 453
Miscellaneous receipts	271	901
Total Non-Exchange Revenue	$ 624	$ 1,354

The miscellaneous receipts received during FY 2002 included approximately $554 thousand received from the Trust Estate of the Moab Mill Reclamation Trust Agreement. The receipts resulted from an agreement between the State of Utah and NRC where it was agreed that each party would receive 50 percent of the proceeds from the trust.

Imputed Financing

	2003	2002
Civil Service Retirement System	$ 11,588	$ 9,934
Federal Employee Health Benefit	9,832	8,788
Federal Employee Group Life Insurance	53	49
U.S. Treasury Judgment Fund	505	9
Total Imputed Financing	$ 21,978	$ 18,780

Transfers In/Out

	2003	2002
Transfers out to Treasury		
License Fees	$ 526,273	$ 475,965
Non-exchange revenue	624	1,354
Total Transfers-Out to Treasury	$ 526,897	$ 477,319

NOTE 12. TOTAL OBLIGATIONS INCURRED

(In thousands)

	2003	2002
Direct Obligations		
Category A	$ 565,784	$ 529,517
Exempt from Apportionment	25,194	23,566
Total Direct Obligations	590,978	553,083
Reimbursable Obligations	6,050	5,648
Total Obligations Incurred	$ 597,028	$ 558,731

Obligations exempt from apportionment are the result of funds derived from the Nuclear Waste Fund. Category A Obligations consist of NRC appropriations only.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF INTRAGOVERNMENTAL ASSETS AND LIABILITIES

(Dollars in Thousands) As of September 30,	2003	2002
Intragovernmental Assets		
Fund Balance with Treasury		
Department of the Treasury	$ 193,420	$ 181,449
Accounts Receivable		
Tennessee Valley Authority	1,844	1,197
Department of Energy	600	412
Other Agencies	223	422
Total Accounts Receivable	2,667	2,031
Other Assets		
General Services Administration	487	520
Department of Commerce	227	360
Department of Interior	664	1
Department of the Navy	1,495	19
Department of Labor	42	204
Other Agencies	18	37
Total Other Agencies	2,933	1,141
Total Intragovernmental Assets	$ 199,020	$ 184,621

As of September 30,	2003	2002
Intragovernmental Liabilities		
Accounts Payable		
General Services Administration	$ 953	$ 3,157
Department of Energy	5,851	4,500
Other Agencies	595	754
Total Accounts Payable	7,399	8,411
Other Liabilities		
Department of the Treasury - General Fund	53,082	44,177
Department of Labor	1,675	1,831
Office of Personnel Management	1,063	2,277
Other Agencies	1,264	872
Total Other Liabilities	57,084	49,157
Total Intragovernmental Liabilities	$ 64,483	$ 57,568

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF BUDGETARY RESOURCES

(Dollars in Thousands)

For the year ended September 30, 2003

	X0200	X0300	Total
Budgetary Resources			
Budget authority			
Appropriations received	$553,284	$ 6,800	$ 560,084
Net transfers	24,738	-	24,738
Unobligated balances			
Beginning of period	36,411	935	37,346
Spending authority from offsetting collections			
Reimbursements earned	5,336	1	5,337
Change in unfilled customer orders	2,928	-	2,928
Total Spending Authority from Offsetting Collections	8,264	1	8,265
Recoveries of prior year obligations	7,382	4	7,386
Permanently not available	(216)	(3)	(219)
Total Budgetary Resources	$629,863	$ 7,737	$ 637,600
Status of Budgetary Resources:			
Obligations incurred			
Direct	$584,462	$ 6,516	$ 590,978
Reimbursable	6,050	-	6,050
Unobligated balance			
Apportioned	38,591	1,221	39,812
Exempt from apportionment	760		760
Total Status of Budgetary Resources	$629,863	$ 7,737	$ 637,600
Relationship of Obligations to Outlays:			
Obligated balance, net, beginning of period	$135,968	$ 931	$ 136,899
Obligated balance, net, end of period:			
Accounts receivable	-597	-1	(598)
Unfilled customer orders from Federal sources	(8,028)	-	(8,028)
Undelivered orders	109,304	778	110,082
Accounts payable	37,472	295	37,767
Obligated balance, net , end of period	$138,151	$ 1,072	$ 139,223
Outlays:			
Disbursements	$574,637	$ 6,383	$ 581,020
Collections	(6,665)	(12)	(6,677)
Subtotal	567,972	6,371	574,343
Less: Offsetting receipts	(526,273)	-	(526,273)
Net Outlays	$ 41,699	$ 6,371	$ 48,070

Appendixes

APPENDIX A: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST SERIOUS MANAGEMENT CHALLENGES FACING NRC

November 5, 2003

MEMORANDUM TO: Chairman Diaz

FROM: Hubert T. Bell
Inspector General

SUBJECT: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST SERIOUS MANAGEMENT CHALLENGES FACING NRC
(OIG-04-A-01)

SUMMARY

On January 24, 2000, Congress enacted the *Reports Consolidation Act of 2000* to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. Included in the act is the requirement that the Inspector General of each Federal agency summarize what he or she considers to be the most serious management and performance challenges facing the agency and assess the agency's progress in addressing those challenges. In accordance with the *Reports Consolidation Act of 2000*, I am submitting my annual assessment of the major management challenges confronting the U.S. Nuclear Regulatory Commission (NRC). Also, included in my submission, is a listing of Office of the Inspector General (OIG) reports issued during fiscal year 2003. These reports address the challenges identified.

Congress left the determination and threshold of what constitutes a most serious management challenge to the discretion of the Inspectors General. As a result, I applied the following definition in preparing my statement:

> Serious management challenges are mission critical areas or programs that have the potential for a perennial weakness or vulnerability that, without substantial management attention, would seriously impact agency operations or strategic goals.

The most serious management challenges facing NRC may be, but are not necessarily, areas that are problematic for the agency. The challenges, as identified, represent critical areas or difficult tasks that warrant high-level management attention. This year, I identified nine management challenges that I consider to be the most serious.

DISCUSSION

The most serious management challenges that follow are not ranked in any order of prominence.

CHALLENGE 1

Protection of nuclear material used for civilian purposes.

Over the past fiscal year, NRC has been overseeing the implementation of enhanced security measures and determining the appropriate level of security needed to protect civilian nuclear power facilities. The Chairman has stated that he intends for NRC to continue to work with the Department of Homeland Security and other Federal agencies, as well as state and local law enforcement and emergency planning officials, to ensure an integrated approach to protecting these critical facilities.

NRC's requirements for nuclear plant security are based on the need to protect the public from exposure to radioactive release caused by acts of sabotage. Therefore, NRC has taken a number of steps to strengthen security at NRC-licensed facilities. These measures include issuing requirements to enhance training and address security personnel fatigue at nuclear reactor sites to increase capability to detect and respond to threats. NRC also required plants to enhance access controls to prevent unauthorized entry of persons to nuclear facilities. NRC continues to work on revising the design basis threat (DBT) for nuclear power plants. The DBT defines the threat against which these facilities must be capable of defending and provides a foundation for developing defensive response strategies that cover a variety of situations.

NRC has made two organizational changes to further strengthen its security response capabilities. In April 2002, NRC established the Office of Nuclear Security and Incident Response (NSIR) to consolidate NRC's security, safeguards, and incident response functions. This office restarted security exercises at operating nuclear power reactor facilities, which had been discontinued after September 11, 2001. The second organizational change made by the Executive Director for Operations (EDO) in June 2003 established the position of Deputy Executive Director for Homeland Protection and Preparedness. This new Deputy is responsible for working across agency lines of authority to resolve homeland protection and preparedness issues.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of NRC's Oversight of Research and Test Reactors
- Audit of NRC's Regulatory Oversight of Special Nuclear Materials
- Management Audits of NRC's Four Regional Offices

Investigations

- Adequacy of NRC Oversight Related to Reactor Vessel Leakage at Oconee and North Anna Nuclear Power Stations
- NRC Enforcement of Regulatory Requirements and Commitments at Indian Point, Unit 2

- NRC's Regulation of Davis-Besse Regarding Damage to the Reactor Vessel Head
- NRC's Regulatory Oversight Over the Control of Special Nuclear Material at Millstone Unit 1

CHALLENGE 2

Protection of information.

NRC employees generate and work on a considerable amount of information that is sensitive and needs to be protected. Such information can be sensitive unclassified information or classified national security information and is contained in written documents and in electronic databases. Recent OIG audits found that improvements were needed in the areas of administrative procedures, information technology controls, and physical security controls.

NRC has made various efforts to protect sensitive information from inappropriate disclosure. For example:

- Implementation of additional warning messages to the Agencywide Documents Access and Management System (ADAMS), NRC's electronic recordkeeping system which houses vast quantities of agency information. These messages are intended to prevent the release of sensitive documents or packages by reminding staff when such information is not intended for public release.
- Addition of a sensitivity warning message at the bottom of every page on the agency's internal Web site to remind staff that sensitive information should not be made publicly available.
- Revision of agency sensitive unclassified information and classified information cover sheets to include specific information on the appropriate handling and marking of the various categories of information.
- Issuing orders to licensees for panoramic and underwater irradiators to improve security. These orders added a new document designation/marking to protect safeguards information. This designation ("Safeguards Information — Modified Handling") is intended to clarify the handling requirements for safeguards information.
- Training provided by the Office of NSIR to all NRC employees on the handling of sensitive unclassified and classified information. In addition, NSIR offers a monthly refresher training course on the subject. Agency employees are also required annually to complete an online computer security awareness course.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Computer Security Review at NRC's Technical Training Center
- Computer Security Reviews at NRC's Region I, II, III, and IV
- Independent Evaluation of NRC's Implementation of the Federal Information Security Management Act for FY 2003
- Management Audits of NRC's Four Regional Offices
- Review of NRC's Handling and Marking of Sensitive Unclassified Information
- Use of E-Mail at NRC

CHALLENGE 3

Development and implementation of a risk-informed and performance-based regulatory oversight approach.

NRC faces numerous challenges in making its regulatory framework more risk-informed for nuclear power plants and nuclear material licensees. In April 2000, NRC implemented the Reactor Oversight Process (ROP) to move toward a more risk-informed regulatory philosophy that enhances safety decisionmaking, improves efficiency, and reduces resources devoted to issues with low safety significance. The ROP relies on a risk-informed inspection program to provide increased focus on specific aspects of plant performance that have the greatest impact on safe plant operation. The process focuses on seven specific cornerstones of safety: initiating events, mitigating systems, barrier integrity, emergency preparedness, public radiation safety, occupational radiation safety, and physical protection. The premise is that safety is maintained if the licensee performs acceptably in these cornerstones.

NRC is currently working to further its risk-informed approach by revising its nuclear plant regulations developed to ensure safe plant operations. To make the regulations more risk-informed, NRC needs to analyze the risks associated with any area subject to regulation to determine the appropriate level of regulatory emphasis. According to the agency, this approach will result in regulations that are more safety-focused and performance-based by focusing oversight on results rather than on prescriptive requirements.

NRC is also currently working to risk-inform its approach to regulating nuclear materials and waste. According to the EDO, the implementation of a risk-informed approach to this area has led to an improved focus on safety and a reduction of unnecessary regulatory burden. The EDO maintains that the agency has successfully used the risk-informed approach to improve efficiency and effectiveness while maintaining safety in several areas. These changes include the integrated safety analysis review, byproduct materials inspections, and spent nuclear fuel transportation and storage. There also is an ongoing agency effort to examine the materials licensing and certification programs to identify opportunities for improvement.

According to the NRC Chairman, NRC has made progress over the past 10 years in implementing risk-informed regulation, however, the agency still has a long way to go to fully implement the process. He anticipates that risk-informed regulation will continue to be a major area of focus for NRC.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of NRC's Oversight of Research and Test Reactors
- Management Audits of NRC's Four Regional Offices

Investigations

- Improper Influence by NRC Staff on Results of NIST Test
- NRC Regulation of Davis-Besse Regarding Damage to the Reactor Vessel Head

CHALLENGE 4

Ability to modify regulatory processes to meet changing external demands.

