U.S. Nuclear Regulatory Commission

FY 2004–2009
Strategic Plan

— Draft —

November 7, 2003

Contents

Appendices

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NRC Principles of Good Regulation

INDEPENDENT

Nothing but the highest possible standards of ethical performance and professionalism should influence regulation. However, independence does not imply isolation. The NRC will seek all available facts and opinions openly from licensees and other interested members of the public and consider the many and possibly conflicting public interests involved. The NRC will strive to base final decisions on objective, unbiased assessments of all information and explicitly state its reasons for the decisions.

OPEN

Nuclear regulation is the public's business, and it must be transacted publicly and candidly. The public must be informed about and have the opportunity to participate in the regulatory processes as required by law. Open channels of communication must be maintained with Congress, other government agencies, licensees, and the public, as well as with the international nuclear community.

EFFICIENT

The American taxpayer, the rate-paying consumer, and licensees are all entitled to the best possible management and administration of regulatory activities. The highest technical and managerial competence is required and must be a constant agency goal. The NRC must establish means to evaluate and continually upgrade its regulatory capabilities. Regulatory activities should be consistent with the degree of risk reduction they achieve. Where several effective alternatives are available, the option that minimizes the use of resources should be adopted. Regulatory decisions should be made without undue delay.

CLEAR

Regulations should be coherent, logical, and practical. There should be a clear nexus between regulations and agency goals and objectives whether explicitly stated. Agency positions should be readily understood and easily applied.

RELIABLE

Regulations should be based on the best available knowledge from research and operational experience. The agency should take into account systems interactions, technological uncertainties, and the diversity of licensees and regulatory activities so that risks are maintained at an acceptably low level. Once established, regulation should be perceived by all stakeholders to be reliable and not unjustifiably in a state of transition. The NRC's regulatory actions should always be fully consistent with written regulations and should be promptly, fairly, and decisively administered so as to lend stability to the nuclear operational and planning processes.

NRC Organizational Values

Integrity	... in our working relationships, practices and decisions.
Excellence	... both in our individual and collective actions.
Service	... to the public, and others who are affected by our work.
Respect	... for individuals' roles, diversity, and viewpoints.
Cooperation	... in the planning, management, and work of the agency.
Commitment	... to protecting the public health and safety.
Openness	... in communications and decision making.

About the NRC

By enacting the Energy Reorganization Act of 1974, the United States Congress established the U.S. Nuclear Regulatory Commission (NRC or the Agency to regulate the commercial, industrial, academic, and medical uses of nuclear materials in accordance with the Atomic Energy Act of 1954. In so doing, Congress also defined the NRC's primary mission, which allows the nation to use nuclear materials for beneficial civilian purposes while ensuring that public health and safety and the environment are protected.

Mission

> *License and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.*

The NRC is headed by five Commissioners, who are appointed by the President of the United States and confirmed by the U.S. Senate to serve for five-year terms. The President designates one of the Commissioners to serve as Chairman of the NRC. Under the leadership of the Chairman and Commissioners, the NRC issues and oversees licenses for the following commercial, industrial, academic, and medical uses of nuclear materials:

- ✓ 104 civilian nuclear power reactors
- ✓ 36 non-power (research and test) reactors
- ✓ 47 uranium recovery sites
- ✓ 10 major fuel cycle facilities
- ✓ Approximately 4,400 medical, industrial, and research materials licensees

The NRC, certain States, and those who hold licenses to use nuclear materials share a common responsibility to protect the environment, and public health, and safety. Because NRC licensees actually use nuclear materials, they have the primary responsibility to handle and utilize them safely.

Thirty-three States have signed Agreements with the NRC under which they assume regulatory responsibility for the use of nuclear materials for industrial, academic and medical purposes. These Agreement States implement NRC regulations for more than 75 percent of all U.S. materials licensees. The NRC works closely with Agreement States to ensure a sound and consistent regulatory framework.

The NRC has sole responsibility for regulatory activities related to nuclear power plants, research reactors and fuel cycle facilities and for all security requirements related to uses of nuclear materials. The NRC also has a role in managing certain international uses of nuclear materials. For example, the NRC issues and oversees licenses for the import and export of nuclear materials,

and participates in multilateral safeguards and security inspections. The agency works closely with its international counterparts in these areas.

In fulfilling its responsibilities, the NRC focuses on its guiding Vision, as follows:

Vision

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

The NRC's Mission and Vision provide the framework for the agency's strategies and goals, which in turn guide the allocation of resources across the agency.

