



UNITED STATES
N U C L E A R
R E G U L A T O R Y
C O M M I S S I O N



INFORMATION
TECHNOLOGY/
INFORMATION
MANAGEMENT

IT/IM
STRATEGIC PLAN
FY 2008 ~ 2012

A MESSAGE FROM THE CHIEF INFORMATION OFFICER

I am pleased to issue the Nuclear Regulatory Commission's (NRC's) Information Technology/Information Management (IT/IM) Strategic Plan for Fiscal Years 2008 through 2012.

The objective of the NRC's IT/IM program is to—

Conduct the NRC's IT/IM activities to improve the productivity, efficiency, and effectiveness of agency programs and operations, and enhance the utility of information for all users inside and outside the agency.



Jacqueline E. Silber, CIO

Through its achievement we will help the NRC reach its strategic objective:

To enable the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes in a manner that protects the public health and safety, promotes the security of our Nation, and provides for regulatory actions that are open, effective, efficient, realistic, and timely.

The goals, strategies, and measures in this plan provide the foundation for directing and assessing the performance of the NRC's IT/IM program over the next 5 years. Its scope covers all of the NRC's IT/IM resources agencywide, including our local and wide area networks, computers, and telecommunication devices, our information and records management functions, and all of our applications ranging from mission-critical systems, such as those supporting licensing and emergency response, to systems required for support functions like payroll, personnel, and accounting.

This plan will be updated periodically to remain synchronized with the NRC Strategic Plan, and the results of the IT/IM performance measures will be reported annually in the agency Performance and Accountability Report.

The two most important goals of the NRC's IT/IM program are to make it easy for the staff and stakeholders to access NRC information and to make it easier for them to use our business processes. These two goals drive the other four IT/IM goals related to investment governance, IT/IM infrastructure, human capital, and customer service. With respect to investment governance, the NRC is committed to ensuring that our IT/IM resources are invested wisely and deliver the planned results. Part of this investment strategy is to fully support electronic government by influencing and expeditiously adopting Governmentwide IT solutions where they provide sufficient return on investment, and by applying technologies to streamline those processes that are unique to the NRC. At the same time we must meet the ever more complex challenge of protecting information security and privacy where that is appropriate.

As Chief Information Officer, I directly oversee a significant portion of the agency's IT/IM program, but its scope extends to every NRC organization and affects all of our stakeholders. Because of that, you, our stakeholders, both inside and outside the agency, are a key element of this plan. As part of the implementation process, we will be asking for your input as we move forward with many of our strategies and measures, and I can assure you that your input is and will continue to be a key driver of the agency's IT/IM program.

**U.S. Nuclear Regulatory Commission Information Technology/Information Management
Strategic Plan
FY 2008–FY 2012**

Table of Contents

Executive Summary	1
1. Introduction	3
1.1 About the NRC	3
1.2 Federal IT/IM Strategic Planning Requirements	3
1.3 Other Drivers of IT/IM Strategic Planning	3
1.4 Relationship to Other Documents	4
2. Environment and Context	5
2.1 The NRC’s Strategic Plan	5
2.2 The NRC’s IT/IM Program Management Approach	7
2.3 Situation Assessment	9
3. IT/IM Program Objective, Vision, and Strategic Goals	14
3.1 IT/IM Objective and Vision	14
3.2 IT/IM Strategic Goals	14
3.3 Relationship to Agency Strategic Plan	15
4. Strategies and Performance Measures by Goal	17
4.1 Goal 1: Information	17
4.2 Goal 2: Business Processes	20
4.3 Goal 3: Investment Governance	22
4.4 Goal 4: Infrastructure	24
4.5 Goal 5: Human Capital	27
4.6 Goal 6: Customer Service	29
5. IT/IM Strategic Planning and Performance Measurement Process	31
5.1 Description of the IT/IM Planning and Performance Measurement Process	31
5.2 Relationship to Other Planning and Performance Measurement Processes	33
5.3 Roles and Responsibilities for IT/IM Strategies and Measures	35
5.4 Relationship to IT/IM Capital Planning and Investment Control	35
5.5 Relationship to Enterprise Architecture	35
5.6 Relationship to Federal Electronic Government Strategy	36
Appendix A — Relationship of IT/IM Strategic Goals to the Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC’s FY 2004–2009 Strategic Plan.	37

Executive Summary

The U.S. Nuclear Regulatory Commission Fiscal Year 2008–2012 Information Technology/Information Management Strategic Plan (NRC FY 2008–2012 IT/IM Strategic Plan) describes how IT/IM activities at the NRC help accomplish the agency’s mission. That mission includes licensing and regulation of commercial nuclear power plants; research, test, and training reactors; nuclear fuel cycle facilities; medical, academic, and industrial uses of radioactive materials; and the transport, storage, and disposal of radioactive materials and wastes. The NRC’s regulations are designed to protect the public and occupational workers from radiation hazards in those industries using radioactive materials.

The NRC’s FY 2004–FY 2009 Strategic Plan addresses some of the NRC’s major IT/IM challenges, in particular, issues related to expanded Electronic Government. The IT/IM FY 2008–2012 Strategic Plan expands on the discussion contained in the NRC’s Strategic Plan, identifying goals, strategies, and performance measures to address the full scope of IT/IM activities that are needed to accomplish the agency’s mission. The IT/IM Strategic Plan will be adjusted as necessary to reflect the next revision of the NRC Strategic Plan (FY 2007–FY 2012), which is scheduled to be completed by the end of 2007. The two plans will be fully aligned for the FY 2009 budget submission.

The IT/IM plan responds to Federal requirements laid out in the Paperwork Reduction and Clinger-Cohen Acts, which, among other things, direct agencies to establish goals and measures of the contribution of IT/IM activities to agency productivity, efficiency, effectiveness, and service to the public.

The IT/IM strategic planning process began with a situation assessment, reviewing the needs of NRC stakeholders and assessing internal program drivers; external oversight and Electronic Government drivers; the political, economic, and technological environment; strengths of the NRC IT/IM program; and areas for improvement based on recent self-assessments, Inspector General audits, and Government Accountability Office reports.

The NRC’s IT/IM Program

Objective: Conduct the NRC’s IT/IM activities to improve the productivity, efficiency, and effectiveness of agency programs and operations, and enhance the utility of information for all users inside and outside the agency

Vision: Getting the right information to the right people at the right time, efficiently and effectively

Strategic Goals:

- ▶ **Goal 1—Information:** Make it easy for the staff to produce and access information to perform their work and for stakeholders to participate and interact effectively with the agency
- ▶ **Goal 2—Business Processes:** Achieve and sustain effective, easy-to-use, integrated, and transparent agency business processes
- ▶ **Goal 3—Investment Governance:** Reduce duplication, increase enterprisewide and Governmentwide collaboration, and ensure IT/IM investments are secure and cost effective
- ▶ **Goal 4—Infrastructure:** Provide an IT/IM infrastructure that is secure, robust, reliable, and responsive to changing business needs
- ▶ **Goal 5—Human Capital:** Increase awareness, proficiency, and innovation in applying IT/IM tools and services to strengthen individual and organizational performance
- ▶ **Goal 6—Customer Service:** Achieve and sustain a high level of satisfaction with agencywide information services

Carried out with the participation of program officials from across the agency, the planning process resulted in the IT/IM program objective, vision, and strategic goals shown in the box on the previous page as well as high-level strategies and measures for each of the strategic goals.

The NRC IT/IM strategic planning process is fully integrated with the NRC's agencywide planning, budgeting, and performance management process and is reinforced by the agency's IT/IM governance process. The latter relies heavily on the NRC's Enterprise Architecture program to ensure that new IT/IM investments are in alignment with the agency's strategic direction, conform with agency IT architecture, and are not duplicative. The plan also reinforces and supports active participation in Federal Electronic Government initiatives.

In summary, the goals, strategies, and measures in the NRC IT/IM Strategic Plan provide the foundation for directing and assessing the performance and results of the NRC's IT/IM program over the next 3 to 5 years.

1. Introduction

The U.S. Nuclear Regulatory Commission Fiscal Year 2008–2012 Information Technology/Information Management Strategic Plan (NRC FY 2008–2012 IT/IM Strategic Plan) describes how IT/IM activities at the NRC help accomplish the agency’s mission. Section 1 covers the NRC’s mission and responsibilities, Federal requirements for IT/IM planning, and the relationship of this plan to other planning documents. Section 2 provides the environment and context for the plan. Sections 3 and 4 discuss the planning outcomes—the IT/IM program objective, vision, and strategic goals, and the strategies and measures associated with each of the goals. Section 5 describes the integration of the NRC’s IT/IM strategic planning process with other agency planning processes and with the IT/IM governance process. The last two subsections of Section 5 cover the plan’s relationship to the NRC’s Enterprise Architecture program and the Federal Electronic Government Program.

1.1 About the NRC

The NRC was established by the Energy Reorganization Act of 1974 and began operations in 1975. Its mission is to regulate the civilian commercial, industrial, academic, and medical uses of nuclear materials, in order to protect public health and safety and promote the common defense and security.

The NRC’s scope of responsibility includes licensing and regulation of commercial nuclear power plants; research, test, and training reactors; nuclear fuel cycle facilities; medical, academic, and industrial uses of radioactive materials; and the transport, storage, and disposal of radioactive materials and wastes. The NRC’s regulations are designed to protect the public and occupational workers from radiation hazards in those industries using radioactive materials. For more information about the NRC’s activities, see <http://www.nrc.gov/what-we-do.html>.