NRC faces numerous challenges related to the changing regulatory and business environment. The increased demand for electric power has created challenges pertaining to such areas as reactor license renewals, license amendment requests to increase reactor power output, new plant designs, and high-level waste disposal. The agency is also striving to ensure its readiness to deal with applications for new plants.

Reactor License Renewal

The improved performance of nuclear power plants over the past decade has caused many of NRC's licensees to consider renewing their licenses rather than decommissioning their plants when the licenses expire. Approximately half of the operating nuclear reactor units in the U.S. are currently involved in some stage of the license renewal process. To regulate this activity, NRC established a license renewal inspection program to verify information submitted in the renewal applications. This program also includes an agency safety evaluation and environmental impact analysis.

Applications To Increase Power Output

As of April 2003, NRC had completed reviews of 92 requests from licensees to increase reactor power output. NRC staff estimate that over the next 5 years, NRC will receive an additional 35 such requests. These requests involve complex, technical issues and NRC's review of the application to ensure safe operation. NRC considers the request as a high priority that requires input from many technical areas of the agency. A number of these reviews have been completed more quickly than the agency's estimate of 18 months needed to accomplish the task.

New Plant Designs

New proposals for nuclear power plant design are emerging with the maturation of the nuclear power industry. Numerous reactor designs have been submitted for NRC review; three are being actively pursued at this time. According to the EDO, the staff is making infrastructure improvements to ensure that tools, information, and regulatory processes are in place for the efficient, effective, and realistic review of these applications and to ensure that an appropriate level of safety is maintained.

High-Level Waste

According to the Nuclear Waste Policy Act, the Department of Energy (DOE) has the responsibility to locate, build, and operate a repository for high level nuclear waste, while NRC has the responsibility to establish regulations over this facility. NRC expects to receive an application next year from DOE for a permit to construct a permanent repository for high-level waste at Yucca Mountain in Nevada and has begun review preparations. NRC anticipates that the administrative proceeding to assess the repository will be an enormous undertaking because many documents will need review in a 3-year time frame. One significant challenge for NRC is ensuring that all parties and decisionmakers have timely access to filings and exhibits.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Management Audits of NRC's Four Regional Offices

Investigations

- Unlawful Interaction Between NRC and DOE Staffs Regarding Yucca Mountain

CHALLENGE 5

Acquisition and implementation of information resources.

Federal agencies' acquisition and implementation of information resources are crucial to (1) support critical mission-related operations and (2) provide more effective and cost-efficient Government services to the public. The necessary link of information technology to NRC's mission performance makes it important to have decisionmaking processes assure that funds are invested and managed to achieve high value outcomes at acceptable costs. NRC relies on a wide variety of information systems to help it fulfill its responsibilities and support its business flow. NRC, like other Federal agencies, continues to struggle in its effort to obtain a good return on these investments. In recent years, NRC has created large databases of publicly available information including ADAMS, the Licensing Support Network (LSN), and the NRC Web site. NRC also has issued a final rule to clarify when and how external stakeholders may use electronic means to communicate with the agency.

ADAMS

ADAMS, an NRC electronic recordkeeping system, maintains official records of the agency. Implemented in April 2000, the system continues to pose concerns for NRC. In January 2003, NRC modified the public's ability to access ADAMS by instituting a Web-based interface with search capabilities. According to the agency's Chief Information Officer, this new Web-based interface is a significant step forward in NRC's efforts to support the Governmentwide electronic Government (E-Gov) initiative. NRC also implemented the ADAMS Legacy and Public Legacy Libraries, which contain more than 2 million bibliographic citations describing documents dated prior to November 1, 1999.

LSN

NRC's LSN is a public database developed in response to a congressional mandate that NRC assess DOE's application to build a high-level radioactive waste repository at Yucca Mountain in a 3-year time frame. To expedite the exchange of documents in NRC's licensing proceeding, the parties will make their documents available via the Internet before the DOE license application is submitted to NRC. The LSN provides a single place where the parties can search for documents from any/all of those collections in a uniform way. The challenge facing NRC will be to ensure that all potential parties have reliable access to this large database of documents.

Internal Web Site

NRC redesigned its internal Web site to improve delivery of information. Changes include links to Network Announcements issued to staff from the agency and a comprehensive agency telephone directory.

E-Rule

NRC is issuing its final rule, "Electronic Maintenance and Submission of Information" (E-rule), and a related guidance document. These documents clarify when and how licensees, applicants, vendors, external entities, and other members of the public may use electronic means to communicate with the agency. The rule, expected to become effective in January 2004, modifies numerous provisions in NRC's regulations to allow for voluntary electronic submission of documents in lieu of paper. The guidance document includes the required procedures for corresponding with NRC by CD-ROM, e-mail, facsimile (fax), or by using the agency's Electronic Information Exchange to exchange electronic documents in a secure manner and in a secure Web environment.

The E-rule provides NRC with an opportunity to modernize its business processes to improve technology. For example, the E-rule eliminates most of the paper and multiple copy requirements traditionally imposed on individuals submitting information and will allow submitters to provide one copy in most cases. In addition, the guidance document requires that electronic files be submitted in Portable Document Format (PDF) and that very large files be submitted in segments so that they can be more easily captured in ADAMS and viewed and downloaded by the public via the Internet.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of NRC's Regulatory Oversight of Special Nuclear Materials
- Follow-up Review of NRC's Internet Usage
- Independent Evaluation of NRC's Implementation of the Federal Information Security Management Act for FY 2003
- Management Audits of NRC's Four Regional Offices
- Use of E-mail at NRC

Investigations

- Misuse of NRC Computers to Access Inappropriate Material

CHALLENGE 6

Administration of all aspects of financial management.

NRC must be a prudent steward of its fiscal resources through sound financial management. Sound financial management includes the production of timely, useful, and reliable financial information to support agency management; an effective cost accounting system; well-developed strategic planning; and an integrated method for planning, budgeting, and assessing performance to better enable NRC to align programs with outcomes. Sound financial management also includes how an agency procures goods and services. Procurements must be made in accordance with Federal regulations and with an aim to achieve the best value for the agency's dollars. Without effective management controls, the procurement process is susceptible to fraud, waste, and abuse.

FY 2002 was the ninth consecutive year for which NRC received an unqualified audit opinion on its financial statements. The FY 2002 Independent Auditors' *Report on Management's Assertion about the Effectiveness of Internal Control* disclosed that four reportable conditions were carried forward into FY 2003, and that two prior years' reportable conditions were closed. One of the reportable conditions that was carried forward to FY 2003, which is also a material weakness, relates to the lack of full compliance with the Statement of Federal Financial Accounting Standards No. 4, *Managerial Cost Accounting Concepts and Standards*. Significant progress continues to tighten controls over financial management processes. For example, NRC hired a consulting firm to assist the agency to more fully address the challenges associated with managerial cost accounting.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Audit of NRC's Fiscal Year 2002 Financial Statements
- Independent Auditor's Report - Close-Out Audit of GSE Power Systems, Inc.
- Management Audits of NRC's Four Regional Offices
- Review of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2002
- Review of NRC's Purchase Order Processing

Investigations

- Early Retirement Under False Pretenses
- Fraudulent Travel Claim by NRC Employee
- Misuse of NRC Full Share (Transportation Subsidy) Program

CHALLENGE 7

Communication with external stakeholders throughout NRC regulatory activities.

To maintain public trust and confidence, NRC must be viewed as an independent, open, efficient, clear, and reliable regulator. To this end, the agency needs to provide its diverse group of external stakeholders (e.g., the Congress, general public, other Federal agencies, industry, and citizen groups) with clear, accurate, and timely information about, and a meaningful role in, NRC's regulatory process. This is a challenging task because of the highly technical nature of NRC's operations, the sensitivity of its information, and the balance the agency must maintain to remain independent.

NRC has a performance goal to increase public confidence, yet the agency has not developed a method to measure its success in this area. The challenge for NRC is to afford all stakeholders, including the public, with appropriate and meaningful access to its regulatory process. This access must be provided in a committed, stipulated, consistent, timely, and unambiguous manner that fosters confidence in the agency. At the same time, the agency is also faced with the responsibility of protecting sensitive security and safeguards information from unauthorized access.

In June 2003, the Chairman created a task force to develop strategies for comprehensive and effective communications with external stakeholders. An August 2003 task force report stated that there must be clear demonstration of NRC's values in everything NRC communicates and does. The task force determined that NRC's effectiveness in communicating with its stakeholders varies and that while, in many cases, the agency is communicating reasonably well with its stakeholders, there is room for significant improvement. The task force made 10 recommendations to NRC to improve its external communications.

To provide integrated leadership and direction for external communications, the Chairman established the position of Director of Communications, to report directly to his office. The Communications Director is responsible for enhancing the effectiveness of NRC's communications with the public, the media, and the Congress in support of the agency's strategic goals.

NRC also implemented a strategy to enhance public participation through the three types of NRC meetings open to the public. Category 1 meetings invite the public to observe the business portion of the meeting. Members of the public are afforded an opportunity to communicate with NRC after the business portion of the meeting. Category 2 and 3 meetings allow more opportunities for the public to ask questions and comment. NRC officials created a page on its external Web site which provides information on these three categories as well as public meeting feedback forms. The officials also created a public meeting checklist to provide staff with the guidance and the tools to plan and conduct successful public meetings.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits
- Audit of NRC's Regulatory Oversight of Special Nuclear Materials
- Management Audits of NRC's Four Regional Offices

Investigations
- Unlawful Interaction Between NRC and DOE Staffs Regarding Yucca Mountain

CHALLENGE 8

Intra-agency communication (up, down, and across organizational lines).

Internal communication is a fundamental and necessary aspect of conducting agency business. NRC needs effective internal communication channels and methods to support its critical health and safety mission. Information is the key resource that links managers with staff, the organization, and other internal stakeholders, enabling them to do their work cooperatively and efficiently in a coordinated manner. According to the Chairman, effective internal communication is essential for improving NRC's performance as a regulatory body. Results from OIG's Safety Culture and Climate Survey, issued agencywide in December 2002, showed that a majority of NRC employees believe the agency has not established a climate where traditional ways of doing things can be challenged or innovative ideas can fail without penalty.

NRC has implemented various actions to improve its internal communications over the past year. In response to the Safety Culture and Climate Survey findings, NRC established a safety culture and climate task force to work on improving communications internally. This task force issued a report with recommendations to the agency on how to address communications issues. The agency continues to use the electronic "EDO Updates," a type of communication between the EDO and the entire staff. NRC also recently redesigned its internal Web site to facilitate information access and service delivery. In addition, NRC continues to use the All Employees Meeting as an important and effective tool for direct two-way communication between the Commission and agency employees. NRC's draft strategic plan also addresses the importance of internal communication on achieving the agency's mission and performance goals.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Follow-up Review of NRC's Internet Usage
- Management Audits of NRC's Four Regional Offices
- OIG's 2002 Survey of NRC's Safety Culture and Climate

CHALLENGE 9

Managing human capital.

NRC must have a dynamic, diverse workforce with the appropriate knowledge, skills, and abilities to achieve its public health and safety mission. NRC has identified human capital management as a major challenge and a potential high-risk area. The demands include declining workforce numbers, institutional knowledge, and critical skills; new workforce demographic trends (e.g., aging workforce); and increasing market competition for a shrinking labor pool. Thirty percent of the Federal workforce will be eligible to retire in 5 years and an additional 20 percent could seek early retirement. This does not mean that 50 percent of Government employees will retire in the short-term, but that agencies must start planning for the workforce in the future.