The Evolving Landscape

The many industries that utilize nuclear materials are experiencing change, particularly in the areas of energy production and waste management. In the next five years the nation is likely to see the following changes occur:

- ✓ The majority of operating nuclear power plants will have applied for license renewals to meet the nation's growing demand for energy production.
- ✓ The U.S. Department of Energy (DOE) will submit an application to construct and operate the Nation's first high-level waste (HLW) repository.
- ✓ Increasing quantities of radioactive waste will be transported and held in interim storage or permanent disposal sites.
- ✓ The nuclear power industry will show a growing interest in licensing and constructing new nuclear power plants and fuel cycle facilities.
- ✓ The NRC, Agreement States and licensees will devote increasing attention to the security of nuclear materials and facilities, including nuclear non-proliferation activities.
- ✓ Increasing numbers of medical, academic and industrial entities will use nuclear materials under the oversight of Agreement States.

The backdrop to these industry-specific changes is one of elevated security and heightened public concern about safety. The NRC recognizes that recent issues, ranging from the potential for terrorist activities to public concern about the adequacy of emergency preparedness plans for areas surrounding nuclear power plants, have contributed to increased public dialogue about the uses of

nuclear materials. The NRC is committed to building public confidence by sharing openly with the public its information and decision-making processes to the full extent that the law allows.

The manner in which the NRC regulates is also evolving. As the agency continues to learn from operational experience and develops more effective ways of assessing risks, it is better able to allocate its resources where they will have the greatest effect. The NRC continues to seek innovative ways to improve its effectiveness and efficiency. Toward that end, the agency is incorporating the President's Management Agenda and is taking on specific management challenges that have been identified through ongoing program evaluations.

Ensuring the protection of public health and safety has always been, and continues to be, the NRC's preeminent goal. Accordingly, safety is the most important consideration in evaluating license applications, licensee performance, and proposed changes to the regulatory framework. Since security is an essential aspect of commercial nuclear operations and activities, it also is a primary consideration in agency actions. Even as the agency works to improve its effectiveness at communication, internal management controls, and efficiency, it will take no action that would conflict with or undermine its safety mission.

All of these trends and issues have informed the development of this Strategic Plan for Fiscal Years 2004–2009.

Organization of the Plan

Over the next several years, the NRC will focus on a single strategic objective and five general goals that support that objective, as described below.

Each general goal begins with a discussion about the evolving landscape of issues affecting that particular goal. In each case, this discussion is followed by a description of the strategies and significant means by which the agency will achieve the given goal. This discussion concludes with a brief description of the methods by which the NRC will assess its progress, including a description of success and the associated outcomes and performance measures.

Appendix A augments the discussion of the agency's strategic objective and general goals by discussing key external factors that could affect the agency's ability to effectively execute on this Strategic Plan.

Appendix B describes the schedule of planned program evaluations the agency will use to adjust and refine its performance. Appendix C illustrates the close linkage between the NRC's annual performance goals and measures and the general goals described in this Strategic Plan.

Strategic Objective

Enable the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes in a manner that
(1) protects public health and safety and the environment,
(2) promotes the security of our nation, and
(3) provides for regulatory actions that are effective, efficient, and open.

General Goals

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

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

III. Openness: Ensure openness in our regulatory process.

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

V. Management Excellence: Enhance the effectiveness and efficiency of corporate management to better support NRC's mission.

Long Term Outcomes

- ✓ *No acute radiation exposures resulting in fatalities.*
- ✓ *No releases of radioactive materials that result in significant radiation exposures.*
- ✓ *No releases of radioactive materials that cause significant adverse environmental impacts.*
- ✓ *No instances where licensed radioactive materials are used domestically in a manner inimical to the security of the United States.*
- ✓ *No significant licensing and regulatory impediments to the safe and beneficial uses of nuclear materials.*

I. Safety

Ensure Protection of Public Health and Safety and the Environment.

Ensuring the safe use of nuclear materials for civilian purposes is the NRC's primary goal. To achieve this goal, the NRC licenses individuals and organizations to use nuclear materials for beneficial commercial purposes, and then ensures that the performance of these licensees is at or above acceptable safety levels. This pertains to all licensees whether they use nuclear materials for power generation, medical therapies, industrial processes, or research. The NRC applies its regulatory activities in a graded manner consistent with the risk presented by specific uses, incorporating sound science and operating experience to ensure that licensees have adequate safety margins.

Risk is determined by answering three questions:
(1) "What can go wrong?"
(2) "How likely is it?"
(3) "What are the consequences?"