1.2 Federal IT/IM Strategic Planning Requirements

The Paperwork Reduction Act and the Clinger-Cohen Act of 1996 set forth the Federal requirements associated with IT/IM strategic planning. This document serves as the NRC’s strategic information resources management plan in accordance with Section 3506(b)(2) of the Paperwork Reduction Act. The IT/IM strategic goals in Section 3.2 and the performance measures in Section 4 of this document, together with performance measures for individual major IT investments, address the requirements of Section 3506(b)(3) of the Paperwork Reduction Act and Sections 5123(1) and (3) of the Clinger-Cohen Act. The NRC’s annual Performance and Accountability Report will include annual progress in achieving the goals, as required by Section 5123(2) of the Clinger-Cohen Act.

1.3 Other Drivers of IT/IM Strategic Planning

Legal mandates aside, what is the value of IT/IM strategic planning? As early as 1994, the General Accounting Office (now the Government Accountability Office (GAO)) published a best practices report entitled, “Improving Mission Performance Through Strategic Information Management and Technology.” Based on a series of case studies, the report laid out 11 fundamental strategic management practices that led to significant performance improvements, both short and long term, in leading private and public organizations. The report and subsequent GAO testimony before Congress was so compelling that these practices ultimately

became the basis for the Clinger-Cohen Act. Several of the practices were directed towards strategic planning, including “Anchor strategic planning in customer needs and mission goals” and “Integrate the planning, budgeting, and evaluation processes.” The NRC has made these two practices the cornerstones of the agency’s new IT/IM strategic planning process.¹

The NRC sees strategic planning as an essential element for the success of its programs. Because of the ever-increasing importance of information access and IT in agency business processes and the significance of IT/IM investments, it is essential to have a roadmap for IT/IM strategies and investments that moves the NRC, efficiently and effectively, in the direction set by the agency Strategic Plan. That roadmap is the NRC IT/IM Strategic Plan.

1.4 Relationship to Other Documents

The NRC IT/IM Strategic Plan is related to several other documents that record the results of the NRC’s planning, budgeting, and performance management processes. These documents include the following:

- NRC Strategic Plan

The NRC IT/IM Strategic Plan is driven by the agency-level goals and strategies in the agency’s FY 2004–2009 Strategic Plan, which is more fully described in Section 2.1. Section 3.3 provides more information on the relationship between the two plans.

- NRC Performance Budget

Each FY, the NRC submits its budget to the Office of Management and Budget (OMB) and, later, to the Congress. Beginning with the FY 2009 budget, submitted to OMB in the fall of 2007, the targets for the measures laid out in this IT/IM Strategic Plan will be included in the NRC Performance Budget, and all of the NRC’s IT/IM investments will be fully aligned with the strategies and measures in this plan. The resource implications of the strategies and measures will be determined as part of the budget process when targets are set.

- NRC Performance and Accountability Report

Each November, the NRC reports on its performance for the preceding FY. The NRC Performance and Accountability Report for the FY 2009 budget cycle will include performance for the goals and associated measures established in this version of the NRC IT/IM Strategic Plan.

1 The plan also addresses several of the other fundamental practices. For example, Section 4.2 relates to “Measure the performance of key mission delivery processes,” and Section 4.3 relates to “Manage information systems projects as investments.”

2. Environment and Context

2.1 The NRC's Strategic Plan

The NRC's FY 2004–2009 Strategic Plan formed the foundation for IT/IM strategic planning by laying out the NRC's overall strategic direction for the planning period. The plan established the following vision, strategic objective, strategic goals, and associated outcomes:

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

Strategic Objective: Enable the use and management of radioactive materials and nuclear fuels for beneficial purposes in a manner that protects the public health and safety and the environment, promotes the security of our Nation, and provides for regulatory actions that are open, effective, efficient, realistic, and timely.

Strategic Goals:

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

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

Openness: Ensure openness in our regulatory process.

Effectiveness: Ensure that NRC actions are effective, efficient, realistic, and timely.

Management: Ensure excellence in agency management to carry out the NRC's strategic objective.

Strategic Outcomes:

Safety:

- no nuclear reactor accidents
- no inadvertent criticality events
- no acute radiation exposures resulting in fatalities
- no releases of radioactive materials that result in significant radiation exposures
- no releases of radioactive materials that cause significant environmental impacts

Security:

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

Openness:

- stakeholders are informed and involved in NRC processes as appropriate

Effectiveness:

- no significant licensing or regulatory impediments to safe and beneficial uses of radioactive materials

Management:

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

Section V, Subsection D, "Expanded Electronic Government," of the NRC Strategic Plan sets forth three critical challenges and seven strategies by which IT/IM programs would support the management excellence goal:

Critical Challenges:

- (1) meeting increasing requirements to conduct business electronically, manage information more effectively, be open in agency processes, and ensure information security
- (2) meeting the expanding needs of a mobile workforce
- (3) establishing and maintaining the Licensing Support Network and the Electronic Hearing Docket for the high-level waste repository proceedings

Expanded Electronic Government Strategies:

- (1) Strengthen Enterprise Architecture to enhance agency IT/IM investment decisions.
- (2) Influence and implement Electronic Government initiatives that are applicable to the NRC.
- (3) Adopt Governmentwide IT solutions where cost effective.
- (4) Expand and strengthen information security capabilities to ensure that effective information protection is in place.
- (5) Make it easier for NRC employees to acquire, access, and use information needed to perform their work.

- (6) Improve the ability of the NRC to conduct business electronically with external entities.
- (7) Provide external stakeholders the ability to access the agency's publicly available information more easily and effectively.

In addition, the plan explicitly refers to IT/IM strategies and means in sections under the Security, Openness, and Effectiveness goals, and in Section F, "Internal Communication," under the Management goal.

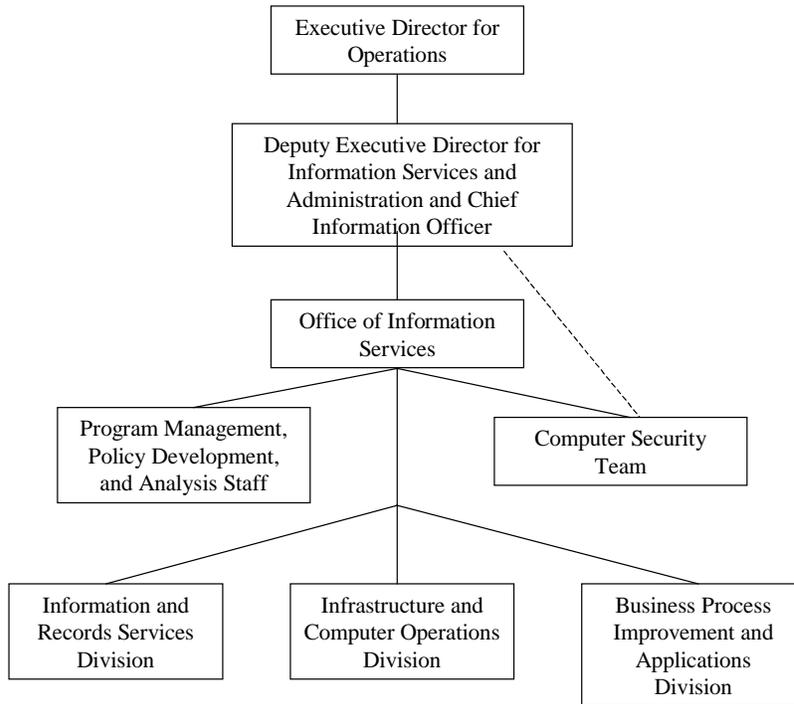
These sections of the NRC FY 2004–2009 Strategic Plan were major drivers of the NRC IT/IM Strategic Plan. The full text of the NRC's FY 2004–2009 Strategic Plan may be found at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1614/>. See also Section 3.3 of this document for a more detailed description of the linkages between statements in the NRC FY 2004–2009 Strategic Plan and goals and strategies in this IT/IM Strategic Plan.

2.2 The NRC's IT/IM Program Management Approach

The agency's Chief Information Officer (CIO), who reports directly to the Executive Director for Operations (EDO), manages the NRC's agencywide IT/IM program. Reporting to the CIO is the Office of Information Services (OIS), led by the Deputy CIO. Figure 1 shows the main components of OIS, which oversees computer security, manages and operates the agency's IT infrastructure, provides information and records services, and coordinates programs for business process improvement and the development and maintenance of the NRC's business applications. OIS also manages the agency's IT/IM strategic planning, capital planning, and Enterprise Architecture activities. For additional information on OIS functions, see <http://www.nrc.gov/who-we-are/organization/oisfuncdesc.html>.

The NRC headquarters and regional offices also have certain responsibilities for portions of the IT/IM program, the most important of which is the sponsorship of major applications that support their business functions. Application sponsors develop the business case and manage the application systems development lifecycle process with varying levels of assistance from OIS, depending on office needs. The NRC regional offices manage their local IT infrastructure. The NRC intends to continue with this basic approach to the allocation of IT/IM responsibilities.

Figure 1
Executives and Organizations with Primary Responsibilities for
the NRC's Agencywide IT/IM Program



2.3 Situation Assessment

The IT/IM strategic planning process began with a situation assessment, reviewing the needs of NRC stakeholders and assessing internal program drivers; external oversight and Electronic Government drivers; the political, economic, and technological environment; strengths of the NRC IT/IM program; and areas for improvement based on recent self-assessments, Inspector General audits, and GAO reports.