The Office of Human Resources (HR) developed an agencywide set of strategic human capital management initiatives to mitigate the expected loss of personnel with the technical competencies necessary to sustain the accomplishment of NRC mission requirements. Some of these initiatives include early replacement hiring, recruitment bonuses, undergraduate fellowship programs, and the Senior Executive Service candidate

development program. NRC also strives to ensure that 20 percent of new employees are hired into entry level positions. NRC also recently designated a Chief Human Capital Officer to advise and assist with NRC's workforce planning.

HR and the program offices are working together to identify where gaps will exist and develop strategies, such as increased recruiting efforts and training budgets, that will maintain the offices' core scientific and technical capacities. NRC has also created a program that emphasizes the core skills, or competencies, related to supervising and managing staff. With these efforts, NRC believes that it will successfully identify its critical skill needs and hire, develop, motivate, and retain the employees who possess the skills needed to support the agency's strategic goals and outcomes.

RELATED OFFICE OF THE INSPECTOR GENERAL WORK

Audits

- Management Audits of NRC's Four Regional Offices

CONCLUSION

One of OIG's strategic goals is to identify opportunities for improvement in NRC's programs, operations, and corporate management. The Inspector General's identification of the most serious management challenges facing the agency and the work of the OIG staff helps achieve this goal. Furthermore, as evidenced by this review, the agency has already taken some steps to address the management challenges.

While the nine challenges identified in this report are distinct, they are also interdependent. By continuing to address these challenges through planning and in day-to-day operations, NRC can further enhance its efforts to successfully meet its public health and safety mission. To emphasize the importance I place on these concerns for the agency, I have prepared and distributed to all employees a pocket-sized card listing these major NRC management challenges.

cc: Commissioner McGaffigan
Commissioner Merrifield

APPENDIX B: MANAGEMENT'S ACTIONS TO ADDRESS MAJOR CHALLENGES

Protection of nuclear material and facilities used for civilian purposes

The NRC has assigned a high priority to reexamining current security measures to ensure adequate protection of nuclear material and facilities. FY 2003, the agency assessed the potential vulnerabilities of civilian nuclear facilities and activities to identify any necessary modifications to existing strategies. The agency coordinated this assessment with counterparts in the Homeland Security Council, DHS, FBI, DOE, Defense Threat Reduction Agency, and other agencies.

The NRC's comprehensive assessment of the security and safeguards of NRC-licensed nuclear facilities and activities resulted in the following significant improvements in FY 2003:

(1) The NRC revised the design basis threat (DBT) against which power plants and selected fuel cycle facilities must be able to defend. The agency also issued a variety of orders to require specific security enhancements for a variety of nuclear facilities and activities. Together with the revised DBT, these enhancements represent a significant step in security planning, which is consistent with the current threat environment.

(2) In collaboration with the DHS, DOE, and other agencies, the NRC assessed the potential use of radioactive sources in RDDs and identified necessary enhancements in the control of radioactive sources. The NRC also worked with the Homeland Security Council to develop and introduce related security legislation to Congress.

(3) The NRC expanded and strengthened communications security by developing a new secure Web site on a protected Web server. This site enables the NRC to communicate threat information to agency licensees, as well as State and Federal officials who are authorized to access the site. The NRC also developed a Threat Advisory and Protective Measures System, which the agency activated four times during FY 2003. Through this system, the NRC promptly advises affected licensees to execute appropriate protective measures when the DHS changes the national threat level under the Homeland Security Advisory System.

(4) In FY 2003, the NRC substantially increased 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. In February 2003, the Commission established an expanded force-on-force exercise pilot program. As a direct result of these efforts, our partners have effectively responded to investigate potential threats in order to protect nuclear power plants and other facilities and materials that are licensed by the NRC. The force-on-force exercises have been and are intended to be a primary means to conduct performance-based testing of a licensee's security force and its ability to prevent radiological sabotage.

Development and implementation of an appropriate risk-informed and performance-based approach to regulatory oversight

For many years, the NRC has developed and adapted methods for undertaking probabilistic risk assessments and performance assessments to enable the agency to better understand the risks associated with licensed activities. During FY 2003, the NRC built on those methods by supporting the development of calculation tools and experimental results to provide the basis for risk-informed regulation. Risk-informed regulation is a decision-making approach that uses risk analysis, along with engineering studies, to focus regulatory and licensee attention on design and operational issues in a manner that is commensurate with the risks that those issues pose to public health and safety. Incorporating risk analysis into regulatory decisions improves the regulatory process by

focusing NRC and licensee attention and activities on the areas of highest risk, thereby reducing the burden on licensees, and increasing the efficiency and effectiveness of agency resources.

Given the clear benefits of risk-informed regulation, the NRC's FY 2000–FY 2005 Strategic Plan states that a key to achieving the agency's strategic and performance goals is to continue to develop and implement risk-informed and performance-based practices in the NRC's regulatory processes. To further its goal of broadly applying risk techniques to the agency's regulatory processes, the Commission has developed a risk-informed regulatory implementation plan. This is of such importance that the NRC has included milestones for further implementing the risk-informed regulatory implementation plan as a performance measure in working toward the goal to make the agency's activities and decisions more effective, efficient, and realistic. During FY 2003, the NRC has taken actions across the agency to meet this challenge, as described below:

Nuclear Reactor Safety: During FY 2003, the NRC assessed stakeholder feedback and reviewed annual assessments to evaluate the agency's success in implementing its revised Reactor Oversight Process (ROP). The assessments continue to show that the revised ROP has resulted in a more objective, risk-informed, and predictable regulatory process. The risk-informed ROP has also focused NRC and licensee resources on aspects of plant performance that have the greatest impact on safe plant operation.

During FY 2003, the NRC continued to develop technical information to support possible changes to the agency's emergency core cooling system requirements and acceptance criteria, as well as additional guidance on how risk analyses should be used in regulatory decisionmaking. In addition, the NRC drafted and obtained stakeholder feedback on a proposed rule regarding special treatment requirements. (Special treatment refers to requirements that the NRC imposes on structures, systems, and components, which exceed industry-established requirements for equipment that is classified as commercial grade). The extra requirements defined in the proposed rule provide additional confidence that the affected equipment can meet its functional requirements under design-basis conditions. Specifically, the rule establishes risk-informed categorization and treatment of structures, systems and components. In so doing, it allows licensees to request approval to implement alternative requirements for inspection, testing, maintenance, and quality assurance (among other activities), based upon their safety significance. The NRC published this rulemaking on May 16, 2003, in order to solicit public comment.

In addition, the NRC has been considering revisions to requirements related to large-break loss-of-coolant accidents (LOCAs), and associated emergency core cooling performance and analysis requirements. In March 2003, the Commission decided to proceed with a number of activities, including developing LOCA frequency estimates, preparing a proposed rule to allow use of an alternative maximum break size, and preparing a proposed rule to allow elimination of the assumption of coincident loss of offsite power with a LOCA. The rule revisions and associated plant changes would have to meet specified acceptance criteria for risk-informed decisions.

Nuclear Materials Safety: Over the past year, the NRC made significant progress toward increasing the use of risk insights and information where feasible and beneficial. Toward that end, the agency is currently developing guidance documents and risk guidelines to facilitate consistent and effective application of the risk-informed approach.

During FY 2003, the NRC began reviewing integrated safety analysis (ISA) summaries for individual fuel facility license amendment requests. (These ISA reviews are one aspect of the NRC's implementation of the revised regulations in 10 CFR Part 70 which increases the use of risk information for fuel cycle facilities). In reviewing the ISA summaries for these amendment requests, the agency used a risk-informed approach. In addition, the NRC began to implement its revised fuel cycle oversight program, which focuses on risk-informed regulations associated with the revised Part 70. As such, this program includes risk-informed inspections, evaluation of the

risk-significance of facility events and inspection findings, more effective and predictable enforcement and assessment of licensee performance, and enhanced communication with stakeholders.

In FY 2003, the NRC also published a revised 10 CFR Part 35, "Medical Use of Byproduct Material." This rule provides a more risk-informed, performance-based approach to the regulation of medical licensees. As a complement to the revised regulations, the NRC also published Volume 9 of the "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licenses." That guidance supports implementation of regulations for licensing medical uses of byproduct material under 10 CFR Part 35 in a more risk-informed and performance-based manner. In addition, the agency relied on risk insights from NUREG/CR-6642, "Risk Analysis and Evaluation of Regulatory Options for Nuclear Byproduct Material Systems," in reevaluating the NRC's inspection priorities.

The NRC continues to incorporate lessons learned into guidance development, in order to enable the agency to consistently and effectively apply the risk-informed approach where appropriate. For example, during FY 2003, the NRC updated its plans to risk-inform materials regulatory processes to reflect successes and lessons learned in implementation.

Nuclear Waste Safety: In resolving the key technical issues associated with the potential high-level waste (HLW) repository at Yucca Mountain, Nevada, NRC employs a regulatory approach that considers risk insights from a systems perspective based upon performance assessment. The agency ensures that reviews are graded, based on their significance to repository performance. The following paragraphs summarize several representative NRC efforts to incorporate risk insights into the agency's reviews.

In FY 2003, the NRC issued the final version of the YMRP. The YMRP describes how the NRC will review DOE's license application against the requirements in 10 CFR Part 63. To the extent practical, the YMRP is risk-informed and performance-based.

The NRC continues to implement the risk insights initiative, which will help focus regulatory activities and support risk-informed decisionmaking during the prelicensing and licensing phases of the repository program. Toward that end, in FY 2003, the NRC developed a risk insights baseline and a risk significance-ranked listing of the NRC-DOE agreements to address key technical issues concerning the proposed repository. As part of this effort, the NRC generated a broad ranking of the anticipated effort and technical difficulty for each agreement. The NRC is currently integrating the risk insights baseline and agreement rankings into other HLW program activities, such as the issue resolution process and the development of inspection procedures.

In addition, the NRC undertook risk-informing initiatives in the decommissioning program. For example, during FY 2003, Nuclear Waste Safety completed a multi-year effort to update and consolidate the current decommissioning guidance, while making it more risk-informed and performance-based, by publishing NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volumes 1–3. The NRC also evaluated the power reactor decommissioning inspection program and made improvements to better focus resources on power reactor sites where significant decommissioning activities are occurring.

In FY 2003, the NRC also completed a revised draft pilot probabilistic risk assessment (PRA) on dry cask storage with a specific design. These PRA studies provide a method for quantifying the risks of dry cask storage of spent nuclear fuel and provide insights for decisionmaking and improved regulatory activities associated with 10 CFR Part 72. In addition, in FY 2003, the NRC updated its risk assessment for a dry cask storage system to reflect peer review.

Clear and balanced communication with external stakeholders

Building and maintaining public trust and confidence is an important NRC goal, which appears among the performance goals for the agency. An important contributor to increasing public confidence in the NRC is providing stakeholders clear and accurate information about, and a meaningful role in, the agency's regulatory programs. Toward that end, the NRC conducted two major public outreach training sessions for its employees. The NRC also hosted a general meeting on public involvement issues for stakeholders in July 2003. The NRC also undertook a variety of activities to address this challenge, as described in the following paragraphs.

Nuclear Reactor Safety: During FY 2003, the NRC developed and implemented an array of plans governing communications on such topics as the issuance of an order to conduct reactor vessel head inspections at pressurized-water reactors (PWRs), generic letter on control room habitability, and bulletins on PWR sump blockage and lower vessel head inspections.

The License Renewal Program conducted 22 public meetings on environmental issues associated with the continued operation of nuclear power plants. These meetings afforded the NRC the opportunity to solicit stakeholder viewpoints. They also allowed for a meaningful exchange of information with external stakeholders on the potential environmental effects of continued operation. The NRC held these meetings in the vicinity of those affected by its actions.