The domestic nuclear industries have continued to meet the NRC's outcomes. Nonetheless, new technologies, unforseen safety issues, or increased nuclear energy business activity may require new NRC strategies to ensure continuing safety performance in the future. Some important considerations in the coming years include:

- *Materials Degradation*

  - The majority of operating nuclear power plants are expected to apply for a 20-year extension of their license. The primary consideration in the license renewal process is to ensure that age-related degradation is monitored, managed, and controlled such that the current licensing basis will be satisfied for the renewal period. License renewal applications for aging plants call for analysis of the robustness, longevity and continued performance of reactor components as varied as electric cabling, instruments and controls, and piping, in addition to the containment structures themselves.

  - The importance of materials degradation issues is highlighted by recent experiences, including a cavity in a reactor vessel head which the licensee discovered during an inspection while the facility was shut down. Although this condition did not result in any release of radiation, lessons learned from it are resulting in increased inspection activities and expanded research into materials degradation issues.

- *HLW Transportation, Storage, and Disposal*

  - The DOE is preparing an application to establish the Nation's first repository for high-level nuclear waste at Yucca Mountain, Nevada. The NRC's preparation to review this application requires evaluation of a wide range of technical and scientific analyses.

- Sufficient interim storage capacity must be made available until a repository is licensed and ready to receive high-level waste. Toward that end, the NRC regulates various options for interim storage, including spent fuel pools on and dry casks at independent spent fuel storage installations (ISFSIs).

- The NRC must ensure the safety of spent fuel transportation casks. These casks must be evaluated, tested, and certified as being capable of storing and transporting spent fuel from reactor sites or ISFSIs to the national repository.

o *New and Evolving Technologies*

- New reactor designs are being submitted for review and possible licensing by the NRC. These next-generation designs require detailed analysis of their vulnerability to accidents and security compromises, as well as development of inspections, tests, analyses and acceptance criteria for their construction.

- The NRC is evaluating commercial gas centrifuge facilities that utilize new methods of manufacturing nuclear fuel for possible operation in the United States.

- The NRC is reviewing licensing applications for Mixed Oxide fuel (MOX) fuel facilities, to use fissile materials salvaged from decommissioned nuclear weapons to fabricate fuel assemblies for nuclear power plants, as a technique for reducing existing quantities of weapons-usable materials.

o *Operational Experience*

- The NRC continually reviews domestic and international operational experience, which can provide new information that can help identify potential new licensee-specific or generic safety issues.

- It is the responsibility of the NRC to ensure that its licensees are utilizing nuclear materials safely. The NRC is ensuring that safety is being regulated at an appropriate level by employing a multi-faceted approach to safety, which includes the following activities:

  • Developing and updating appropriate standards and Federal regulations to enable the safe use of nuclear materials, using defense-in-depth principles and appropriately conservative practices that provide a margin of safety.

  • Licensing individuals and organizations who intend to use nuclear materials for safe and beneficial civilian purposes.

  • Maintaining ongoing and consistent oversight of licensees, which includes inspection, enforcement and incident response activities, to ensure that they are following the applicable regulations and the conditions of their licenses to ensure safety, and to provide timely and appropriate event assessment and response.

In carrying out its safety mission, the NRC will continue to take the full range of actions at its disposal to ensure that a licensee's performance does not fall below acceptable levels. These actions range from ongoing licensing reviews and inspections to providing expanded oversight and enforcement, including issuing orders for corrective action, issuing shutdown orders, imposing civil penalties and/or criminal prosecution, or, when required, suspending or revoking the license.

The NRC recognizes that close cooperation among Federal agencies, State authorities (e.g., Agreement States), and local and Indian Tribal governments will lead to the most effective regulatory approach. The agency, therefore, works with other Federal agencies, like the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA), and DOE, the U.S. Departments of Justice, and Homeland Security (DOJ, and DHS), as well as State, local, and Tribal authorities to ensure appropriate coordination of safety and security measures at nuclear facilities.

Nuclear safety is, moreover, a global issue. As a result, the NRC closely cooperates with its international counterpart agencies and organizations, such as the International Atomic Energy Agency (IAEA), and other foreign regulatory bodies to share information, resources, best practices, and lessons learned from operating experience.

Strategies and Means

The NRC will employ the following strategies to ensure protection of public health and safety and the environment.

Safety Strategies

(1) Develop, maintain and implement licensing and regulatory programs to effectively protect public health and safety and the environment.

(2) Develop, maintain, and implement licensing and regulatory programs to resolve issues of radioactive waste management, including the high-level waste repository.

(3) Develop systematic improvements in NRC's regulatory program to ensure the safe use and management of nuclear materials.