The NRC's Stakeholders

The NRC's external stakeholders include the agency's licensees, the nuclear industry, advocacy organizations, the Congress, OMB, State and local governments, Indian Tribes, other Federal agencies (such as the Department of Energy (DOE), the Department of Homeland Security, and the Environmental Protection Agency), international nuclear regulators, academia, members of the public living near regulated facilities, and the general public.

Internal stakeholders include the Commission, senior executives, managers, and staff.

Each of these stakeholders has interests with respect to the NRC's activities. The stakeholder interests particularly relevant to IT/IM planning include the following:

- access by external stakeholders to agency information needed to understand the NRC's mission, goals, and performance and to participate effectively in the regulatory process
- access by internal stakeholders to agency information needed to perform their work, grow professionally, and take advantage of Federal employee services and benefits
- reliable IT infrastructure and high-quality IT/IM customer support services
- efficient IT governance processes to allow IT/IM projects to move forward expeditiously while ensuring that the IT/IM budget is invested wisely and that IT/IM investments produce the intended return
- protection of privacy data
- ability to communicate and share information (securely, in some cases) internally and with external stakeholders
- ability to conduct business effectively and efficiently, both internally and with external stakeholders
- need for more efficient business processes to handle increased workload

NRC Programmatic Drivers

Agency programs and activity areas expected to be the main drivers for new and existing IT applications during the planning period include the following:

- new reactor applications and licensing
- high-level waste repository licensing review, as affected by the uncertainty about the timing of the submittal of the DOE license application
- homeland security
- nuclear nonproliferation
- increasing responsibilities for incident response
- increased volume of electronic communication, including secure communication
- defense in depth for IT infrastructure and information security, including secure communication
- continued emphasis on the NRC's goal to ensure openness in its regulatory processes
- enhancing the National Materials Program, which includes activities such as medical, industrial, and academic uses of radioactive materials; increased controls of radioactive sources; and implementation of the Energy Policy Act of 2005, mandating an NRC regulatory framework for certain naturally occurring and accelerator-produced radioactive material
- emergent work involving new fuel cycle technologies and industry initiatives to increase production

External Oversight and Electronic Government Drivers

External oversight and Electronic Government drivers include the following:

- opportunities to achieve efficiencies and increase openness through Electronic Government initiatives
- migration to fee-for-service shared administrative support systems under Electronic Government initiatives (such as requirements to use specific service providers for human resource and financial systems)
- increasing demands for information and heightened expectations of stakeholders with respect to Electronic Government driving the automation of business processes from end to end, including stakeholder business functions and public dissemination of information (e.g., the NRC's new processes for conducting hearings electronically)

- the continued focus of oversight agencies on how agencies are meeting security and privacy requirements, including those in the Federal Information Security Management and Privacy Acts
- the continued need for rapid response to Governmentwide initiatives with significant IT implications such as Homeland Security Presidential Directive 12 (HSPD-12) and Federal implementation of Internet Protocol Version 6 (IPv6)
- the continued oversight focus from OMB based on the requirements of the Clinger-Cohen Act related to the effective management of IT investments from an enterprise perspective (project management, earned value management, capital planning and investment control (CPIC) process, portfolio management, etc.)
- the continued oversight focus from OMB based on the requirements of the Clinger-Cohen Act related to the use of Enterprise Architecture for better agencywide planning of IT investments, including common data, shared services, and business process orientation
- increased interest from the Congress and the Administration in how agencies are meeting their human capital challenges

Political Environment

The assessment considered the following aspects of the political environment:

- uncertainty about the timing of the high-level waste repository application
- elevated risk of terrorism and heightened security levels
- heightened concern about security and emergency preparedness as a result of terrorism, the threat of a flu pandemic, and recent natural disasters

Economic Environment and Workforce Changes

The assessment considered the following economic environment and workforce changes:

- a more computer-literate staff with less NRC corporate knowledge
- the Federal fiscal environment, providing a strong impetus for process efficiencies
- higher energy prices, space limitations, and staff retention needs driving an increase in telecommuting
- growth in the nuclear industry, increasing turnover and competition for qualified staff

Technological Environment

The assessment considered the following aspects of the technological environment:

- continuing advances in technology capabilities with processing power doubling every 18 months, storage capacity doubling every 12 months, and bandwidth doubling every 9 months, making it important to have an IT architecture, systems development, and governance approach that enables the NRC to respond to the rapid evolution of technology
- advances in mobile computing, storage, and wireless technologies, providing opportunities for innovation in regulatory and administrative processes
- advances in knowledge management and collaboration technologies providing opportunities to improve information access and information dissemination
- IT security moving from user input (user identification and password) to a two-factor security architecture (in which a user has something tangible to give access, such as a key, as well as information that is entered, such as user identification and password)
- increasing dependence on IT, heightening the need to prevent and combat cyberterrorism through strong computer security programs

Strengths

A situation assessment usually includes a review of strengths and weaknesses, so that strengths can be built upon and weaknesses addressed. To prepare for this assessment, the NRC reviewed recent performance self-assessments, Inspector General audits, GAO audits of the agency, and internal performance measures and assessments.

The NRC's IT/IM program was found to have strengths in several main areas. In the area of IM, particular strengths include the Document and Records Management and Information Collections Program. The National Archives and Records Administration (NARA) has frequently recognized the NRC's records management program as a model for other Federal agencies. The NRC's Agencywide Documents Access and Management System (ADAMS) was the first NARA-approved enterprisewide electronic recordkeeping system. On May 13, 2003, NARA awarded the NRC the Archivist Achievement Award for Records Management in recognition of the deployment of ADAMS as a recordkeeping system. When NARA issued guidance to agencies for establishing a vital records program, it cited the NRC's program as an example for other agencies to follow.

Because of the NRC's exemplary information collections program and the quality of its submissions to OMB, the NRC has been granted special authorization to independently review and approve information collections with an insignificant burden impact on the public. The NRC Technical Library and the Public Document Room have also achieved recognition from their user groups for the depth of their collections and available resources, the high caliber of their professional staff, and the thoroughness of their services.

In the IT area, strengths include overall IT infrastructure reliability and support as well as special capabilities that have been put in place to support NRC hearings. The NRC's agencywide infrastructure and services support contract provides hardware/software installation, maintenance, and support; network infrastructure, maintenance, support, and administration; and central management of all desktop and network resources and services at headquarters, the regional offices, and resident inspector sites. In FY 2005, the NRC maintained infrastructure availability service levels of 99.6 percent and exceeded service-level requirements for internal customer support, resulting in an increase in customer satisfaction.

Another IT strength is the special IT infrastructure that the agency has put in place for electronic hearings. The NRC's Electronic Information Exchange system allows those who do business with the agency to submit documents electronically with digital certificates. Using this system, along with the agency's document management system, electronic hearing dockets, and digital hearing management system, the NRC will be able to conduct its future hearings, such as those for new reactors and the high-level waste repository, electronically.

Areas for Improvement

Based on the performance review, the NRC's IT/IM program could benefit from improvements in the following areas:

- more effective guidance, support, and leadership for compliance with the Federal Information Security Management Act
- more effective communication and partnerships with customers and stakeholders to provide awareness of current and future initiatives, ensure alignment of priorities, effectively manage and coordinate service and work activities, and improve service delivery
- stronger leadership and clearer direction for IT/IM long-range planning, vision, and strategies
- more progress on the development and implementation of an agency Enterprise Architecture to more effectively plan and identify IT business solutions that support agency business needs
- more effective guidance, support, and leadership for IT investment management from an enterprise perspective
- improvements in IT training available to the staff
- clarification of roles and responsibilities for IT project management
- better approaches for email records management

3. IT/IM Program Objective, Vision, and Strategic Goals

3.1 IT/IM Objective and Vision

The box at the right shows the objective and vision of the NRC's agencywide IT/IM program. The NRC's IT/IM activities include all such activities across the agency, at headquarters as well as at the NRC's regional offices and Technical Training Center. This includes all IT infrastructure, such as local and wide-area networks, desktop computers, and telecommunications; all application development and Web sites; and all IM activities across the agency, such as document management, records management, and Freedom of Information Act processing. Information utility is intended to include all aspects of usability, including information quality, timeliness, accuracy, availability, and ease of use.

The NRC's IT/IM Program
Objective: Conduct the NRC's IT/IM activities to improve the productivity, efficiency, and effectiveness of agency programs and operations, and enhance the utility of information for all users inside and outside the agency
Vision: Getting the right information to the right people at the right time, efficiently and effectively

3.2 IT/IM Strategic Goals

In response to the NRC's Strategic Plan and the situation assessment discussed in Section 2, the NRC has adopted six strategic goals for its IT/IM program:

- (1) Information—Make it easy for the staff to produce and access information to perform their work and for stakeholders to participate and interact effectively with the agency.
- (2) Business Processes—Achieve and sustain effective, easy-to-use, integrated, and transparent agency business processes.
- (3) Investment Governance—Reduce duplication, increase enterprisewide and Governmentwide collaboration, and ensure IT/IM investments are secure and cost effective.
- (4) Infrastructure—Provide an IT/IM infrastructure that is secure, robust, reliable, and responsive to changing business needs.
- (5) Human Capital—Increase awareness, proficiency, and innovation in applying IT/IM tools and services to strengthen individual and organizational performance.
- (6) Customer Service—Achieve and sustain a high level of satisfaction with agencywide information services.

These goals will be used to guide the NRC's IT/IM activities and investment priorities.