The NRC also held 12 public outreach meetings on issues surrounding the reactor vessel head degradation at the Davis-Besse Nuclear Power Station and the NRC's related response and evaluation. These meetings informed external stakeholders about the status of the NRC's oversight activities and gave citizens the opportunity to comment and ask questions. The NRC also held public meetings in the vicinity of each nuclear power plant during FY 2003. These meetings provided external stakeholders with information on the NRC's annual assessment of each plant's safety performance and the agency's role in ensuring safe operation. In addition, in anticipation of the receipt of three early site permit applications for future nuclear power plants, the NRC conducted five public outreach meetings in the communities potentially affected by these actions. These meetings enabled the NRC to inform the communities of the agency's regulatory role and its process for evaluating early site permit applications.

Nuclear Materials Safety: During FY 2003, the NRC coordinated with DOE on several projects. In particular, these projects included the MOX fuel facility, the potential for NRC (external) regulation of DOE non-defense laboratories, and gas centrifuge uranium enrichment issues.

The NRC's Fuel Facilities Licensing and Inspection Program conducted 44 public meetings concerning significant regulatory issues. These meetings gave the NRC the opportunity to solicit stakeholder viewpoints and provided stakeholders with the opportunity to exchange information on a variety of issues including the MOX licensing initiative and the Nuclear Fuel Services' blended low enriched uranium (BLEU) amendment. Most of these meetings took place in the vicinity of those affected.

During FY 2003, the NRC also held a public meeting held to discuss the training and experience requirements for recognition of specialty board certifications related to the medical use of byproduct materials. The NRC also held a public roundtable meeting with the regulated radiopharmaceutical industry in January 2003. This meeting addressed policy and guidance issues related to extremity monitoring and dosimetry, including assessment of the shallow dose equivalent to the portion of the skin on the extremity likely to receive the highest dose. Attendees included industry stakeholders, Agreement State representatives, and NRC representatives from headquarters and the regional offices. The NRC also worked closely with the States to ensure a cooperative dialogue concerning the regulation of radioactive material. The NRC participated in the Organization of Agreement States

meeting in October 2002. The NRC also sent representatives to the Conference of Radiation Control Program Directors meeting in May 2003. In addition, the NRC held a series of meetings and workshops with Agreement States and large panoramic irradiator licensees to help develop risk-informed, efficient, and effective compensatory measures to provide additional security for the large irradiator sources. These interactions included four workshops that provided an opportunity for the NRC to train States and licensee personnel to train on the requirements for handling safeguards information and sensitive unclassified information.

In FY 2003, the NRC also worked to develop a generic communication plan for rulemakings. The primary goal of this plan is to ensure that the NRC conveys a consistent message to all internal and external stakeholders. The NRC also published a *Federal Register* notice requesting written comments and held a public workshop to solicit additional stakeholder input on controlling disposition of solid materials.

In addition, the NRC maintains a Web site to facilitate communication with stakeholders. This site provides a variety of links to pertinent documents, updates on current activities, and information on opportunities for stakeholder input. The NRC has also developed a new Web site to communicate questions and answers that will help stakeholders implement the revised medical regulations in Part 35. This site provides licensing guidance for various medical modalities, the Guide for Diagnostic Nuclear Medicine promulgated by the Society for Nuclear Medicine, and a direct link to the NRC's Sealed Source and Device Registry.

Nuclear Waste Safety: During FY 2003, NRC met with elected officials, members of the public, and other representatives from the State of Nevada and several counties to address health and safety issues associated with a possible licensing decision on the proposed HLW repository at Yucca Mountain. The NRC also provided an overview of the agency's role in the potential licensing of the repository, with specific presentations on associated groundwater, transportation, and security issues at two public meetings in California.

The NRC also conducted four public workshops and "town hall" meetings with interested stakeholders, including Federal, State, and local elected officials, and the general public. These sessions addressed the public's growing interest in the safety of spent fuel transportation by providing a forum for discussion concerning the draft test protocols for the Package Performance Study. Other related public outreach activities dealt with radioactive material transportation issues. These activities included workshops, conferences, and town hall meetings with representatives of various Federal, State, and local agencies; international bodies; the nuclear industry; and public interest groups.

The NRC also held public meetings with interested stakeholders at sites and facilities that are undergoing decommissioning. Specifically, these facilities included the West Valley Demonstration Project, in West Valley, New York; the Big Rock Point Nuclear Plant in Charlevoix, Michigan; and Cabot Corporation's Revere site in Bucks County, Pennsylvania.

The NRC also developed and implemented communications plans to enhance public outreach concerning sites identified in the NRC's Site Decommissioning Management Plan (SDMP). In addition, the NRC continued to implement the Spent Fuel Transportation Communication Plan, which provides a focused approach for public outreach and communication related to spent fuel transportation.

Internal communication

Early in FY 2003, the NRC Inspector General conducted a review of the most serious management challenges facing the agency. In that report, the NRC was found to have made progress in expanding its methods for communicating within the organization.

The Inspector General also conducted a survey on NRC's internal safety culture in early FY 2003. In that survey, the NRC's score for communication compared favorably to the U.S. Government Research and Technology Composite. Nevertheless, a few key areas for improvement in internal communication were identified, including keeping employees informed about matters affecting the agency and creating a climate where it is safe to speak up with differing opinions.

The EDO formed a safety culture task force to conduct a systematic assessment of the key areas for improvement identified in the report, including those relating to communication. Although several of the task force's recommendations are still under review, many have already been implemented.

Communication plans are developed to emphasize important topics that need to be communicated externally and internally. The agency has also emphasized efficient meeting policies, promoted team-building and supported intraoffice efforts to share important information across the agency.

The NRC internal Web has been redesigned, a major effort involving all offices. This effort is to make information available to NRC that will aid them in performing their duties in more efficiently and effectively. Individual offices will continue developing and updating their own individual web pages linked to the internal home page.

A Communications Council is being formed which will plan, coordinate and implement NRC internal communications strategies, and share best practices that add value across the agency.

Internal NRC communications have increased. More offices are periodically issuing internal electronic newsletters. EDO updates have been developed, and memoranda are issued on a variety of internal communications subjects. Also, some individual offices have undergone detailed internal communication studies. These activities have included administering surveys, holding focus groups, and creating methods for collecting internal feedback.

General good communications practices have been emphasized with managers. These practices include face-to-face communications, frequent feedback, and two-way communications. New leadership courses will seek to emphasize these practices and stress coaching and team-building. In addition, many offices have created their own communications positions or teams, tasked with addressing stakeholder concerns, fostering good internal and external communications practices and addressing related policy matters.

The NRC's safety mission is being reinforced through e-mails, messages on the internal Web page, posters, memoranda, and other media. Managers are being asked to emphasize that all performance goals support safety because they allow NRC and licensees to focus their attention on those activities most important to safety. They will also reinforce the linkage between NRC's daily activities and the agency's safety mission.

Regulatory processes that are integrated and continue to meet the NRC's safety mission in a changing environment

The NRC uses itsPBPM process to integrate the agency's regulatory processes and ensure that the agency is able to respond to changes in its environment. Each year, the Program Review Committee holds planning sessions to ensure that the Commission's regulatory processes are integrated and resources allocated where needed. The Commission approves these plans during the budget process. In addition, the Executive Director for Operations holds meetings to ensure integration across NRC programs.

NRC issues regulations that are considered necessary to provide assurance that licensees operate their reactor facilities in a safe manner and the goals are met to protect public health and safety. Any rule imposing requirements needs a backfit analysis (per 10 CFR 50.109 - Backfit Rule) either justifying that the requirements

are necessary for adequate protection or are cost-beneficial safety enhancements. Regulatory actions reflecting this during FY 2003 have included Performance-Based Risk-Informed Fire Protection, §§50.69 - Risk-Informing 10 CFR Part 50, Option 2 (Special Treatment Requirements), and Risk-Informed 50.44 Rulemaking.

Quarterly meetings of the Probabilistic Risk Assessment Steering Committee ensure that risk-informed activities are integrated across the agency. Similarly, the participation of NRC managers on the Research Effectiveness Review Board ensures that the agency's research program effectively meets agencywide needs.

The NRC also relies on a Risk Steering Committee, which provides guidance and sets expectations for the Risk Task Group, with regard to implementing risk-informed initiatives in Nuclear Materials and Waste Safety. The committee is comprised of agency experts who offer guidance in risk-informing initiatives. These experts also provide peer review of risk-informed products.

In addition, the NRC's Rulemaking Coordinating Committee (RCC), established in 1998, ensures that the agency's rulemaking process remains consistent throughout the NRC. The primary focus of the RCC is to ensure consistency in methods used to develop and promulgate rules and to facilitate initiatives for improving all aspects of the rulemaking process.

During FY 2003, work continued in preparation for receipt of DOE's anticipated HLW repository license application and the associated hearings. This cooperative effort involves putting the systems and processes in place to fulfill the 3-year mandate.

The NRC issued a final rule amending the event notification requirements in 10 CFR Part 72, as they relate to independent spent fuel storage installations (ISFSIs) and monitored retrievable storage installation (MRSIs). These changes reduce licensee burden by consolidating certain notifications and lengthening (where appropriate) the reporting period for other notifications, without impacting public health and safety. In addition, these changes align the requirements for event notification with previous changes made to the related requirements for power reactor.

In addition, quarterly meetings of the Probabilistic Risk Assessment Steering Committee ensure that risk-informed activities are integrated across the agency. Similarly, the participation of NRC managers on the Research Effectiveness Review Board ensures that the agency's research program effectively meets agencywide needs.

Identification, acquisition, implementation, and protection of information resources

The NRC's actions to address this management challenge in FY 2003 are discussed in detail in a previous chapter of this report related to the President's Management Agenda. Please see the section concerning Expanded Electronic Government under the Federal Information Security Management Act (FISMA).

Administration of all aspects of financial management

The NRC's actions to address this management challenge in FY 2003 are discussed in detail in a previous chapter of this report related to the President's Management Agenda. Please see the section concerning Improved Financial Management.

Maintenance of a highly competent staff

The NRC's actions to address this management challenge in FY 2003 are discussed in detail in a previous chapter of this report related to the President's Management Agenda. Please see the section concerning Strategic Management of Human Capital.

Protection of information

In a memorandum dated November 18, 2002, the OIG added this new management challenge. In FY 2003, the NRC started taking actions to address the protection of its information. Additional barriers and warning messages were added to ADAMS software to help prevent the inadvertent release of sensitive documents and a warning message was placed on the bottom of every page on the agency's internal Web site to remind staff that sensitive information should not be made publicly available. Action was also taken to protect the agency's Privacy Act information. Specifically, a process was implemented to assure that information systems managers and project officers will inform the Division of Contracts when contract requirements include contractor access to any NRC systems of records so that Privacy Act clauses can be included and steps were also taken to enforce established policy regarding information systems managers and project officers responsibilities to inform NRC's Privacy Program Officer of systems of records and duplicate systems of records. Biennial reviews will be conducted on NRC offices' systems of records and duplicate systems of records to determine if they have all been identified and protected.

Also in FY 2003, computer security staff updated and revised the NRC's Automated Information Security Policy. The information systems security incident response procedures and the vulnerability patch dissemination and tracking processes were also enhanced. In FY 2003, NRC's firewall policy was revised and updated, and staff conducted a market survey in preparation to define and pilot a secure INTRANET solution to provide the capability for NRC users to process and protect their sensitive information using the agency's network.

The contingency plans for all of the agency's major IT systems were tested in FY 2003, and the management, operational, and technical security controls in our major IT systems were reviewed as required by the Federal Information Security Management Act. All major applications and general support systems in operation at NRC have successfully completed the security certification and accreditation process. Two computer security training courses were brought online in FY 2003, and all information systems security officers (ISSO's) completed the courses.

The NRC will continue to develop and implement additional actions and establish milestones in order to meet this challenge and will include them in the FY 2005 Budget Estimates and Performance Plan.