(4) Use sound science and state of the art methods to establish risk-informed and, where appropriate, performance-based regulations.

(5) Effectively utilize regulatory programs and applied research to anticipate and resolve safety issues.

(6) Evaluate and utilize domestic and international operational experience and events to enhance decision-making.

(7) Conduct NRC oversight programs – including inspections – to monitor licensee performance, with a safety focus.

Means to Support Safety Strategies

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. The major programs include the licensing and inspection oversight programs, the incident response program, the Agreement States Program, and the ongoing research program. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Review all licensing requests (e.g., applications, amendments, renewals, decommissioning, termination and reactor operator) to confirm that proposed modifications are consistent with regulatory requirements. *[Supports Strategy 1, 2]*

- Implement the Reactor Oversight Process (ROP), the main program for overseeing nuclear power plant operation, to better identify significant performance issues and to ensure that licensees take appropriate actions to maintain acceptable safety performance. *[Supports Strategy 7]*

- Maintain trained inspectors who are stationed at the nuclear reactor and fuel cycle sites (resident inspectors) and in our four regional offices (regional inspectors). The resident inspectors oversee licensees' day-to-day activities, while region-based inspectors perform individual and team inspections in specialized areas. *[Supports Strategies 1, 2, 7]*

- Conduct emergency preparedness exercises that involve a wide array of Federal, State, and local agencies and emergency response personnel, and use cooperative intergovernmental relationships to appropriately balance and inform national response capabilities. *[Supports Strategy 7]*

- Maintain the readiness and capabilities of the NRC Operations Center and Regional Response Centers, which coordinate and monitor the agency's response to incidents and reportable conditions and licensees' actions to ensure safety at their facilities. *[Supports Strategy 7]*

- Conduct a program for the identification and resolution of reactor and materials generic safety issues (GSIs). *[Supports Strategies 3, 5]*

- Conduct research programs to identify, lead, and/or sponsor reviews that support the resolution of ongoing and future safety issues. Review safety issues that are emerging from the August 2003 blackout and develop recommendations to mitigate the effects of any future occurrences. Other safety research programs include evaluating the performance of spent fuel transportation casks under accident conditions, demonstrating a probabilistic risk assessment (PRA) methodology for spent fuel storage casks, investigating materials degradation issues and the safety of aging plants, evaluating the implications of international recommendations for radiation protection and new health effects research, risk-informing existing and future regulations, resolving issues related to reactor instrumentation and controls, verifying the increased safety of new reactor designs, and performing vulnerability assessments. *[Supports Strategies 3, 4, 5]*

- Review the effectiveness of reactor performance indicators (i.e., outcomes measuring success) in identifying plant performance issues, and make appropriate refinements, if needed, to assure the safety of licensed operations. Continue to collect and report licensee data for these performance indicators. *[Supports Strategy 3]*

- Conduct pre-licensing consultation and begin regulatory activity when the Yucca Mountain repository application is received. The activity level in this area could be impacted if DOE's application is significantly delayed, but is generally expected to increase significantly throughout the planning period. *[Supports Strategies 2, 3]*

- Complete technical reviews of new spent fuel dry storage systems to ensure that they are designed to protect against floods, tornadoes, high winds, temperature extremes, and other extreme events, and will be safe and secure for use at any licensed nuclear power plant site. *[Supports Strategy 2]*

- Conduct full-scale testing of spent fuel transportation truck and rail casks under accident conditions to verify the designs and modeling that has been performed. *[Supports Strategy 2]*

- Conduct periodic reviews of Agreement State programs to ensure that they are adequate and compatible with NRC's program. *[Supports Strategies 3, 4, 7]*

- Work closely with the Agreement States to develop consistent, risk-informed processes to review event information and identify safety issues for materials licensees. *[Supports Strategies 3, 4, 7]*

- Use the information from integrated safety analyses (ISAs) to implement a graded approach to monitoring and controlling activities at fuel fabrication facilities. The NRC will use the lessons learned from these analyses to develop more risk-informed oversight programs. *[Supports Strategies 3, 4]*

- Assess the key issues affecting the safe and cost-effective management of civilian low-level waste disposal to ensure that the uncertainty in obtaining uninterrupted access to licensed disposal sites does not adversely affect licensees' ability to operate and decommission their plants safely. There are three domestic low-level waste disposal facilities, located in Agreement States, that presently accept various types of low-level nuclear waste. *[Supports Strategies 3, 4]*

- Evaluate the risk significance of domestic and international operational events and trends in order to improve NRC programs. Specifically, the NRC will improve its ability to identify, prioritize, resolve, and communicate safety issues on a timely basis. *[Supports Strategies 3, 6]*