3.3 Relationship to Agency Strategic Plan

Section 2.1 of this document summarizes the NRC FY 2004–2009 Strategic Plan, including its five strategic goals. The IT/IM programs support the agency's primary goal to ensure the protection of the public's health and safety and the environment, as well as the agency's Security, Openness, Effectiveness, and Management goals.

Table 1 maps some specific elements of the IT/IM Strategic Plan to the agency's strategic goals. Appendix A provides a more exhaustive cross-reference between specific outcomes, strategies, and means for each goal in the NRC FY 2004–2009 Strategic Plan and the six IT/IM strategic goals.

Table 1
Examples of How the IT/IM Strategic Plan Supports the NRC Strategic Plan

Goals and Strategies from NRC Strategic Plan	Supporting Goals and Strategies from IT/IM Strategic Plan
<p>Safety—Develop systematic improvements in the NRC’s regulatory program to ensure the safe use and management of radioactive material.</p>	<p>Business Processes—Systematically evaluate, improve, integrate, and automate selected regulatory and support processes from beginning to end, considering the needs of all process participants and using the most effective redesign approaches and technologies.</p>
<p>Security—Enhance the handling and storage of sensitive security and other pertinent information and communication of such information to licensees and Federal, State, and local partners.</p>	<p>Information—Improve electronic access to classified and safeguards information as appropriate to conduct agency business.</p> <p>Infrastructure—Provide IT infrastructure capabilities to accommodate classified and safeguards information.</p>
<p>Openness—Provide accurate and timely information to the public about the uses of and risks associated with radioactive materials.</p> <p>Openness—Provide accurate and timely information about the safety performance of the licensees regulated by the NRC.</p>	<p>Information—Improve information management processes such as information dissemination and knowledge management.</p> <p>Information—Improve internal and external electronic information access and delivery systems.</p> <p>Information—Improve NRC information quality and completeness.</p>
<p>Effectiveness—Foster innovation at the NRC to improve systematically the NRC’s regulatory programs.</p>	<p>Human Capital—Institutionalize a culture where new ideas for IT/IM are welcomed and pursued and all levels.</p>
<p>Management (Human Capital)—Use innovative recruitment, development, and retention strategies to achieve a high-quality, diverse work force with the skills needed to achieve our mission.</p> <p>Management (Infrastructure Management)—Continuously identify new and better ways of providing service.</p>	<p>Human Capital—Strengthen recruitment and retention and improve the skills, expertise, and capabilities of managers and staff with IT/IM responsibilities agencywide.</p> <p>Customer Service—Improve the effectiveness and efficiency of help services for the staff and the public.</p>

4. Strategies and Performance Measures by Goal

This section lays out a set of strategies for achieving each of the six IT/IM strategic goals as well as measures that will be used to assess agency progress. Each year during the agency budget process, the NRC will allocate resources for the specific projects (means) for implementing the strategies and set specific performance targets for each measure.

4.1 Goal 1: Information

Information: Make it easy for the staff to produce and access information to perform their work and for stakeholders to participate and interact effectively with the agency.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Systematically assess staff and stakeholder information needs and develop plans to address them. 2. Improve information management processes, such as information dissemination and knowledge management. 3. Improve internal and external electronic information access and delivery systems. 4. Improve NRC information quality and completeness. 5. Improve awareness of existing NRC information resources. 6. Improve electronic access to classified and safeguards information as appropriate to conduct agency business. 	<ol style="list-style-type: none"> 1. Improvement in employee satisfaction with information access, dissemination, and methods of production, after baselining, using a survey. 2. Improvement in external stakeholder satisfaction with information access and dissemination, after baselining, using a survey.

The following are example means for executing each of the strategies that support the Information goal.

Strategy 1—Systematically assess staff and stakeholder information needs and develop plans to address them

The NRC will systematically identify, prioritize, and develop plans to address the information needs of major internal and external stakeholder groups. Example means for assessing user needs include surveying individual stakeholders, soliciting input from internal and external organizations, and obtaining input from NRC information system user groups. The results of this strategy and the two satisfaction surveys described in the table above will help to determine the focus areas for the other strategies associated with the Information goal.

Strategy 2—Improve IM processes, such as information dissemination and knowledge management

Based on the results of Strategy 1, the NRC will assess and improve IM processes such as the following:

- information dissemination
- methods for producing, collaborating on, and reusing information
- mechanisms for knowledge transfer and management

The NRC has reviewed its information dissemination program in accordance with OMB Memorandum M-06-02, "Improving Public Access to and Dissemination of Government Information and Using the Federal Enterprise Architecture Data Reference Model," dated December 16, 2005, and found that most NRC information is readily available through its public Web site (particularly the resources available in the Electronic Reading Room, which includes comprehensive access to all of the NRC's public documents), the services of the Public Document Room, and NUREG/BR-0010, Revision 4, "Citizen's Guide to the U.S. Nuclear Regulatory Commission," issued August 2004, which provides consistent, authoritative instructions on where and how to obtain NRC information for members of the public who may or may not have access to the Internet. The review did identify some areas for improvement, including the need to update the NRC's information dissemination policy and make it easier for the public to search the full scope of the NRC's public Web content. The NRC will use the areas for improvement identified by the review, together with findings from Strategy 1, the performance measurement process for Goal 1, and work associated with the NRC's data reference model, to continuously improve its information dissemination program.

Strategy 3—Improve internal and external electronic information access and delivery systems

Example means for executing this strategy include the following:

- making progress toward a coordinated agencywide search strategy encompassing all NRC electronic information sources
- applying best practice usability principles to make it easier for employees and the public to access NRC information from agency Web sites and application systems
- enhancing and upgrading the NRC's document management capabilities to make documents easier to find and access, and to accommodate new business requirements
- implementing internal knowledge management capabilities that facilitate information exchange within communities of interest

Strategy 4—Improve NRC information quality and completeness

The NRC will assess existing quality controls and, where appropriate, make improvements to ensure that information is complete, accurate, up to date, retained (as appropriate), and made public in a timely manner.

Strategy 5—Improve awareness of existing NRC information resources

The NRC will facilitate internal and external stakeholders' understanding of information available and the mechanisms and resources that may be used to access or obtain the information.

Strategy 6—Improve electronic access to classified and safeguards information as appropriate to conduct agency business

Example means include the following:

- improving staff access to NRC safeguards and classified information by establishing electronic document and records management capabilities for this information, including secure electronic access by authorized users
- enabling more effective sharing of safeguards and classified information between the NRC and other agencies by participating in Federal initiatives such as the Homeland Security Data Network

See also Strategy 8 under Goal 4 (Infrastructure) (Section 4.4).

Measures for Goal 1

The NRC has elected to use a direct measure of stakeholder satisfaction to assess performance in meeting the Information goal. The agency will review existing information-related satisfaction surveys and develop a single agencywide approach for measuring the satisfaction of internal and external stakeholders. The NRC will design the two surveys to provide actionable results that can help to focus activities under the other strategies for this goal on the areas with the greatest impact.

4.2 Goal 2: Business Processes

Business Processes: Achieve and sustain effective, easy-to-use, integrated, and transparent agency business processes.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Systematically evaluate, improve, integrate, and automate selected regulatory and support processes from beginning to end, considering the needs of all process participants and using the most effective redesign approaches and technologies. 2. Apply IT/IM to meet high-priority business needs (e.g., new reactors, the high-level waste repository proceeding, homeland security). 3. Identify needs and provide necessary resources to deliver IT/IM services to all offices to help them take advantage of IT/IM capabilities to improve the effectiveness and efficiency of their operations. 	<ol style="list-style-type: none"> 1. Percent of performance improvement targets that were met within a specified period of time for each process chosen for improvement.

The following are example means for executing each of the strategies that support the Business Process goal.

Strategy 1—Systematically evaluate, improve, integrate, and automate selected regulatory and support processes from beginning to end, considering the needs of all process participants and using the most effective redesign approaches and technologies

In redesigning and improving business processes, the NRC will focus on improving the process before automating, integrating across functions rather than perpetuating fragmented or duplicative solutions, and adapting to Governmentwide and commercially available approaches rather than insisting on customization.

The NRC's approach to selecting the processes that need improvement and setting performance targets will include the following:

- use of the Performance Assessment Review Tool results and other objective measures of business process performance, such as unit cost per output, productivity, cycle time, and decrease in the number of touch points between processes
- mid- and senior-level NRC management involvement to identify target business processes and a schedule for improving them

- input from internal and external stakeholders involved in the processes
- selection criteria such as satisfaction with the process and support for strategic goals

The approach to implementing revised processes will include effective participation by internal and external stakeholders involved in the processes and a method for monitoring the progress of the process improvements.

Strategy 2—Apply IT/IM to meet high-priority business needs

Examples of high-priority business needs include new reactors, the high-level waste repository proceeding, and homeland security.

Strategy 3—Identify needs and provide necessary resources to deliver IT/IM services to all offices to help them take advantage of IT/IM capabilities to improve the effectiveness and efficiency of their operations

For example, the NRC will increase assistance to smaller offices to aid them in obtaining IT/IM services, developing small applications in support of their needs, and using applications developed by other offices.

Measure for Goal 2

The NRC will measure progress in meeting its Business Process goal by using input from Strategy 1 and other sources to annually establish and then track success in meeting improvement targets for specific processes.