APPENDIX C: MANAGEMENT DECISIONS AND FINAL ACTIONS ON OIG AUDIT RECOMMENDATIONS

The agency has established and continues to maintain an excellent record in resolving and implementing audit recommendations presented in OIG reports. Section 5(b) of the Inspector General Act of 1978, as amended, requires agencies to report on final actions taken on OIG audit recommendations. The following table gives the dollar value of disallowed costs determined through contract audits conducted by the Defense Contract Audit Agency and the NRC's OIG. Because of the sensitivity of contractual negotiations, details of these contract audits are not furnished as part of this report. As of September 30, 2003, there were no outstanding audits recommending that funds be put to better use.

MANAGEMENT REPORT ON OFFICE OF THE INSPECTOR GENERAL AUDITS WITH DISALLOWED COSTS

For the period October 1, 2002-September 30, 2003

CATEGORY	NUMBER OF AUDIT REPORTS	QUESTIONED COSTS	UNSUPPORTED COSTS
1. Audit reports with management decisions on which final action had not been taken at the beginning of this reporting period.	0	0	0
2. Audit reports on which management decisions were made during this period.	2	$205,396	0
3. Audit reports on which final action was taken during this report period.			
(i) Disallowed costs that were recovered by management through collection, offset, property in lieu of cash, or otherwise.	2	$205,396	0
(ii) Disallowed costs that were written off by management.	0	0	0
4. Reports for which no final action had been taken by the end of the reporting period.	0	0	0

MANAGEMENT DECISIONS NOT IMPLEMENTED WITHIN ONE YEAR

Management decisions were made before September 2002 for the OIG audit reports discussed in the following paragraphs. As of September 30, 2003, the NRC did not take final action on some issues. However, the OIG did not recommend that funds be otherwise allocated.

NRC's License Fee Development Process Needs Improvement (OIG/99A-01)

December 14, 1999

The OIG recommended that the methodology for calculating the hourly rates for license fees be reevaluated to include the full-cost concept as embodied in OMB Circular No. A-25, *User Charges*, and SSFAS Number 4, and that actual cost data be used to refine future rate calculations. The NRC implemented a cost accounting system

in FY 2002, and cost data from this system was used as input to review the existing full-cost rate, including identification and assignment of direct and allocated indirect costs. In November 2003, NRC obtained contractor assistance to provide recommendations for improving NRC's license fee development process, including through the use of actual cost data to refine hourly rate calculations. The contractor will deliver its recommendations in June 2004. If feasible, acceptable recommendations regarding these improvements will be implemented in the FY 2005 fee rule. NRC intends to issue the proposed FY 2005 fee rule in early 2005 and the final rule in mid-2005.

Review of the Development and Implementation of STARFIRE (OIG/99A-14)

June 29, 2000

The OIG recommended that the definition of "significant variation" from approved costs, schedule, and performance goals for major IT projects be clarified so that senior agency managers can make informed decisions about whether or not to continue, modify, or terminate major IT projects. Variance from approved cost, schedule, and performance goals is discussed in Management Directive and Handbook 2.2, *Capital Planning and Investment Control* (CPIC). The results of the CPIC process lessons-learned review have been incorporated into the revised management directive and handbook, including a definition of "significant variation," which are expected to be issued before the end of calendar year 2003. Issuance of the revised management directive and handbook will complete agency action on the OIG's recommendations from this audit.

Review of Audit Follow-up System (OIG-00-A-14)

August 14, 2000

The OIG recommended that the Management Directive and Handbook 6.1, *Resolution and Follow-up of Audit Recommendations*, governing resolution and follow-up of audit recommendations be revised to reflect periodic scheduling standards for conducting analyses of audit recommendations to determine possible trends and systemwide problems and for conducting audit follow-up reviews. The NRC is developing a major revision of the management directive and handbook which will incorporate scheduling standards for analyses and follow-up reviews. The revised management directive and handbook are expected to be issued before the end of FY 2004, and will complete agency action on the OIG's recommendations from this audit.

Special Evaluation of the Role and Structure of NRC's Executive Council (OIG-00-E-09)

August 31, 2000

The OIG recommended that the NRC's management directives and communication mechanisms be updated to reflect the responsibilities and alignment of the Executive Director for Operations (EDO), the CFO, and the Chief Information Officer (CIO) after the Commission decided on a management strategy for the NRC's Executive Council. In January 2001, the Commission announced the abolishment of the Executive Council, although the EDO, CFO, and CIO continue to meet periodically. Of the 32 management directives reviewed for possible revision to reflect the elimination of the Executive Council and the realignment of the responsibilities of the EDO, CFO, and CIO, 14 have been revised and published and 10 have been judged by their originating offices to need no revision. Eight management directives are in various stages of development, review, and concurrence and are expected to be issued during FY 2004. The delay in completing agency action is attributable in large part to the need for general updating of these management directives, along with revisions to reflect the elimination of the Executive Council. Issuance of the eight remaining management directives will complete agency action on the OIG's recommendations from this audit.

The National Materials Program Steering Committee (OIG-01-A-01)

December 14, 2000

The OIG recommended that the NRC establish a requirement in the management directives that agency steering committees formally define their roles and responsibilities. This is planned for completion in FY 2004 and will complete agency action on the OIG's recommendations from this audit.

Review of NRC's Quality Assurance Process for Official Documents (OIG-01-A-02)

February 23, 2001

The OIG recommended that the NRC improve its quality assurance process for official documents by revising Management Directive and Handbook 3.57, *Correspondence Management*, to provide clear expectations for the NRC staff to heighten awareness of the importance of information accuracy. Specifically, the OIG recommended that the NRC establish the responsibilities of the document originator and concurrence chain reviewers with regard to accuracy of final products and to set expectations for document originators concerning fact-checking methods. Interim policy guidance on ensuring the technical accuracy and readability of the NRC's documents and correspondence was issued to all NRC employees in May 2001. A revision of Management Directive and Handbook 3.57, incorporating this policy and other needed updates, is expected to be issued by March 2004, which will complete agency action on the OIG's recommendations from this audit.

Government Performance and Results Act: Review of the FY 1999 Performance Report (OIG-01-A-03)

February 23, 2001

The OIG recommended that the NRC develop the management control procedures needed to produce valid and reliable performance data. Interim guidance for performance management and reporting performance information was issued in July 2001. In July 2002, a new Management Directive and Handbook 4.8, *Performance Measurements*, was issued for intra-agency review and comment. The new management directive and handbook are in final concurrence review and are expected to be published in 2004. Issuance of this management directive and handbook will complete agency action on the OIG's recommendations from this audit.

Review of NRC's Accountability and Control of Software (OIG-02-A-02)

November 6, 2001

The OIG recommended that the NRC incorporate the requirements of Executive Order 13103, *Computer Software Piracy*, and the provisions of the August 1999 guidance issued by the CIO Council (CIOC) into NRC's Management Directive System. The requirements of the Executive order and the provisions of the CIOC's guidance are being incorporated into a new Management Directive 2.6, *Information Technology Infrastructure*, which is expected to be issued by the end of FY 2004. Issuance of this management directive will complete agency action on the OIG's recommendations from this audit.

AID-Funded Activities (OIG-02-A-04)

December 7, 2001

The OIG recommended that the NRC issue formal guidance that clearly sets forth NRC policy, procedures, and guidance on implementing agreements for assistance to foreign countries. NRC issued guidance on U.S. Agency for International Development (AID)-funded implementing agreements in March 2003. Formal guidance on development and management of all implementing agreements is being finalized and is expected to be issued by the end of calender year 2003. Issuance of this guidance will complete agency action on the OIG's recommendations from this audit.

Review of ADAMS (OIG-02-A-12)

June 12, 2002

The OIG recommended that the NRC finalize & issue its draft new management directive and handbook addressing the agency systems development life-cycle management (SDLCM) methodology. In addition, the OIG recommended that the NRC require certain of its contractors supporting the NRC's Agencywide Documents Access and Management System (ADAMS) to have upgraded access clearance.

In early FY 2003, the NRC conducted a lessons-learned analysis to identify changes to improve the SDLCM methodology's effectiveness and usability. The feedback from this analysis resulted in major process revisions, which have been documented in revised drafts of the new Management Directive 2.5, *Application Systems Life-Cycle Methodology*, and the new Handbook 2.5, *Systems Development and Life-Cycle Management Methodology*. The new management directive and handbook are expected to be issued in early calender year 2004. As of early FY 2004, all contractors requiring upgraded access clearances have received them. Issuance of the management directive and handbook will complete agency action on the OIG's recommendations from this audit.

Review of Security at NRC Headquarters (OIG-02-A-14)

August 15, 2002

Due to the sensitive nature of the OIG's review and recommendations in this area, specific details are not furnished as part of this report. However, agency actions on the recommendations remaining open as of September 30, 2003, are expected to be completed by the end of FY 2004. Completion of open recommendations has been delayed due to an increase in scope, including the use of an adjacent lot as the primary entry and exit path to the White Flint Complex, and due to the approvals required to make changes to the perimeter of the White Flint Complex.

Review of NRC's Significance Determination Process (OIG-02-A-15)

August 29, 2002

The OIG recommended various refinements to help ensure the successful implementation of the NRC's Significance Determination Process (SDP), which is a series of analytical steps the NRC uses to evaluate inspection findings under the oversight process for commercial nuclear power plants. Several of the recommendations from this audit remain open. The open recommendations, the agency actions required to address these recommendations, and projected completion dates for agency actions are as follows:

(1) OIG recommended that NRC develop an action plan to correct weaknesses in SDP Phase 2 analysis, which is intended to enable NRC inspection staff to characterize the risk associated with more significant inspection issues in the reactor safety performance area, or eliminate the Phase 2 analysis. The weaknesses identified by OIG include use of incomplete licensee risk assessments, the generally conservative results that Phase 2 analysis produces, and the infrequent use of Phase 2 analysis by NRC inspectors. The NRC issued a task action plan in March 2002 with various activities to improve the overall effectiveness of the SDP, including tasks that extend beyond OIG's recommendation. The OIG's findings will be addressed by ongoing work to develop enhanced pre-solved SDP tables. The Phase 2 notebooks have been benchmarked against licensee risk models, although notebooks benchmarked during the early stages of the process need to be revised to incorporate lessons learned during the latter stages of the review. This work will be completed by the end of FY 2004. The pre-solved SDP tables are scheduled for completion by the end of calender year 2005.

(2) OIG recommended that the NRC develop and implement guidance for using licensee PRA in SDP evaluations. Such guidance would enable NRC analysts to determine that licensees have performed

sufficiently comprehensive and acceptable PRA analyses, thereby providing assurance that SDP risk evaluations are providing a sound basis for regulatory decisions. Ongoing activities include development of improved shutdown risk, fire protection, and containment risk SDPs; creation of new SDPs for inspection findings associated with maintenance and with steam generator tube integrity; and continuation of the Risk Assessment Standardization Project (RASP). Although considerable progress was made during FY 2003, these ongoing activities are not expected to be completed until the end of calender year 2004.

(3) OIG recommended that NRC develop and implement guidance for providing independent assurance of the quality of licensee risk information used to support SDP decisions. Draft Regulatory Guide DG-1122, *Determining the Technical Adequacy of PRA Results for Risk-Informed Activities*, was developed to provide guidance on an acceptable approach to determine the quality of probabilistic risk assessment (PRA) results that may be used to support reactor oversight process (ROP) decision making. As part of its RASP, NRC is pursuing development of implementing procedures for the agency's risk analysts that uses the approach in DG-1122 for evaluating the quality of PRA information submitted by licensees. It is anticipated that the RASP procedures will provide for consistent and independent evaluations of inspection findings, which in turn will allow more effective evaluations of the quality of licensee PRA information. The objective and schedules for this initiative will be finalized by the end of calender year 2003.