- Participate in domestic standards organizations, such as the American Society of Mechanical Engineers (ASME) and the Institute of Electrical and Electronics Engineers (IEEE), to develop consensus standards used by the nuclear industry, and with international organizations to determine whether substantial safety improvements can be identified and incorporated into NRC regulations. *[Supports Strategies 3, 6]*

- Work with international counterparts to exchange information, expertise, operating experiences and ongoing research, to recognize and respond to emerging technical issues and to promote best practices. Participate in the development and evaluation of international standards, to determine whether substantial safety improvements can be identified and incorporated domestically. *[Supports Strategies 3, 6]*

Assessment Method

The NRC's long-term safety outcomes are:

✓ *No acute radiation exposures resulting in fatalities*
✓ *No releases of radioactive materials that result in significant radiation exposures*[1]
✓ *No releases of radioactive materials that cause significant adverse environmental impacts*[2]

Success at achieving the safety goal will be evident based upon actual data for each of these parameters. The NRC will also use the following annual safety performance measures to assess trends in licensee performance related to the long-term safety goals.

- Number of significant events and incidents involving safety issues.
- Number of significant adverse industry trends in safety performance.
- Number of significant radiation exposures to the public and occupational workers from civilian uses and management of radioactive materials.
- Number of significant radiological releases to the environment from civilian uses and management of radioactive materials.
- Number of licensees with significant performance problems.

II. Security

Ensure the Secure Use and Management of Radioactive Materials.

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

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(1) "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.

(2) Releases that have the potential to cause "adverse impact" are currently undefined. As a surrogate, we will use those that exceed the limits for reporting abnormal occurrences as given by AO criterion 1.B.1 {normally 5,000 times Table 2 (air and water) of Appendix B, Part 20}.

Department of Homeland Security (DHS), that have assumed responsibility for protecting nuclear facilities and activities and responding to incidents when they occur.

A new Office of Nuclear Security and Incident Response (NSIR) was created as the office with lead responsibility for security. The NRC achieved many significant improvements in the secure use and management of nuclear materials since the attacks, and the NRC anticipates that our ongoing efforts in this area will continue to be substantial throughout the strategic planning period.

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 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 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. Although the agency's resource demands for enhancing security and related programs have begun to level off, they will not decline significantly until the NRC completes its review of the agency's safeguards program, revises the relevant requirements and ensures that a robust pipeline of new employees who are trained in security and safeguards techniques is in place.

Strategies and Means

The NRC will employ the following strategies to ensure the secure use and management of radioactive materials.

Security Strategies

(1) Use relevant intelligence information and vulnerability analyses to determine realistic and practical security requirements and mitigation measures.

(2) Conduct realistic oversight activities and exercises to evaluate licensee security performance.

(3) Enhance the handling and storage of sensitive security and other pertinent information and the communication of such information to licensees and States.

(4) Support interagency efforts to develop an integrated approach to the security of nuclear facilities and radioactive materials licensee efforts with appropriate federal, State, and local government assets.

(5) Use a risk-informed, graded approach to establish appropriate regulatory controls for the possession, handling, import, and export of radioactive materials.

(6) Coordinate with Federal and international counterparts to provide appropriate security and control to prevent the proliferation of special nuclear materials and nuclear technology and to reduce the potential for malevolent use of high risk radioactive material.

Means to Support Security Strategies

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Continue to conduct inspections through the enhanced Baseline Inspection Program to establish and confirm the security performance of licensees. The NRC will conduct followup reviews, inspections, or investigations as needed when security problems are identified. *[Supports strategies 2,5, and 6]*

- Increase the frequency of conducting full safeguards performance evaluations (including force-on-force exercises) at appropriate nuclear facilities that involve Federal, State, and local law enforcement and emergency planning officials. The NRC will increase the use of electronic aids in enhancing the realism of exercises. The NRC's current information on licensees' security programs and their ability to protect against the design-basis threat. *[Supports Strategies 1,2, and 4]*

- Complete vulnerability assessments and determine the consequences of a range of threats against existing safety, safeguards, and security requirements. The NRC will share its results with appropriate Federal partners to support an integrated national posture for protection of the Nation's critical infrastructure. *[Supports Strategies 1and 4]*

- Work with DHS to define, develop, and implement local, integrated response plans and a National Response Plan that integrates Federal, State, and local government assets. *[Supports Strategies 4 and 6]*

- Work with Agreement and non-Agreement States on security measures related to NRC licensed facilities and activities within their States. *[Supports Strategy 4]*