4.3 Goal 3: Investment Governance

Investment Governance: Reduce duplication, increase enterprisewide and Governmentwide collaboration, and ensure IT/IM investments are secure and cost effective.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Strengthen the IT/IM governance framework to improve IT investment selection, control, and evaluation, and better integrate IT governance with the NRC's other planning and budgeting processes. 2. Clarify roles and responsibilities and integrate, document, and fully implement IT/IM governance processes to effectively and efficiently deliver IT/IM business solutions, balancing compliance with service and efficiency. 3. Seek common solutions, reduce duplication, and promote sharing of data, systems, and service components across the agency. 4. Influence Federal Governmentwide initiatives that are applicable to the NRC and expeditiously adopt Governmentwide IT solutions where they provide sufficient return on investment. <p>See also Strategy 2 under Goal 4 (Infrastructure).</p>	<ol style="list-style-type: none"> 1. Reduction in duplication within a baseline portfolio of systems. 2. Increase in amount of authoritative data made available for sharing in each major Federally identified line of business (e.g., financial management and human resources management) and for each NRC-specific line of business. 3. Increase in the use of shared electronic services and data within a baseline portfolio of systems. 4. Percent of milestones completed as agreed to with OMB in the NRC's Electronic Government Implementation Milestone Plan. 5. Improvement in overall average score for major IT investments reported in OMB Exhibit 300s. 6. Percent of major applications and general support systems that have a current authority to operate as determined by the Designated Approving Authority.

The following are example means for executing each of the strategies that support the Investment Governance goal.

Strategy 1—Strengthen the IT/IM governance framework to improve IT investment selection, control, and evaluation, and better integrate IT governance with the NRC's other planning and budgeting processes

The NRC will continue to build on progress made to date in integrating the IT governance framework with the agency's planning, budgeting, and performance management process; its financial and human resources management processes and its program decisionmaking processes.

Strategy 2—Clarify roles and responsibilities and integrate, document, and fully implement IT/IM governance processes to effectively and efficiently deliver IT/IM business solutions, balancing compliance with service and efficiency

Examples of processes covered by Strategy 2 include the following:

- project management methodology
- Enterprise Architecture
- Capital planning and investment control for the NRC's IT portfolio
- IT/IM planning, budgeting, and performance management including OMB reporting
- IT security certification and accreditation of the NRC's major applications and general support systems

Strategy 3—Seek common solutions, reduce duplication, and promote sharing of data, systems, and service components across the agency

Example means for implementing this strategy include the following:

- identifying data owners, establishing central, authoritative data sources for use by all agency systems, documenting this in the NRC data reference model, and measuring the amount of shared data in major lines of business
- working with the Chief Financial Officer's organization to document the existing financial management systems architecture, and develop a future system design to fully meet the business needs of NRC offices as well as the Chief Financial Officer
- developing an enterprise security model based upon National Institute of Standards and Technology and OMB guidance and industry standard technologies to reduce the time and cost of the certification and accreditation process, implemented as a security model of the Service Component Architecture so it can be shared agencywide
- assisting NRC offices in leveraging existing and planned systems and data repositories by publishing a technical standards profile identifying all technology and data standards used at the NRC and their approved purpose

Also related to the goal of reducing duplication is Strategy 2 under Goal 4 (Infrastructure) (Section 4.4).

Strategy 4—Influence Federal Governmentwide initiatives that are applicable to the NRC and expeditiously adopt Governmentwide IT solutions where they provide sufficient return on investment

Examples of applicable initiatives are the human resources and financial management lines of business, electronic rulemaking, electronic forms, case management, and geospatial initiatives.

Measures for Goal 3

The NRC is adopting six measures to monitor its progress in achieving the major elements of the Investment Governance goal, with a strong focus on reducing duplication and increasing collaboration. The results of these measures will influence the focus of NRC governance activities and help direct resources to areas needing improvement.

4.4 Goal 4: Infrastructure

Infrastructure: Provide an IT/IM infrastructure that is secure, robust, reliable, and responsive to changing business needs.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Improve IT infrastructure planning. 2. Build shared services into the IT infrastructure to reduce costs of applications that require these services. 3. Expand and strengthen information security capabilities to ensure that effective information protection is in place, and develop and communicate policies regarding security. 4. Improve IT infrastructure delivery processes and services. 5. Increase IT infrastructure capacity, availability, and reliability to cost effectively meet business needs. 6. Provide IT infrastructure products and services that respond to the needs of a mobile workforce while continuing to ensure information security. 7. Strengthen IT infrastructure capabilities to accommodate agency business needs during both nuclear and nonnuclear emergencies. 8. Provide IT infrastructure capabilities to accommodate classified and safeguards information. 	<ol style="list-style-type: none"> 1. Percent of major security vulnerabilities that are corrected within the time limits specified in the NRC's security vulnerability remediation procedures. 2. Percent of network security vulnerabilities for which a preliminary assessment of risk is available within the time limits specified in the NRC's security vulnerability remediation procedures. 3. Percent of security patches that are tested, and, if approved, are fully implemented within the timeframes specified in the NRC's security patch testing and implementation procedures. 4. Percent of the hardware/software items needed by major applications that are fully supported by the original manufacturer as of the end of the measurement period. 5. Percent of an identified list of systems that meet their specified availability target during the operating hours specified in service-level agreements. 6. Percent of identified, approved IT infrastructure initiatives delivered on time.

The following are example means for executing each of the strategies that support the Infrastructure goal.

Strategy 1—Improve IT infrastructure planning

This strategy includes improving the requirements analysis process for infrastructure upgrades in partnership with internal stakeholders to take into account such questions as the following:

- What emerging business needs do we need to support?
- What technologies are currently supported?
- What supported technologies need to be upgraded?
- What new technologies should we adopt?
- What is the impact on our IT architecture?
- What are the current service-level agreements?
- What service-level agreements need to be changed?

The NRC will use the outcome of the planning process to update a single, integrated infrastructure technology roadmap as part of the enterprise architecture transition plan.

Strategy 2—Build shared services into the IT infrastructure to reduce costs of applications that require these services

Examples of shared services covered by this strategy include identity management (single sign-on), workflow, electronic meetings and collaboration, and secure communications. Another example is agency participation in the implementation of HSPD-12. Under HSPD-12, there will be a mandatory, Governmentwide standard for the identification issued by the Federal Government to its employees and contractors. This universal Government “smartcard” will be used to control physical and electronic access to Federal buildings, applications, and other resources to enhance security, increase Government efficiency, reduce identity fraud, and protect personal privacy.

Strategy 3—Expand and strengthen information security capabilities to ensure that effective information protection is in place, and develop and communicate policies regarding security

Example means for implementing this strategy include the following:

- providing automated security patch management and vulnerability assessment capability for agency servers and workstations
- expanding network intrusion detection capability

Strategy 4—Improve IT infrastructure delivery processes and services

Examples of potential improvements include the following:

- simplifying the process of deploying desktop technology for employees new to the NRC or new to a position
- improving service delivery, for example by expanding primary support hours for the Customer Support Center to include weekend support
- providing more flexibility in solutions to program needs

Strategy 5—Increase infrastructure capacity, availability, and reliability to cost effectively meet business needs

Example means include the following:

- improving Web-based multimedia capabilities to enable such uses as distance learning, broad access to Webinars, and access to video, photo, and audio archives
- participating in the Federal initiative to implement IPV6, which expands Internet address spaces, providing the necessary basis for realizing a global information society and laying the ground for convergence between fixed and mobile computing as well as between data, voice, and video transmission through the Internet
- maintaining the NRC's video teleconferencing system with up-to-date equipment that meets the growing needs of the agency
- increasing the level of redundancy in the NRC's connection to the Internet to reduce risks from common-mode failures and single points of failure

Strategy 6—Provide IT infrastructure products and services that respond to the needs of a mobile workforce while continuing to ensure information security

Examples of means to implement this strategy are to provide expanded remote access capability for NRC staff, expand the use of wireless computing, and increase support for mobile computing devices such as laptops, dockable workstations, personal digital assistants, and mobile phones with more universal access. Because these new capabilities introduce additional risks, the NRC will implement new policies and controls to protect information privacy and security.

Strategy 7—Strengthen IT infrastructure capabilities to accommodate agency business needs during both nuclear and nonnuclear emergencies

Examples include providing necessary IT/IM capabilities in the NRC Operations Center; increasing the involvement of IT/IM staff in continuity of operations planning; documenting procedures, roles, and responsibilities for IT/IM staff during incidents and emergencies; and increasing IT/IM staff participation in exercises, drills, tests, and other practice activities.

Strategy 8—Provide IT infrastructure capabilities to accommodate classified and safeguards information

Examples are implementing a secure infrastructure, secure videoteleconferencing, and participating in related Federal initiatives such as the Homeland Security Data Network and secure Federal digital signatures.

Measures for Goal 4

The NRC has chosen six measures to assess agency performance in meeting the Infrastructure goal with a significant focus on security. The results of these measurements will guide work under the infrastructure strategies and focus activities on areas needing improvement.

4.5 Goal 5: Human Capital

Human Capital: Increase staff awareness, proficiency, and innovation in applying IT/IM tools and services to strengthen individual and organizational performance.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Establish IT/IM core competencies and IT/IM certification requirements for different job series. 2. Implement consistent policies across the agency on requirements for use of standard desktop technology. 3. Improve IT/IM training as necessary to support the competencies identified under Strategy 1. 4. Increase and improve communication about how IT/IM tools and services can be applied to NRC activities. 5. Institutionalize a culture where new ideas for use of IT/IM are welcomed and pursued at all levels. 6. Strengthen recruitment and retention and improve the skills, expertise, and capabilities of managers and staff with IT/IM responsibilities agencywide. <p>See also Strategy 5 under Goal 1 (Information) and Strategy 3 under Goal 6 (Customer Service)</p>	<ol style="list-style-type: none"> 1. Increase in training instances for courses that incorporate the application of NRC IT/IM tools to job functions (e.g., managing projects, performing inspections, preparing correspondence) where needed to improve performance. 2. Reduction in information security infractions (paper and electronic) associated with classified, safeguards, and sensitive unclassified nonsafeguards information, while maintaining the same or a more stringent level of security standards. 3. Increase in staff proficiency with the use of standard NRC software as measured by competency-based assessment tools.