(4) OIG recommended that NRC establish metrics to capture the entire process of identifying and assessing findings so that the interval between a licensee performance deficiency and the date NRC inspectors identify and begin to evaluate the deficiency may be monitored. To address the underlying goal of this recommendation, i.e., to self-assess the ROP to enhance the agency's ability to identify performance deficiencies as soon as practical, NRC is evaluating changes to the inspection manual chapters to improve the process by which the agency assesses the effectiveness of inspections, including evaluating the reasons for the length of time that an issue existed before it was identified. NRC revised IMC 0609, *Significance Determination Process*, in early 2003 to clarify the starting point for tracking the 90-day goal relative to making the final determination of the significance of an inspection finding. IMC 0307.06, *Annual Review of Baseline Inspection Procedures*, is being revised to require evaluation of findings to determine if inspection procedure changes can be made to identify performance deficiencies sooner. The revised IMC 0307 is expected to be issued by the end of calender year 2003.

(5) OIG recommended that NRC establish a mechanism for agency managers to resolve identified delays. NRC issued the SDP Active Issues Matrix in August 2002 and it is being updated monthly to reflect the current listing of active and completed SDP reviews. It is distributed to appropriate NRC managers and staff and is also available (in ADAMS) for other interested agency personnel. Since implementation of this report, there has been an improvement in the timeliness of SDP activities, i.e., the percentage of issues completed within the agency's 90-day goal has improved from approximately 60 percent in FY 2002 to approximately 80 percent. NRC intends to continue to monitor the improvement trend through mid-FY 2004 before considering actions on this OIG recommendation to be complete.

(6) OIG recommended that the ROP web page provide a link from the findings summary Web pages to documents that support any changes from the preliminary inspection report significance determinations to help increase the public's understanding of and confidence in NRC's oversight process. Improvements were made to the Web pages during FY 2003 and additional discussions with OIG are needed in FY 2004 to determine whether actions on this OIG recommendations may be considered complete.

Completion of the activities described above will complete agency action on the OIG's recommendations from this audit.

Independent Evaluation of NRC's Information Security Program As Required by the Government Information Security Reform Act for Fiscal Year 2002 (OIG-02-A-17)

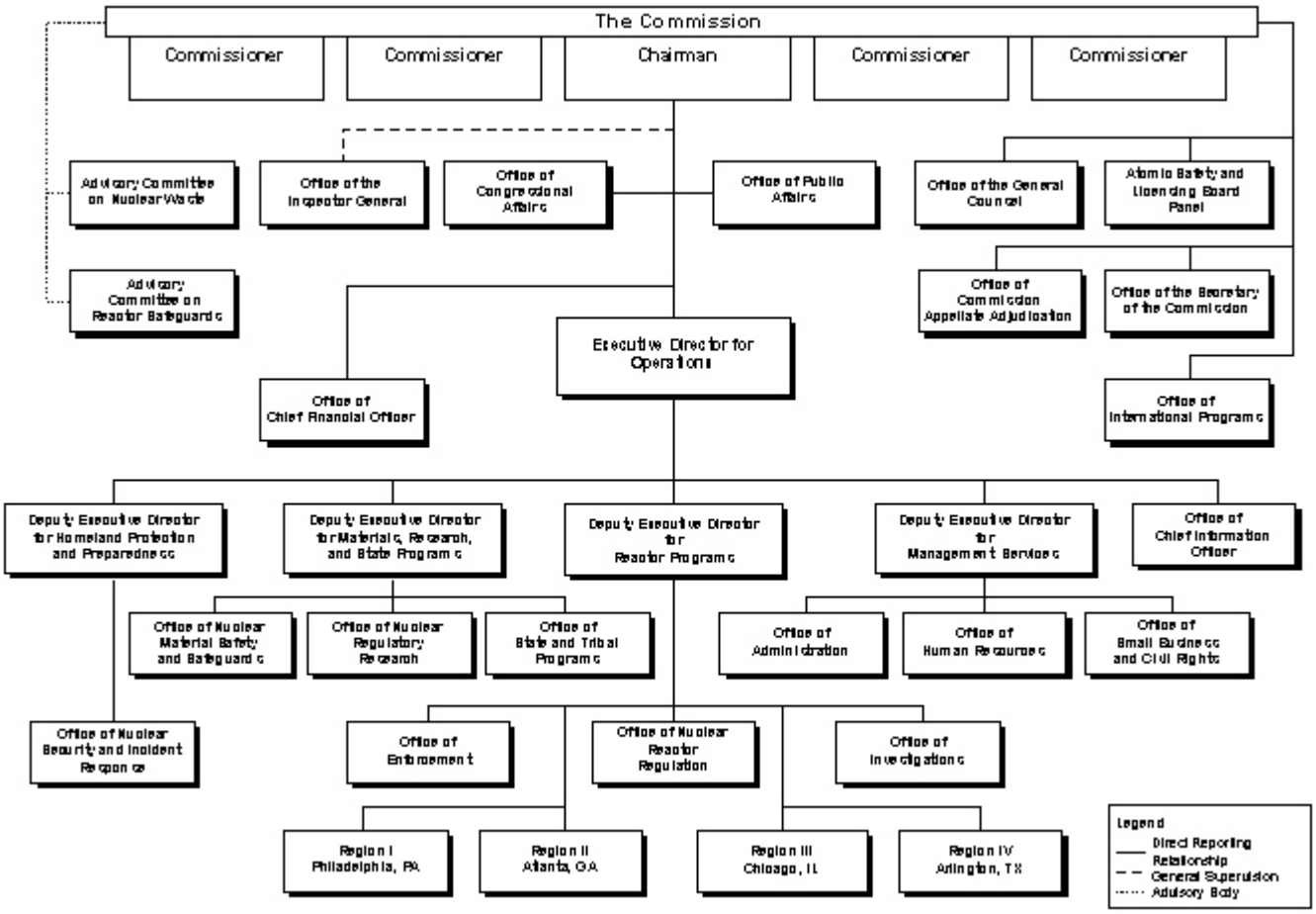
September 11, 2002

Due to the sensitive nature of the OIG's review and recommendations in this area, specific details are not furnished as part of this report. However, agency actions on the recommendations remaining open as of September 30, 2003, are expected to be completed by March 2004.

APPENDIX D: Table of Agreement States

Alabama
Arkansas
Arizona
California
Colorado
Florida
Georgia
Illinois
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Mississippi
Nebraska
Nevada
New Hampshire
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Rhode Island
South Carolina
Tennessee
Texas
Utah
Washington
Wisconsin

APPENDIX E: NRC Organization Chart as of September 30, 2003



APPENDIX F: Glossary of Acronyms

ACNW	Advisory Committee on Nuclear Waste
ACR	Advanced CANDU Reactor
ADAMS	Agencywide Documents Access and Management System
AEA	Atomic Energy Act
AGA	Association of General Accountants
AID	Agency for International Development
AICPA	American Institute of Certified Public Accountants
AO	abnormal occurrence
ASLBP	Atomic Safety and Licensing Board Panel
ASP	accident sequence precursor
BLEU	blended low-level enriched uranium
BPI	business process improvement
BWXT	BWX Technologies Inc
CEE	Central and Eastern Europe
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CIA	Central Intelligence Agency
CIO	Chief Information Officer
CIOC	CIO Council
CNS	Convention on Nuclear Safety
COL	combined license
CPIC	Capital Planning and Investment Control
CRCPD	Conference of Radiation Control Program Directors
CSRS	Civil Service Retirement System
CY	calendar year
DBLLTF	Davis-Besse Lessons Learned Task Force
DBT	design basis threat
DCS	Duke, Cogema, Stone & Webster
DHS	Department of Homeland Security
DOE	Department of Energy
DOL	Department of Labor
DOT	Department of Transportation
DWM	Division of Waste Management
E-Gov	electronic Government

E-RegCoP	Regulation Community of Practice
E-Rule	Electronic Maintenance and Submission of Information
EA	Enterprise Architecture
ECCB	Environmental Configuration Control Board
EDO	Executive Director for Operations
EEO	Equal Employment Opportunity
EHD	Electronic Hearing Docket
EIE	electronic information exchange
EIS	environmental impact statement
EPA	Environment Protection Agency
ERB	Executive Review Board
ESBWR	Electric Simplified Boiling Water Reactor
ESP	early site permit
FACTS I	Federal Agencies' Centralized Trial Balance System
FAIR	Federal Activities Inventory Reform
FAMIS	Federal Acquisition Management Information System
FBI	Federal Bureau of Investigations
FEA	Federal Enterprise Architecture
FECA	Federal Employees Compensation Act
FedCIRC	Federal Computer Incident Response Center
FEMA	Federal Emergency Management Agency
FERS	Federal Employees Retirement System
FFMIA	Federal Financial Management Improvement
FICA	Federal Insurance Contribution Act
FISMA	Federal Information Security Management Act
FMFIA	Federal Managers' Financial Integrity Act of 1982
FSU	Former Soviet Union
FY	fiscal year
GAN	Gasatomnadzor
GAO	General Accounting Office
GEIS	Generic Environmental Impact Statement
GPEA	Government Paperwork Elimination Act
GPRA	Government Performance and Results Act
GSA	General Services Administration
GTMHR	Gas Turbine Modular Helium Reactor

HEU	highly-enriched uranium
HLW	high-level waste
HR	Office of Human Resources
HRMS	Human Resources Management System
I&C	instrument and control
IAEA	International Atomic Energy Agency
IIRSR	Integrated Issue Resolution Status Report
IMPEP	Integrated Materials Performance Evaluation Program
Improvement Act	Federal Management Improvement Act of 1996
Integrity Act	Federal Manager's Financial Integrity Act of 1982
IPAC	Intra-Government Payment and Collection
IRIS	International Reactor Innovative and Secure
IRRT	International Regulatory Review Team
ISA	integrated safety analysis
ISFSI	independent spent fuel storage instillation
ISSOs	information security information officers
IT	information technology
JFMIP	Joint Financial Management Information Program
LES	Louisiana Energy Services
LOCAs	loss of coolant accidents
LPP	Leadership Potential Program
LSN	Licensing Support Network
LTR	License Termination Rule
LLW	low-level waste
MOU	memorandum of understanding
MOX	mixed-oxide fuel
MRB	Management Review Board
MRSIs	monitored retrievable storage installations
MWe	Megawatts electric
NEA	Nuclear Energy Agency
NIST	National Institute of Standards and Technology
NMED	Nuclear Materials Event Database
NMSS	Office of Nuclear Materials Safety and Safeguards
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NSIR	Office of Nuclear Security and Incident and Response

NWPA	Nuclear Waste Policy Act of 1982
OAS	Organization of Agreement States
OBRA-90	Omnibus Budget Reconciliation Act of 1990
OCFO	Office of the Chief Financial Officer
OFPP	Office of Federal Procurement Policy
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OSART	Operational Safety Review Team
PART	Program Assessment Rating Tool
PBC	performance based contracting
PBPM	planning, budgeting, and performance management
PDF	portable document format
PFS	Private Fuel Storage, LLC's
PI	Performance Indicator
PRA	Probabilistic risk assessment
PRB	Petition Review Board
PWR	pressurized-water reactor
RAIs	requests for additional information
RASP	Risk Assessment Standardization Project
RCC	Rulemaking Coordinating Committee
RDD	radiological dispersal devices
REIRS	Radiation Exposure Information Report System
RIRIP	risk-informed regulation implementation plan
RIS	regulatory issue summary
ROP	reactor oversight process
RPV	reactor-pressure vessel
SCCS	streamlined cost comparison studies
SCSS	Sequence Coding and Search System
SDLCM	system development life-cycle management
SDMP	Site Decommissioning Management Plan
SDP	Significance Determination Process
SES	Senior Executive Service
SFFAS	Statements of Federal Financial Accounting Standards
SFFAS Number 4	Managerial Cost Accounting Concepts and Standards for the Federal Government
SFFAS Number 10	Accounting for Internal Use Software

SLA	service level agreement
STS	Standard Technical Specifications
SWP	Strategic Workforce Planning
SWR	Siedwasser-Reactor
TranSAS	Transport Safety Appraisal Service
TSP	Thrift Savings Plan
UMTRA	Uranium Mill Tailings Radiation Control Act
USEC	United States Enrichment Corporation
YMRP	Yucca Mountain Review Plan

ENDNOTES

1. The industry safety indicators are derived through complex engineering and scientific analyses by NRC's Office of Nuclear Regulatory Research. As a result, analysis of events for FY 2002 and FY 2003 are still ongoing. The performance indicator results are subject to minor variations when licensees submit revisions to the source data. These data may differ slightly from data reported in previous years as a result of refinements in data quality.