- Maintain ongoing communication with the intelligence community and DHS to include a substantially increased number of partners involved in integrated security response for nuclear facilities and activities. *[Supports Strategies 1,3, and 4]*

- Assess the threat environment to maintain an adequate regulatory framework, utilizing new information from domestic research and cooperative research programs with international partners. *[Supports Strategies 1,3,4,5 and 6]*

- Collaborate with DOE and other agencies to develop and implement a national registry of radioactive sources of concern and establish or improve the controls on risk-significant radioactive materials to prevent their malevolent use. *[Supports Strategies 1, 4 and 5]*

- Continue support and active involvement in international security activities, including support of IAEA non-proliferation initiatives and bilateral physical security inspections of special nuclear materials that originate in the United States. *[Supports Strategy 6]*

- Expand electronic access to various channels of integrated intelligence information. The information developed through this process is critical for the NRC and its licensees to maintain a current awareness of potential threats to licensed facilities and activities. *[Supports Strategies 1 and 3]*

- Conduct focused recruiting efforts to hire the full range of skills and expertise needed to operate in a potentially elevated threat environment. *[Supports Strategies 1-6]*

- Identify and develop key information technology (IT) investments that will enhance the storage, handling, and communication of sensitive security information both within and external to the Agency. *[Supports Strategy 3]*

Assessment Method

The NRC will have successfully achieved this goal when prevention and/or mitigation measures are in place for identified vulnerabilities and when clearly defined roles and responsibilities are in place for federal, state and local entities and licensees within the context of continued attainment of the following long-term security outcome:

✓ *No instances where licensed radioactive materials are used domestically in a manner inimical to the common defense and security of the United States*

To assess the agency's success in achieving the security goal, the NRC will use the following key annual performance measures:

- Number of significant events and incidents involving security issues.
- Number of identified losses or thefts of high-risk radioactive materials.

III. Openness

Ensure Openness in Our Regulatory Process

The NRC views nuclear regulation as the public's business and, as such, it must be transacted openly and candidly in order to maintain the public's confidence. The goal to ensure openness explicitly recognizes that the public must be informed about, and have a reasonable opportunity to participate meaningfully in, the regulatory process.

An example of recent efforts to ensure openness is highlighted below:

COMMUNICATIONS INVOLVING DAVIS BESSE

When corrosion was discovered in the Davis Besse pressure vessel head, the NRC responded in an open fashion. An oversight panel of experts was convened in April of 2002, to study the degradation problem, and their reports and meetings were regularly posted to our web page. In response to this incident, we have:

- ✓ Held over 50 public meetings, most in the vicinity of the plant
- ✓ Issued 60 news releases
- ✓ Published 13 monthly newsletters
- ✓ Developed a dedicated web page
- ✓ Briefed dozens of Congressional, State and local representatives
- ✓ Met with the Governor and other State officials
- ✓ Granted numerous media interviews
- ✓ Responded to thousands of e-mails, telephone inquiries and written correspondence from concerned citizens

Over the next several years, it is expected that the public's interest in nuclear facility safety, security, and nuclear waste will increase because of emerging issues. In particular, these issues include the anticipated DOE license application for an HLW repository at Yucca Mountain, transportation of spent fuel, the increase in the number of applications to extend the operating life of reactors, applications for a variety of fuel cycle facilities, and the increase in applications for reactor facilities.

Concern about terrorist attacks on nuclear facilities has increased dramatically in recent years. For instance, some members of the public believe that the close proximity of some nuclear power plants to urban centers might present serious difficulties in trying to evacuate large numbers of people. As a result, both security and emergency planning issues have become increasingly important to residents and government officials. The NRC must concentrate its

efforts on assuring the public that its rigorous oversight and defense-in-depth approach ensures that the public is adequately protected in the event of a potential terrorist strike or operating event, and that emergency plans surrounding the facility are well conceived and will work.

In light of increased terrorist activity worldwide, the agency has had to reexamine its traditional practice of releasing almost all documents to the public. While all important safety information is shared with the public, the NRC will continue to work with DHS and other agencies to develop and implement any new guidance or requirements that may impact our strategy to communicate with the public in an open fashion. Although a small amount of information that clearly could assist potential terrorists will be withheld, the NRC will continue to make the majority of information under review available to the public.

The focus on security has arisen at a time of renewed interest in nuclear power. Some utilities are applying to the NRC for early site permits for new reactors and existing plants are extending their licenses so they can operate for an additional 20 years. As the NRC processes these requests, it will face a significant public confidence challenge associated with concerns about vulnerability to many different types of terrorist attacks without disclosing information that could substantially aid terrorists.