The following are example means for executing each of the strategies that support the Human Capital goal.

Strategy 1—Establish IT/IM core competencies and IT/IM certification requirements for different job series

In concert with the competency-based approach adopted in the NRC’s Strategic Training Plan, the NRC will establish and measure core competencies for key IT/IM skill areas by job series. Examples of core competencies are use of the agency’s document management system, information security, and IT project management skills.

Strategy 2—Implement consistent policies across the agency on requirements for use of standard desktop technology

The NRC will look for best practices in using agency-standard desktop tools such as email and calendars and establish consistent agencywide approaches with the objective of improving efficiency and effectiveness.

Strategy 3—Improve IT/IM training as necessary to support the competencies identified under Strategy 1

Example means include the following:

- establishing clearly defined IT/IM training requirements at the agency and office levels
- developing and expanding the availability of online help and online tutorials for supported desktop technologies and major applications
- providing IT/IM training as a more integrated part of other training that directly applies to employee job functions
- increasing the availability of computer-based training
- leveraging online training available through Electronic Government providers

Strategy 4—Increase and improve communication about how IT/IM tools and services can be applied to NRC activities

The NRC will implement this strategy by such means as providing IT/IM tips via email, training, and the NRC's Web site, and the use of posters, articles, and other forms of communication. See also Strategy 3 under Goal 2 (Business Process) (Section 4.2) and Strategy 5 under Goal 1 (Information) (Section 4.1).

Strategy 5—Institutionalize a culture where new ideas for use of IT/IM are welcomed and pursued at all levels

Potential means include the following:

- holding focus groups with employees to get fresh ideas
- systematically capturing and analyzing suggestions and other data from trouble reports
- revising the NRC suggestion process

Strategy 6—Strengthen recruitment and retention and improve the skills, expertise, and capabilities of managers and staff with IT/IM responsibilities agencywide

Potential means include the following:

- using a variety of recruitment strategies and tools to attract a diverse, highly qualified applicant pool for IT/IM positions

- employing administratively determined pay rates, as needed, to increase the NRC’s success in competing for talent
- identifying skills gaps and provide training and development opportunities to address them
- offering retention incentives to individuals with critical skills

Measures for Goal 5

The NRC has chosen three measures to assess agency performance in meeting the IT/IM Human Capital goal, including a competency-based approach for assessing staff proficiency.

Both the strategies and measures for this goal have been developed in close coordination with NRC human resources staff to ensure consistency with the agency’s human capital planning efforts.

4.6 Goal 6: Customer Service

Customer Service: Achieve and sustain a high level of satisfaction with agencywide information services.

Strategies	Performance Measures
<ol style="list-style-type: none"> 1. Institutionalize a friendly IT/IM customer service culture. 2. Improve the effectiveness and efficiency of help services for the staff and the public. 3. Increase awareness of existing NRC IT/IM customer services and processes. 	<ol style="list-style-type: none"> 1. Improvement in satisfaction of key external stakeholder groups based on a single agency survey covering all IT/IM applications, services, and communications. 2. Improvement in satisfaction of internal stakeholders, based on a single agency survey covering all agencywide IT/IM processes, services, and communications.

The following are example means for executing each of the strategies that support the Customer Service goal.

Strategy 1—Institutionalize a friendly IT/IM customer service culture

As part of this strategy, the NRC intends to proactively involve customers in improvements to IT/IM processes, services, and communications. Means for identifying improvement needs may include surveys, best practice reviews, and stakeholder suggestions.

Strategy 2—Improve the effectiveness and efficiency of help services for the staff and the public

Example means for implementing Strategy 2 include the following:

- establishing integrated, tiered support for all external users
- expanding and improving IT/IM help services for internal users, including integration of all internal assistance resources
- raising the skill level of help-desk staff in the use of supported software

Strategy 3—Increase awareness of existing NRC IT/IM customer services and processes

The NRC will develop and execute a communications plan to help internal and external stakeholders become more aware of existing customer service resources.

Measures for Goal 6

As with Goal 1 (Information) (Section 4.1), the NRC has elected to use a direct measure of stakeholder satisfaction to assess performance in meeting the Customer Service goal. The agency will review existing customer service surveys and develop a single agencywide approach for measuring the satisfaction of internal and external stakeholders with IT/IM services. The NRC will design the two surveys to provide actionable results that can help to focus the strategies for this goal on the areas with the greatest impact.

Examples of services and applications that the external survey will cover are electronic submittals, the agency's document management system (ADAMS), the NRC public Web site, the National Source Tracking System, the Licensing Support Network, and the Public Document Room. The internal survey will address applications and services used by the NRC staff and will be structured to obtain input both from NRC offices and from employees at large.

The NRC intends to consider combining the surveys for the Customer Service goal with the surveys for the Information goal or, if that is not practical, alternating surveys so that each is administered every 2 years. The agency will also evaluate the benefits of point-of-service surveys versus annual surveys.

5. IT/IM Strategic Planning and Performance Measurement Process

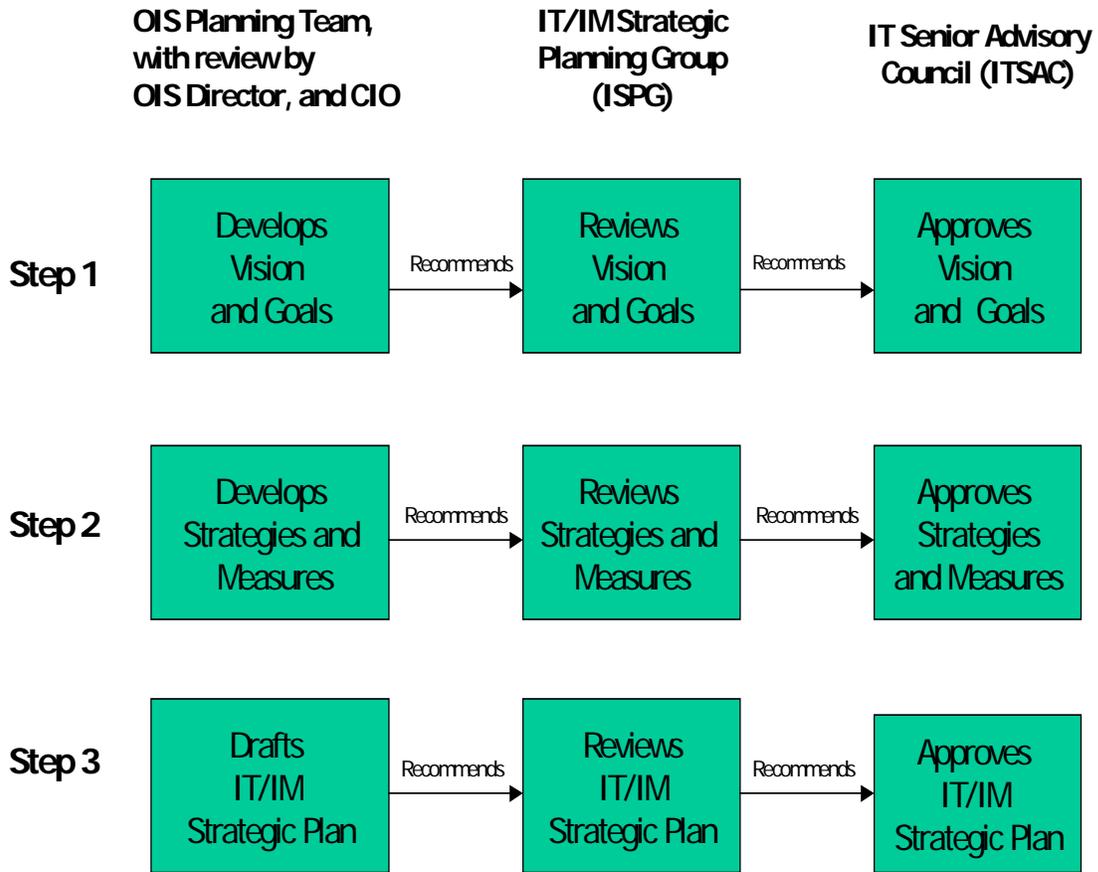
5.1 Description of the IT/IM Planning and Performance Measurement Process

In FY 2005, the NRC began a new IT/IM strategic planning process designed to more effectively involve internal stakeholders and to better integrate with other agency planning and budgeting processes. Figure 2 depicts the new process.

As shown in Figure 2, the process has three steps, each of which involves three stages. During the first step, the vision and goals are developed; during the second step, the strategies and measures are developed; and during the third step, the NRC IT/IM Strategic Plan is produced. At each step, OIS, the NRC's centralized IT/IM support office, develops an initial planning product. The IT/IM Strategic Planning Group, composed of senior managers representing the major NRC programmatic, regional, and support offices, next reviews this initial product. At the final stage of each step, the product receives the concurrence of the IT Senior Advisory Council, composed of the directors of the NRC's major programmatic and support offices as well as a regional administrator who represents the NRC's four regional offices. At the end of the planning process, the NRC publishes the vision, goals, strategies, and measures in the NRC IT/IM Strategic Plan, which goes through the final concurrence process, including CIO and approval by the CIO and EDO, before it is posted on the NRC's public Web site as required by OMB.