2. The measure results are actual data NRC received as of July 2003, and the analysis of these data are complete through FY 2002. However, the NRC will still receive data from licensees (for events which occurred during FY 2003), which will be reported in the following year's Performance and Accountability Report.

3. "Nuclear reactor accidents" are defined in the NRC Severe Accident Policy Statement (50 Federal Register 32138, dated August 8, 1985) as those events that result in substantial damage to the reactor fuel, whether or not serious offsite consequences occur. **Data sources and verification:** The NRC requires licensees to notify the NRC Operations Center of the declaration of any emergency specified in the licensee's NRC-approved Emergency Plan. Further, the NRC requires notifications for those non-emergency events specified in the regulations. Licensee compliance with notification regulations is periodically evaluated by the NRC. In addition, NRC resident inspectors are aware of the events that occur at nuclear plants.

4. **Data sources and verification:** The NRC requires licensees to report radiation exposures to the NRC. The NRC periodically evaluates licensee compliance with the reporting criteria and radiological release criteria. In addition, a resident inspector monitors each facility and would be aware of any deaths resulting from acute radiation exposures.

5. "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.3. **Data sources and verification:** The NRC requires licensees to report radiation exposures, and the agency periodically assesses licensee compliance with the reporting criteria and radiological release criteria. In addition, a resident inspector monitors each facility and would be aware of any significant radiation exposures.

6. **Data sources and verification:** The NRC requires licensees to call the agency to report any breaches of security or other event that may potentially lead to sabotage at a nuclear facility within 1 hour of such an occurrence. The licensee would also file a written report within 30 days of an event. In addition, NRC information assessment teams would follow up on any significant events, and the investigation would verify the accuracy of the information provided by the licensee.

7. Releases that have the potential to cause "adverse impact" are currently undefined. As a surrogate, we use those that exceed the limits for reporting abnormal occurrences, as given by Abnormal Occurrence Criterion 1.B.1 [normally 5,000 times the limit specified in Table 2 (air and water) of Appendix B to 10 CFR Part 20]. **Data sources and verification:** The NRC requires licensees to report radiation exposures, and periodically

assesses licensee compliance with the reporting criteria and radiological release criteria. In addition, a resident inspector monitors each facility and would be aware of any instances in which radiation is released from the reactor in excess of reporting limits.

8. The Agency provides oversight of plant safety performance on a plant-specific basis as well as on an industry-wide basis. The specific parameters and criteria for measuring statistically significant adverse trends in industry-wide safety performance include NRC-approved performance indicators, accident sequence precursor results, and other risk-related indicators or measures of industry safety performance. The NRC continues to refine and develop additional, more risk-informed indicators that will be qualified for use in phases. **Data sources and verification:** The NRC monitors industry safety performance through its reactor oversight process and requires licensees to file reports containing operational and event information. NRC Inspections confirm that these reports are complete and reliable.

9. Such events have a 1 in 1,000 (10-3) or greater probability of leading to a nuclear reactor accident. Data sources and verification: The NRC's Accident Sequence Precursor (ASP) Program systematically evaluates operating experience to identify, document, and rank events that have the potential to cause core damage. These events are identified through computerized screening of licensee event reports or other events designated by the NRC. Selected events then undergo an engineering evaluation to identify, analyze, and document precursor events. Preliminary analysis of potential precursor events are independently verified either by comparison of results from the Reactor Oversight Process or submitted for independent peer review by licensees and NRC to ensure that the plant design and its response to the precursor event are correctly characterized.

10. Overexposures are those that exceed limits as provided by 10 CFR 20.2203(a)(2), excluding instances of overexposures involving a shallow dose equivalent from a discrete radioactive particle in contact with the skin. **Data sources and verification:** The NRC requires licensees to file reports containing information on events involving radiation exposure to an individual. Inspections confirm that event reports are complete and reliable. In addition, areas of a nuclear facility that may be subject to radioactive contamination have monitors that record radiation levels and would identify any occurrence of radioactive levels exceeding regulatory limits.

11. Under 10 CFR 20.2203(a)(3), a 30-day reporting requirement applies to these releases. **Data sources and verification:** The NRC requires licensees to file reports contain information on events involving excessive radiation exposure or concentrations of radioactive material. The NRC also conducts inspections to ensure that licensees properly monitor and control releases to the environment through effluent pathways. In addition, monitors would record any instance in which radiation is released to the environment, and the NRC would conduct a followup investigation.

12. **Data sources and verification:** The NRC tracks a variety of security performance data furnished by licensees to identify trends in physical security over time.

13. 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. The detailed Accident Sequence Precursor (ASP) Program analysis of this event is ongoing. Based on the screening and engineering evaluation of FY 2002 events, no other potentially

"significant" precursors were identified. Therefore, the second performance measure was not exceeded for FY 2002. For FY 2003 events occurring before June 30, 2003, screening and engineering evaluation of these events identified no potentially "significant" precursors.

14. A 10 CFR 2.206 petition is a written request filed by any person to institute a proceeding to modify, suspend, or revoke a license, or for any other enforcement action. The petition specifies the requested action and sets forth the facts that constitute the basis for the request. The NRC evaluates the technical merits of the safety concern presented by the petition. Based on the facts determined by the NRC technical evaluation or investigation of the merits of the petition, the Director will issue a decision to grant or deny the petition, in whole or in part. The Director's Decision explains the bases upon which the petition has been granted or denied and identifies the actions that the NRC has taken or will take in response to the petition.

    The start time of the 120 days is the date that the Petition Review Board (PRB) determines that the proposed petition satisfies the criteria of NRC Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions," and acknowledges by letter the petitioner's request. For petitions received after October 1, 2000, the end time is the date of the proposed Director's Decision. Supplements to the petition which require extension of the schedule will reset the beginning of the metric to the date of a new acknowledgment letter.

15. Failure to meet the target in FY 2002 resulted from several petitions related to nuclear plant security that were filed following the terrorist attacks on September 11, 2001. In response to the terrorist attacks, the NRC proposed additional security measures for nuclear power plants. The NRC delayed Director's Decisions until the measures were reviewed and approved so as to ensure that decisions conformed to the new NRC policies.

16. The NRC met the performance goal measure during FY 2003 except for one milestone in the. fourth quarter. In order to address reactor safety risk-informed rulemaking priorities as a result of a staff requirements memorandum, COMSECY-03-0029, the staff redirected resources from the coherence program. This prioritization was supported by the industry during the August 2003 PRA Steering Committee meeting.

17. The measure results are actual data received from the NRC and Agreement States as of September 2003, and the analysis of this data is complete through FY 2002. The NRC and Agreement States will continue to receive data from licensees for events that occurred during FY 2003, and the NRC will report these data in next year's Performance and Accountability Report.

18. **Data source and verification:** Events resulting in deaths could be reported to the NRC and/or Agreement States through a number of sources, but primarily through required licensee notifications. These events are summarized in event notifications and preliminary notifications, which are used to disseminate the information widely to the appropriate managers and staff. For Nuclear Materials Safety Arena activities, the Nuclear Materials Event Database (NMED) is an essential system for collecting information on such events. For fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70. The decision on whether to ascribe the cause of a death to conditions related to acute radiation exposures or other

hazardous materials will be made by NRC or Agreement State technical specialists or our consultants. 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 Agreement States and NRC regions are properly collecting and reporting such events and entering them into NMED as received from the licensees.

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. Exposures to hazardous material (as defined by the Occupational Safety and Health Administration) apply only to fuel cycle and uranium recovery activities in the Nuclear Materials Safety arena. **Data source and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through required licensee notifications. The NRC summarizes these events in event notifications and preliminary notifications, which are used to communicate this information internally to the appropriate managers and staff. For Nuclear Materials Safety Arena activities, the NMED is an essential system for collecting information on such events. For fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material consistent with 10 CFR Part 70. The Fuel Cycle and Materials 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 properly collecting and reporting such events and entering them into NMED as received from the licensees.

20. Releases that have the potential to cause "adverse impact" are currently undefined. As a surrogate, we use those that exceed the limits for reporting abnormal occurrences as given by Abnormal Occurrence Criterion 1.B.1 [normally 5,000 times the limit specified in Table 2 (air and water) of Appendix B to 10 CFR Part 20]. This information is available in NUREG-0090, "Abnormal Occurrence (AO) Report to Congress," on NRC Web site http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0090/v25/index.html. **Data source and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through required licensee notifications. The NRC summarizes these events in event notifications and preliminary notifications, which are used to communicate this information internally to the appropriate managers and staff. For Nuclear Materials Safety Arena activities, the NMED is an essential system for collecting information on such events. The Fuel Cycle and Materials 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 properly collecting and reporting such events and entering them into NMED as received from the licensees.

21. **Data source and verification:** In accordance with Appendix G to 10 CFR Part 73 and 10 CFR 74.11(a), licensees are required to report events that involve losses, thefts, or diversions of formula quantities of strategic special nuclear material; radiological sabotages; or unauthorized enrichment of special nuclear material regulated by the NRC. Licensees must report such events to the NRC Headquarters Operations Center within 1 hour of their occurrence. Licensees are also required to file a followup written report with the NRC within 30 days of the event. The report must include sufficient information for NRC analysis and evaluation. The NRC then enters and tracks the events in NMED and

initiates independent investigations to verify the reliability of the reported information. NRC investigation teams evaluate the validity of materials event data, in order to ensure that the licensees are collecting and reporting the proper event data. As a result, the NRC's routine inspection program would discover any failures of appropriate licensee reporting. In addition, the NRC holds periodic meetings to validate previously screened events.

22. Data source and verification: In accordance with the requirements of 10 CFR 95.57, licensees are required to report any alleged or suspected violations of the Atomic Energy Act, Espionage Act, or other Federal statutes related to classified information. However, for performance reporting, the NRC only counts those disclosures or compromises that actually cause damage to national security. Such events are 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 then contacts the Division of Facilities and Security at NRC headquarters. The Division of Facilities and Security assesses the violation and notifies other offices at the NRC, as well as other Government agencies, as appropriate. A determination is then made as to whether the compromise caused damage to national security. Any unauthorized disclosures or compromises of classified information causing damage to national security would result in immediate investigation and followup by the NRC.

23. Performance targets have changed from FY 2000 to FY 2003 to reflect additional historical data. (Targets were as follows: FY 2000-356; FY 2001-350; FY 2002-300)

24. Events of material entering the public domain in an uncontrolled manner are reported under 10 CFR 20.2201(a)(1)(i) and (ii). The NMED lists these events as reported by NRC licensees and, through the Agreement States, the Agreement State licensees. Data sources and verification: Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources but primarily through licensee notifications. The Materials Inspection Program is a key element in verifying the completeness and accuracy of licensee reports.

25. **Data sources and verification:** Licensees are required to immediately report any criticality event to the NRC Operations Center by telephone. Licensees must then submit followup written reports to the NRC within 30 days of the initial report. These reports must contain specific information describing the event, as required by NRC regulations. The NRC then dispatches an augmented or incident inspection team (depending on the severity of accident) to verify the completeness and accuracy of the licensee's report. An event of this nature is immediately investigated and followed up.

26. Performance targets have changed from FY 2000 to FY 2003 to reflect additional historical data. (targets were as follows: FY 2000-19; FY 2001-40; FY 2002-30)

27. Overexposures are those that exceed the dose limits specified in 10 CFR 20.2203(a)(2) as tracked in NMED. For fuel cycle activities, this extends to other hazardous materials used with, or produced from, licensed material, consistent with 10 CFR Part 70. Reportable chemical exposures are those that exceed license commitments. Such events would also include chemical exposures involving uranium recovery activities under the Uranium Mill Tailings Radiation Control Act. Multiple people may be affected by a single causal event.