Internal and external openness are equally important to NRC management. The Inspector General's 2002 Safety Culture and Climate Survey revealed that the majority of NRC employees who responded to the survey feel that the agency has not established a climate where its staff can challenge traditional ways of doing things, or that innovative ideas can fail without penalty. A task group, which the agency formed to address key areas for improvement in the survey results, suggested that focusing on empowerment (defined as the amount of authority employees have to do their jobs and the trust they receive from management) could be a pivotal factor in improving employee perception in this area.

While some members of the public may not agree with the agency's actions or decisions, the NRC firmly believes that transparency in its communications and early and meaningful public involvement in the regulatory process is critical. The agency is committed to keeping the public informed and believes that a responsible, effective regulatory process must include an involved and informed public.

The NRC will employ the following strategies to ensure openness in its regulatory processes.

Openness Strategies

(1) Provide accurate and timely information to the public about the uses of and risks associated with radioactive materials.

(2) Enhance the awareness of the NRC's independent role in protecting public health and safety and the environment.

(3) Provide accurate and timely information about the performance of the licensees regulated by the NRC.

(4) Foster a work environment that values differing opinions and rewards safety-conscious thinking.

(5) Provide a fair and timely process to allow the public to comment on and influence NRC decision-making in matters not involving Safeguards Information, classified information or proprietary information.

(6) Provide a fair and timely process to allow authorized stakeholders to comment on and influence NRC decisionmaking in matters involving safeguards information, classified information or proprietary information.

(7) Obtain early public involvement on issues most likely to generate substantial interest, and promote two-way communication to enhance public confidence in our regulatory processes.

Means to Support Openness Strategies

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Establish and support a Director of Communications reporting to the Chairman, responsible for enhancing the agency's communications internally and with the public, the media, and Congress. *[Supports Strategies 1, 3, 4, 5, 6]*

- Actively engage the public, particularly local residents, before actions are taken. For example, before expected early site permit applications are received for nuclear power reactors, inform residents of the agency's role in the regulatory process, and the schedule involved in the licensing process. *[Supports Strategies 1, 4, 6]*

- Host public meetings at headquarters and in Nevada regarding the proposed HLW repository at Yucca Mountain, including workshops to assist in furthering an understanding of the NRC's regulatory role. *[Supports Strategy 6]*

- Implement and maintain the HLW Licensing Support Network, a system that stores documents related to the HLW repository, while creating an effective means for making such documents and publications available to the public. *[Supports Strategies 2, 4]*

- Hold annual workshops, open to the public (such as the Regulatory Information Conference and the Nuclear Safety Research Conference), to bring together diverse groups of stakeholders to discuss the latest trends in industry performance and cutting-edge research. *[Supports Strategies 1, 3, 4, 5]*

- Improve communications about licensee operating events and their significance, using easily understood risk comparisons, plant features, and regulatory controls to put any situations into their proper context. Develop and implement agency-wide guidelines that will improve

the agency's ability to communicate risk insights and other health and safety issues with stakeholders. *[Supports Strategy 3]*

- Develop communication plans for key program activities that include key messages and creating time lines for public involvement opportunities. *[Supports Strategies 1 and 4]*
- Increase the quality and quantity of communications with the staff by redesigning the internal Web site, expanding e-government, emphasizing frequent feedback, and committing to face-to-face, two-way communications between management and staff. *[Supports Strategies 3 and 4]*
- Maintain and update the external web site with timely information. *[Supports Strategies 1, 3, and 4]*
- Continue to provide training opportunities for the staff to develop more effective communications skills. *[Supports Strategies 4]*

Assessment Method

Openness will be achieved successfully when public feedback on major agency actions indicates that the public understands the agency's Mission and has had opportunities to effectively express its views.

The NRC plans to develop and implement a means of gauging public confidence in its activities to identify areas that require more public engagement and dialogue. This may be achieved with a survey or other measurement instrument, for which findings will be reflected in new or revised program initiatives.

The NRC will have successfully achieved internal openness when feedback from NRC employees indicates that the agency's work environment fosters innovative ideas and creates an atmosphere where they feel comfortable speaking up about any issue — particularly those involving safety.

For internal stakeholders, the NRC will rely on the Inspector General's survey of the NRC's safety culture, as well as individual office measurement techniques, to determine its success in making the agency an envisionment where innovation and safety conscious thinking are emphasized and rewarded.

✓ *(The NRC is currently working to develop a long term outcome for this goal; we specifically invite public comment to assist in articulating a measurable outcome for openness.)*

To assess the agency's success in achieving the openness goal, the NRC will adopt annual performance measures in the following areas:

- Extent to which the public understands the NRC mission.
- Extent to which NRC employees can raise safety issues and challenge traditional ways of doing business.