As part of the planning process, each IT/IM measure is assigned to a single responsible senior executive and tracked at the agency level in the NRC's Performance Budget. Offices with partial or total responsibility for an IT/IM measure also are required to track the progress of these measures in their annual office operating plans. Under the leadership of the CIO and Deputy CIO, the agency will monitor, track, and trend the progress of these measures over time with the goal of continuous improvement, conducting regular performance reviews to assess progress. The agency will use the results of these performance reviews to adjust the strategies, means, and measures where appropriate.

Figure 2 IT/IM Strategic Planning Process



Upon approval by the ITSAC, the IT/IM Strategic Plan goes through the final concurrence process, and is approved by the CIO and EDO for posting at the NRC's public Web site.

5.2 Relationship to Other Planning and Performance Measurement Processes

The NRC framework for performance-based management is the Planning, Budgeting, and Performance Management process that was established in January 1998 and updated in July 2002. This process implements the Government Performance and Results Act, which requires the submission of a Strategic Plan, Performance Budget, and Performance Report to Congress. The NRC has designed the new IT/IM strategic planning process to be an integral part of the agency's Planning, Budgeting, and Performance Management process. Annually, the Commission provides guidance on the agency's outcome-based performance measures, which indicate the level of success needed to achieve the agency's goals. The performance measures form the basis for the NRC to develop key planning assumptions, which identify major program drivers that would significantly influence the NRC's work activities and resource requirements. For each major activity, the agency identifies the major program outputs and output-based measures needed to achieve the outcome-based performance measures, taking into consideration the key planning assumptions. The NRC also identifies and prioritizes planned activities, including those for IT/IM, needed to achieve the outputs in each major activity and then prioritizes them based on their contribution to the goals. Lastly, the NRC determines the resource requirements needed to achieve each planned activity, which form the basis for developing the agency's budgetary requests for each program area. Each of the NRC's Performance Budget review levels takes into consideration those factors described above in relating outcome-based and output-based performance measures to resources in making budget recommendations and decisions.

Figure 3 illustrates the manner in which the agency's Strategic Plan and the IT/IM Strategic Plan drive the annual performance management and budgeting processes over a 3-year cycle. The update cycles for the agency Strategic Plan and IT/IM Strategic Plan are now synchronized so that major updates to the plans will occur in tandem, beginning with the FY 2007–2012 Strategic Plan. This will ensure that the IT/IM Strategic Plan and the IT/IM section of the agency Strategic Plan are aligned.

The figure shows how the annual performance review is used to help set performance targets for upcoming cycles. Beginning this year, the NRC's CIO will lead the annual performance review and target-setting process for the agency's IT/IM program, with the participation of the IT Senior Advisory Council.

**Figure 3 The NRC's 3-Year Strategic Planning Cycle
(Example for FYs 2008–2010)**



5.3 Roles and Responsibilities for IT/IM Strategies and Measures

The NRC's CIO has overall responsibility for the IT/IM strategic planning process. In addition, the NRC has assigned a senior executive sponsor for each strategy and measure in this Strategic Plan. That senior executive is responsible for working with representatives of other interested NRC organizations to develop tactical plans for implementing the strategy or measure. The responsible senior executive is also responsible for tracking the strategy or measure across the agency and reporting results during the annual IT/IM performance review. Directors of internal stakeholder organizations are responsible for tracking appropriate supporting initiatives and measurement inputs in their annual operating plans. The Deputy CIO directs the overall implementation of the plan, ensures coordination between strategy sponsors, and tracks progress of the measures for use in performance reviews.

5.4 Relationship to IT/IM Capital Planning and Investment Control

This IT/IM Strategic Plan will guide the selection of IT investments beginning with the FY 2009 budget formulation cycle. The NRC has implemented an IT CPIC process that ensures management of IT investments through the selection, control, and evaluation phases of the investment lifecycle. The IT/IM CPIC process directly supports Goal 3 (Investment Governance) (Section 4.3) strategies and measures.

The NRC will implement the strategic goals and measures described in this plan through the investments described in the NRC's IT Capital Plan, which are selected using the CPIC process. This IT/IM Strategic Plan will provide guidance and direction to the CPIC review bodies involved in the selection and prioritization of new major IT investments in the IT Capital Plan. These review bodies will also use it as a basis for approving the continuation of funding for existing major IT investments in the IT Capital Plan through the control and evaluation phases in the lifecycle of these investments.

For further information on the NRC's CPIC process and the CPIC review bodies, refer to NRC Management Directive and Handbook 2.8, "Project Management Methodology."

5.5 Relationship to Enterprise Architecture

The IT/IM strategic planning process is closely related to the NRC EA program. As the strategic planning process identifies the agency's mission priorities, the EA program looks at the agency's mission priorities through the various lenses of business processes, common services, and data, and develops approaches for how IT can optimally support, through shared data and system integration, the agency's business functions and ultimately the agency's mission priorities. Modernization and enhancements to existing systems as well as new IT development are based on EA recommendations and are reviewed as part of the CPIC process. Use of the NRC EA program not only ensures a focus on the agency's strategic and mission priorities but also promotes cost-effectiveness and efficiency by reducing duplication, promoting standardization, and increasing collaboration and data sharing. By tracking each IT investment and its contribution to the agency's IT/IM strategic goals and measures, the EA program assists the CPIC review bodies in selecting the investments that will have the most impact on achieving the agency's goals and ensuring that investments complement each other.

The NRC uses the Federal EA reference models to provide a common vocabulary that can be used to increase standardization, eliminate redundant expenditures, and increase collaboration. These goals are directly aligned with the IT/IM Strategic Plan's goals, strategies, and performance measures (see in particular Goal 3 (Investment Governance) (Section 4.3)).

5.6 Relationship to Federal Electronic Government Strategy

In December 2002, President Bush signed the Electronic Government Act (E-Gov). This act defined Governmentwide strategies for achieving better service to citizens and reducing IT costs for the Government (the annual Federal IT budget is \$65 billion). The NRC's IT/IM strategies, as reflected in this plan, fully support the Government's E-Gov program.

Governmentwide strategies for E-Gov have focused on (1) the development and implementation of Presidential Priority Initiatives (PPIs), (2) the development and implementation of the Line of Business (LoB) programs, (3) the establishment of a Federal Enterprise Architecture and of Enterprise Architectures at all Federal agencies, and (4) information security. A key characteristic of the E-Gov program is its focus on common needs and services that agencies across the Government share (e.g., payroll, human resource management, support for citizen access to Government services, records management, training, etc.). E-Gov programs largely focus on gaining efficiencies and improving the effectiveness of administrative and support functions. This Strategic Plan includes the NRC's strategies for further alignment with E-Gov under Goal 2 (Business Processes) (Section 4.2), and Goal 3 (Investment Governance) (Section 4.3).

The E-Gov program has identified 25 PPIs and 9 LoB² programs as of April 2006. On an ongoing basis, the NRC reviews E-Gov initiatives to assess their relevance to the agency and, as part of the CPIC process, screens all IT investments to ensure that they do not overlap with any E-Gov program. As a result of these reviews, the NRC is participating in 16 of the 25 PPIs and 6 of the 9 LoB programs. The NRC has established the position of Senior Advisor for Electronic Government and has institutionalized procedures to ensure that IT/IM investments comply with E-Gov guidance and objectives. These actions provide for management oversight and, in addition, the NRC maintains an E-Gov action plan with progress periodically reported to NRC management, OMB, the NRC's Inspector General, and GAO (on request).

E-Gov also requires agencies to focus on their programs for information security and Enterprise Architecture and to adopt new technologies and more efficient ways of doing business. Goal 1 (Information) (Section 4.1) and Goal 4 (Infrastructure) (Section 4.4) in this plan discuss the NRC's strategies for information security. Enterprise Architecture is a means for implementing several strategies focused on reducing duplication and increasing sharing of applications, data, and services (see Section 4.3). The NRC integrates new technologies that are being implemented across the Federal Government (e.g., IPV6 and the Federal identification card required by HSPD-12) consistent with Governmentwide guidance and available resources. The NRC's budget submittals provide information on the implementation of such technologies at the project level.

2 While LoBs and PPIs are both cross-cutting initiatives, the LoB program is much broader in scope and contains various PPIs. For example, an LoB addresses an entire area, such as human resources, while the e-training PPI is one of 10 human resource functions contained in the human resources LoB.