Data sources and verification: Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through licensee notifications. The Materials Inspection Program is a key element in verifying the completeness and accuracy of licensee reports. The IMPEP also verifies the accuracy of the event reports.

28. Medical events (misadministrations), as reported under 10 CFR Part 35, are tracked in NMED. Multiple patients may be affected by a single causal event. **Data sources and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through licensee notifications. The Materials Inspection Program is a key element in verifying the completeness and accuracy of licensee reports.

29. Performance targets have changed from FY 2000 to FY 2003 to reflect additional historical data (Targets were as follows: FY 2000-39; FY 2001-6; FY 2002-5)

30. Events that meet this measure are reportable under 10 CFR 20.2203(a)(3)(ii). Reports of such events must document actual releases of material; reportable events involving radiation fields are not counted under this measure. This measure also includes chemical releases from regulated activity under the Uranium Mill Tailings Radiation Control Act. **Data sources and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through licensee notifications. The Materials Inspection Program is a key element in verifying the completeness and accuracy of licensee reports.

31. "Malevolent use" is defined as the deliberate misuse of radioactive materials with the intent to cause physical or psychological harm to a person or persons, or to cause physical damage to a facility or the environment. The NRC evaluates intentional violations and deliberate acts against this definition. **Data sources and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through licensee notifications. The NRC responds to licensee reports or allegations by initiating an independent investigation to verify the completeness and accuracy of the data.

32. The NRC recognizes that no explicit reporting requirements exist for substantiated breakdowns of programs. The NRC relies on its safeguards inspection findings and licensee notifications. **Data sources and verification:** Such events must be recorded within 24 hours in a safeguards log maintained by the licensee. The NRC relies on its safeguards inspection program to help validate the reliability of the recorded data and determine whether a breakdown of a physical protection or material control and accounting system has, in actuality, resulted in a vulnerability. The NRC also evaluates the data in order to ensure that licensees are collecting and reporting the proper event data.

33. This involves chemical releases from NRC-regulated activities under the Uranium Mill Tailings Radiation Control Act. **Data sources and verification:** Events meeting this threshold could be reported to the NRC and/or Agreement States through a number of sources, but primarily through licensee notifications. The Materials Inspection Program is a key element in verifying the completeness and accuracy of licensee reports. Releases that cause impacts to the environment that cannot be mitigated within applicable regulatory limits using reasonably available methods are not readily defined. The expert

judgement of NRC personnel and that of other agencies, such as the Environmental Protection Agency (EPA), are relied upon to make that determination. Events of this magnitude would result in prompt and thorough investigation.

34. The measure results are actual data received from the NRC and Agreement States as of September 2003, and the analysis of this data is complete through FY 2002. The NRC and Agreement States will continue to receive data from licensees for events that occurred during FY 2003, and the NRC will report these data in next year's Performance and Accountability Report.

35. **Data sources and verification:** Events meeting this threshold are reported to the NRC and/or Agreement States primarily through required licensee notifications, although other sources may also report such events. These events are summarized in event notifications and preliminary notifications, which are used to widely disseminate the information to the appropriate managers and staff. The NRC then enters the reports into the Nuclear Materials Event Database (NMED), which is an essential system for collecting, tracking, and evaluating information on such events. The decision on whether to ascribe the cause of a death to conditions related to acute radiation exposures will be made by NRC or Agreement State technical specialists or our consultants. The Integrated Materials Performance Evaluation Program (IMPEP) also provides a mechanism to verify that Agreement States and NRC regions are properly collecting and reporting such events and entering them into NMED as received from the licensees.

    Determining whether any deaths result from acute radiation exposures is valid and fundamentally essential to protecting 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 of the event, its consequences, its root causes, and the necessary actions by the licensee and NRC to mitigate the situation and prevent recurrence.

36. "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, as agreed upon by NRC or Agreement State technical specialists, or our consultants. **Data sources and verification:** Events meeting this threshold are reported to the NRC and/or Agreement States primarily through required licensee notifications, although other sources may also report such events. The NRC summarizes these events in event notifications and preliminary notifications, which are used to communicate this information internally to the appropriate managers and staff. The NRC then enters the reports into NMED, which is an essential system for collecting, tracking, and evaluating information on such events. The IMPEP also provides a mechanism to verify that Agreement States and NRC regions are properly collecting and reporting such events and entering them into NMED as received from the licensees.

    Any event resulting in an unintended permanent function damage to an organ or physiological system compromises 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 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 previously screened events.

37. Releases that have the potential to cause "adverse impact" are currently undefined. As a surrogate, we use those that exceed the limits for reporting abnormal occurrences as given by Abnormal Occurrence criterion 1.B.1 [normally 5,000 times the limit specified in Table 2 (air and water) of Appendix B to 10 CFR Part 20]. This information is available in NUREG-0090, the "Abnormal Occurrence Report to Congress," which is available on the NRC's Web site at www.nrc.gov/NRC/NUREGS/SR0090/V22/sr0090V22.pdf. **Data sources and verification:** Events meeting this threshold are reported to the NRC and/or Agreement States primarily through required licensee notifications, although other sources may also report such events. The NRC summarizes these events in event notifications and preliminary notifications, which are used to communicate this information internally to the appropriate managers and staff. The NRC then enters the reports into NMED, which is an essential system for collecting, tracking, and evaluating information on such events. The IMPEP also provides a mechanism to verify that Agreement States and NRC regions are properly collecting and reporting such events and entering them into NMED as received from the licensees.

    The events reported under this measure are those that threaten the environment. Events of this magnitude are rare. 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 validate previously screened events.

38. **Data sources and verification:** In accordance with Appendix G to 10 CFR Part 73 and 10 CFR 74.11(a), licensees report events that entail losses, thefts, diversions, or radiological sabotage of special nuclear material or radioactive waste. Licensees must report such events to the NRC Headquarters Operations Center within 1 hour of their occurrence. Licensees are also required to file a followup written report with the NRC within 30 days of the event. The report must include sufficient information for NRC analysis and evaluation. The NRC then enters and tracks the events in NMED and initiates an independent investigation to verify the reliability of the reported information. Any Strategic Plan failure results in immediate investigation and followup, and is tracked in the Safeguards Summary Event List Database. Any lack of appropriate licensee reporting would be discovered through the routine inspection program. In addition, the NRC holds periodic meetings where staff and management validate previously screened events.

    This measure only applies to actual losses, thefts, diversions, or radiological sabotage. Attempts to steal, divert, or conduct sabotage using special nuclear material or radioactive waste are covered by a parallel measure at the performance goal level. Such events could compromise public health and safety, the environment, and the common defense and security.

39. Overexposures are those that exceed the dose limits specified in 10 CFR 20.2203(a)(2) as tracked in NMED.

40. **Data sources and verification:** Events meeting this regulatory threshold are reported to the NRC and/or Agreement States primarily through required licensee notifications, although other sources may also report such events. The IMPEP reviews provide a mechanism to verify that Agreement States and NRC regions are properly collecting and reporting such events as received from the licensees, and that they are being correctly entered into NMED as received from the licensees.

41. The NRC recognizes that no explicit reporting requirements exist for substantiated breakdowns of physical protection. The NRC relies on its safeguards inspection findings and licensee notifications.

42. **Data sources and verification:** Events such as those described above must be recorded within 24 hours in a safeguards log maintained by the licensee. No explicit reporting requirements exist for substantiated breakdowns of physical protection. The NRC relies on its safeguards inspection program to help validate the reliability of the recorded data and determine whether a breakdown of a physical protection system has, in actuality, resulted in a vulnerability. The NRC also evaluates the event data in order to ensure that licensees are collecting and reporting the proper event data.

43. A 30-day reporting requirement applies to such releases under 10 CFR 20.2203(a)(3).

44. **Data sources and verification:** Under 10 CFR 20.2203(a)(3), the NRC requires licensees to report any radiological release to the environment within 30 days of occurrence, when such a release occurs as a result of operational activities and exceeds the regulatory limits. Events meeting this threshold are reported to the NRC and/or Agreement States primarily through required licensee notifications, although other sources may also report such events. The NRC enters the reports into NMED, which is an essential system for collecting, tracking, and evaluating information about such events. The IMPEP also provides a mechanism to verify that Agreement States and NRC regions are properly collecting and reporting such events and entering them into NMED as received from the licensees.

45. Measuring the protection of future generations over the planning period of the next 5 years is a unique challenge, which the Commission is continuing to evaluate.

46. **Data sources and verification:** The NRC monitors events and issues related to the safe handling, use, transportation, storage, and disposal of radioactive waste and materials that are reported to the Commission in accordance with existing regulations. The NRC monitors events that might indicate a current or future inability of licensee or licensee's contractor's to perform a required function or activity in a safe manner. Any event, condition or substantiated allegation that is formally reported to the NRC is evaluated for safety impact and potential generic implications. In FY 2001, the NRC completed a review of formerly terminated licensed sites with potential contamination that could require cleanup and disposal. The NRC identifies a responsible party that will need to clean up such sites and works with the party to facilitate cleanup.

47. A 10 CFR 2.206 petition is a written request filed by any person to institute a proceeding to modify, suspend, or revoke a license, or for any other enforcement action. The petition specifies the requested action and sets forth the facts that constitute the basis for the request. The NRC evaluates the technical merits of the safety concern presented by the

petition. Based on the facts determined by the NRC technical evaluation or investigation of the merits of the petition, the Director will issue a decision to grant or deny the petition, in whole or in part. The Director's Decision explains the bases upon which the agency has granted or denied the petition and identifies the actions that the NRC has taken (or will take) in response to the petition.

48. The start time of the 120 days is the date that the Petition Review Board (PRB) determines that the proposed petition satisfies the criteria of NRC Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions," and acknowledges the petitioner's request with a formal letter. For petitions received after October 1, 2000, the end time is the date of the proposed Director's Decision. Supplements to the petition that require extension of the schedule will reset the beginning of the metric to the date of a new acknowledgment letter.

49. The NRC Performance Plan did not identify any milestones to be completed in FY 2002 for the Nuclear Waste Safety.

50. "Domestic safeguards" are those nuclear material control and accounting measures and physical protection measures implemented by and within any country, including the United States, to prevent sabotage of nuclear materials or facilities or theft or diversion of nuclear materials by an individual or group within that country. Secure use of nuclear materials is achieved through the successful implementation of domestic safeguards. "International safeguards" are the independent verifications performed by the IAEA of a country's "peaceful use" declarations on nuclear materials and nuclear facilities.

51. Section 123 of the Atomic Energy Act, as amended, requires agreements for Cooperation in the Civil/Peaceful Use of Nuclear Energy to establish the legal framework for technical cooperation in the production and use of special nuclear material, as well as for the supply of such material or fuel cycle equipment, or related sensitive information, to another country or international organization. These Agreements for Cooperation (or Section 123 Agreements, as they are also known) include such nonproliferation conditions and controls as safeguards commitments; a guarantee of no explosive or military use; a guarantee of adequate physical protection; and U.S. rights to approve retransfers, enrichment, reprocessing, other alterations in form or content, and storage of U.S.-supplied or derived material. They must be in effect before the NRC can issue an export license.

52. "Significant incidents" are incidents that include a loss (by theft or diversion) of 1 or more kilograms of weapons-grade uranium or plutonium, the detonation by a non-nuclear weapon state of a nuclear explosive device, or the abrogation of Nuclear Nonproliferation Treaty safeguard commitments by a non-nuclear weapon state.

53. Three licensing actions were delayed beyond 60 days due to a lack of information provided by the licensees and one licensing action was delayed pending additional views required from Executive Branch. These delays were outside the control of NRC.

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