APPENDIX A

Relationship of IT/IM Strategic Goals to the Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC's FY 2004–2009 Strategic Plan

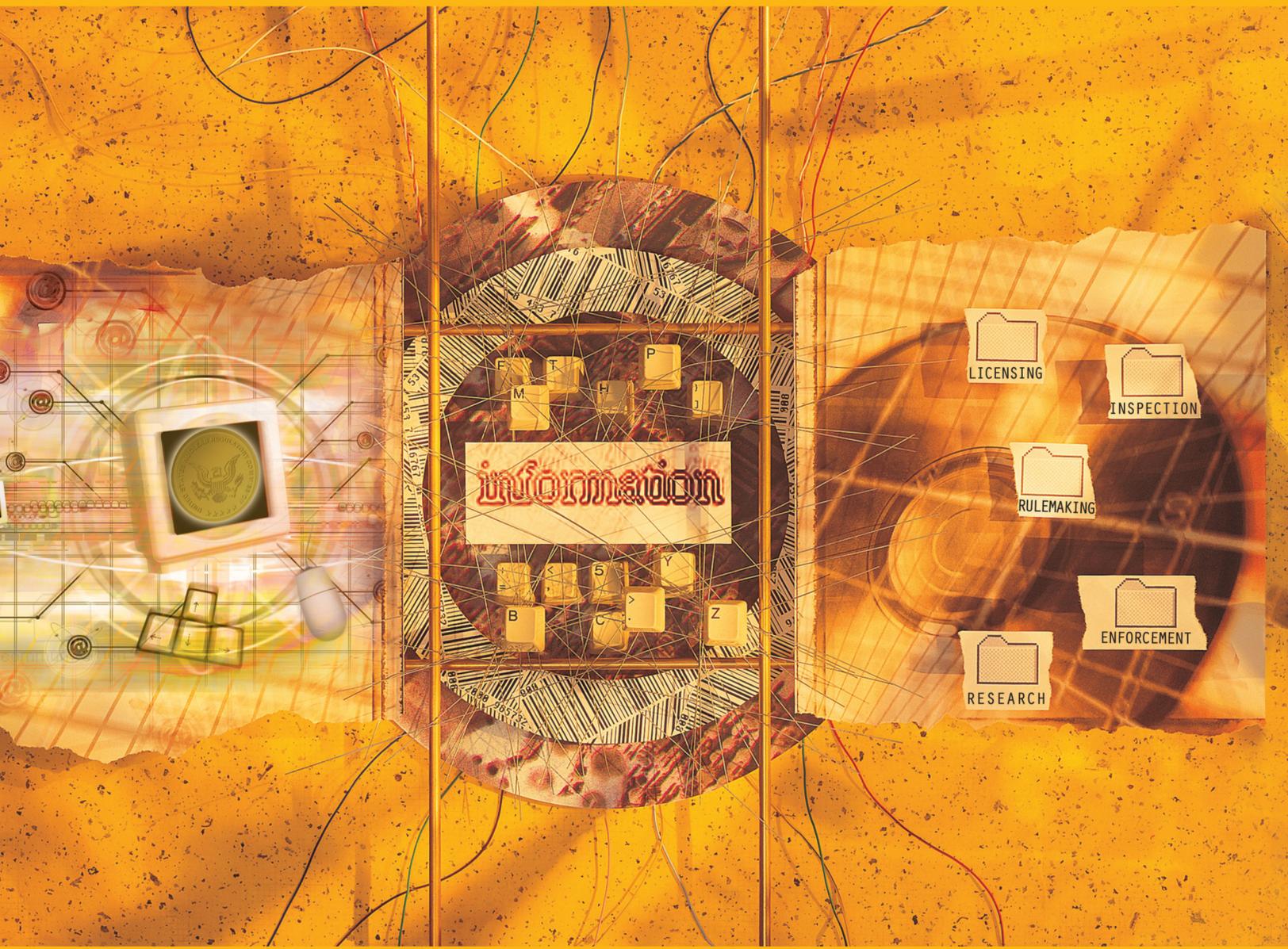
This appendix shows the relationship between specific outcomes, strategies, and means for each goal in the NRC FY 2004–2009 Strategic Plan and the six IT/IM strategic goals. An “X” indicates that the IT/IM goal has an associated strategy that supports the corresponding element of the NRC FY 2004–2009 Strategic Plan.

Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC FY 2004–2009 Strategic Plan	IT/IM Goals with Relevant Strategies					
	Information	Business Processes	Investment Governance	Infrastructure	Human Capital	Customer Service
SAFETY GOAL						
Develop systematic improvements in the NRC's regulatory program to ensure the safe use and management of radioactive materials (Strategy 2)	X	X				
SECURITY GOAL						
Use relevant intelligence information and vulnerability analyses to determine realistic and practical security requirements and mitigation measures (Strategy 1)	X			X		
Enhance the handling and storage of sensitive security and other pertinent information and the communication of such information to licensees and Federal, State, and local partners (Strategy 3)	X	X	X	X		
Collaborate with DOE and other agencies to develop and implement a national registry of radioactive sources of concern (Means)		X	X			
Identify and obtain access to critical electronic channels of security information to ensure that the NRC and its licensees maintain a current awareness of potential threats to licensed facilities and activities (Means)	X			X		
Identify and develop key IT investments that will enhance the storage, handling, and communication of sensitive security information both within and external to the agency (Means)		X	X	X		

Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC FY 2004–2009 Strategic Plan	IT/IM Goals with Relevant Strategies					
	Information	Business Processes	Investment Governance	Infrastructure	Human Capital	Customer Service
OPENNESS GOAL						
Stakeholders are informed and involved in NRC processes as appropriate (Strategic Outcome)	X	X		X		X
Provide accurate and timely information to the public about the uses of and risks associated with radioactive materials (Strategy 1)	X			X		
Enhance the awareness of the NRC's independent role in protecting public health and safety and the environment (Strategy 2)	X					
Provide accurate and timely information about the safety performance of the licensees regulated by the NRC (Strategy 3)	X			X		
Provide a fair and timely process to allow public involvement in NRC decisionmaking in matters not involving sensitive unclassified, safeguards, classified, or proprietary information (Strategy 4)	X	X		X		
Provide a fair and timely process to allow authorized (appropriately clear with a need to know) stakeholders involvement in NRC decisionmaking in matters involving sensitive unclassified, safeguards, classified, or proprietary information (Strategy 5)	X	X		X		
Obtain early public involvement on issues most likely to generate substantial interest and promote two-way communication to enhance public confidence in the NRC's regulatory processes (Strategy 6)	X	X				
Enhance the NRC's communication both within the agency and with the public, the media, and Congress (Means)	X	X		X		
Implement and maintain the high-level waste Licensing Support Network (Means)	X	X				X
Maintain and update the NRC's external Web site with timely, user-friendly information and continue to make site enhancements based on input from Web user satisfaction measurement (Means)	X	X		X		X
EFFECTIVENESS GOAL						
No significant licensing or regulatory impediments to the safe and beneficial uses of radioactive materials (Strategic Outcome)		X				
Foster innovation at the NRC to improve systematically the NRC's regulatory programs (Strategy 9)		X			X	
Expand the use of IT tools to improve efficiency throughout the agency (Means)		X			X	

Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC FY 2004–2009 Strategic Plan	IT/IM Goals with Relevant Strategies					
	Information	Business Processes	Investment Governance	Infrastructure	Human Capital	Customer Service
MANAGEMENT GOAL						
Continuous improvement in the NRC's leadership and management effectiveness in delivering the mission (Strategic Outcome)			X			
A diverse, skilled workforce and an infrastructure that fully support the agency's mission and goals (Strategic Outcome)				X	X	X
Use innovative recruitment, development, and retention strategies to achieve a high-quality, diverse workforce with the skills needed to achieve our mission (Human Capital Strategy 2)					X	
Maintain a dynamic program of training, development, and knowledge transfer to ensure that the NRC acquires and maintains the competencies needed to implement the Strategic Plan (Human Capital, Means)					X	
Continuously identify new and better ways of providing service (Infrastructure Management, Strategy 4)	X	X		X		X
Provide accurate, timely, and more useful financial information, including cost information, to agency managers, and use such information for NRC decisionmaking (Improved Financial Performance, Strategy 1)	X					
Use financial systems and processes to ensure that the NRC's financial assets are adequately protected consistent with risk (Improved Financial Performance, Strategy 2)		X	X	X		
Strengthen Enterprise Architecture to enhance agency IT/IM investment decisions (Expanded Electronic Government Strategy 1)			X			
Influence and implement Electronic Government initiatives that are applicable to the NRC (Expanded Electronic Government Strategy 2)		X	X			
Adopt Governmentwide IT solutions where cost effective (Expanded Electronic Government Strategy 3)		X	X			
Expand and strengthen information security capabilities to ensure that effective information protection is in place (Expanded Electronic Government Strategy 4)	X			X		
Make it easier for NRC employees to acquire, access, and use information to perform their work (Expanded Electronic Government Strategy 5)	X			X		

Goals and Selected Strategic Outcomes, Strategies, and Means in the NRC FY 2004–2009 Strategic Plan	IT/IM Goals with Relevant Strategies					
	Information	Business Processes	Investment Governance	Infrastructure	Human Capital	Customer Service
Improve the ability of the NRC to conduct business electronically with external entities (Expanded Electronic Government Strategy 6)		X		X		
Provide external stakeholders the ability to access the agency's publicly available information more easily and effectively (Expanded Electronic Government Strategy 7)	X			X		
Maintain a reliable and dependable set of core IT systems (Expanded Electronic Government, Means)				X		X
Use secure Web technology to improve service and access to information, and increase opportunities for employee telecommuting and other offsite work (Expanded Electronic Government, Means)	X			X		
Participate in Electronic Government initiatives that are applicable to the NRC (Expanded Electronic Government, Means)		X	X			
Communicate the NRC's vision, values, and expectations to address the full range of the NRC's strategic goals and to achieve alignment on desired outcomes (Internal Communications Strategy 1)	X					
Improve internal communication up, down, and across organizational units (Internal Communications Strategy 2)	X	X				
Redesign the NRC's internal Web site (Internal Communications, Means)	X					



information

LICENSING

INSPECTION

RULEMAKING

ENFORCEMENT

RESEARCH