- Extent to which the public has an opportunity for effectively expressing its views.
- Extent to which authorized stakeholders have an opportunity for effectively expressing their views on matters involving Safeguards Information, classified information, or proprietary information.
- Extent to which non-sensitive, unclassified NRC information that is relevant to the regulatory process is provided to the public in an accurate and timely manner.

IV. Effectiveness

Ensure That NRC Actions Are Effective, Efficient, Realistic and Timely.

Over the next several years, the NRC anticipates a significant change in agency workload. Licensing requests of unprecedented technical complexity are expected, including the Department of Energy's application to license the Yucca Mountain HLW repository and requests to license the next generation of nuclear reactors. Security demands are becoming more complex, requiring diverse professional expertise and close coordination with other Federal, State, and local agencies. Increases in both the frequency and the extent of stakeholder involvement in the NRC's regulatory processes are expected as Federal e-government initiatives take hold and the agency works to improve openness.

These and other challenges are coming at a time when the role of the Federal Government is changing. Initiatives such as the Government Performance and Results Act (GPRA) and the President's Management Agenda (PMA) are challenging Federal agencies to become more effective and efficient, and to justify their budget requests with demonstrated program results. The drive to improve performance in Government, coupled with increasing demands on the NRC's finite resources, clearly indicates a need for the agency to become more effective, efficient, realistic, and timely in its regulatory activities.

Effectiveness means achieving the desired outcome from a program, process, or activity.

The concept of effectiveness applies to all levels of the agency, from individual actions to programs to agency wide initiatives. At the program level, for example, effectiveness refers to the degree of success in achieving program goals with the resources provided, and requires careful alignment of planned activities to intended program results to ensure that the right work is being performed.

Efficiency refers to productivity, quality and cost characteristics that together define how economically an activity or process is performed. Improved efficiency can be demonstrated by obtaining the same results with fewer resources or better results with the same resources.

The NRC recognizes that the efficiency of its regulatory process is important to the regulated community, as this influences both the regulatory uncertainty and costs borne by licensees and applicants. Efficiency is also important to other stakeholders, such as Federal, State, and local

agencies and the public, due to its key role in allowing the NRC to meet stakeholder expectations regarding timely, accurate, and responsible agency actions. While the NRC will never compromise safety for the sake of increased efficiency, the agency works to improve the efficiency of its regulatory processes whenever practicable.

Timeliness, a key product of efficiency, means acting within a predictable time frame and without unnecessary delays.

NRC actions must be timely and realistic to support the agency's goal of enabling the safe, beneficial use of radioactive materials. The timeliness of agency actions is key to providing a stable, reliable, and responsive regulatory environment that does not impose undue burden. The agency has established timeliness goals for many of its regulatory activities and regularly tracks its performance in meeting these goals.

The NRC has developed a risk-informed regulatory implementation plan (RIRIP), which applies risk analysis to a wide variety of agency programs. The RIRIP considers the goals and objectives of the agency's Strategic Plan and the Probabilistic Risk Analysis Policy Statement, provides guidance for selecting appropriate NRC programs for risk-informing, and outlines a process for applying risk insights to targeted programs.

Realistic regulatory activities focus on safety and security while avoiding unnecessary conservatism.

NRC regulations have been established using defense-in-depth principles and conservative practices that, in some cases, have led to requirements that may be in excess of what is necessary to reasonably ensure the protection of public health and safety. Advances in risk analysis and scientific understanding, as well as lessons learned through operating experience, are used to help the agency focus on the most safety significant requirements and, in certain instances, to relax those requirements that offer little safety benefit. Throughout the regulatory process, the NRC seeks to impose only those requirements that are necessary to achieve the agency's mission. The NRC is largely funded through fees, and is committed to improving its programs and processes to help control the financial burden imposed on the regulated community. However, emerging demands and external factors may still require the agency to increase fees to fulfill its safety mission.

The NRC does not believe that efforts to improve efficiency, timeliness, and realism conflict with the agency's safety and security goals. In fact, initiatives related to this general goal should serve to sharpen the agency's focus on safety and security ensure that available resources are optimally directed at the mission. Successful initiatives will require an internal culture that embraces change, questions traditional practices, empowers staff to make decisions, and encourages innovation and diverse views. While the NRC has taken the initial steps to foster such a culture, a continuing commitment from agency management will be needed to ensure lasting change.

The NRC will employ the following strategies to ensure that its actions are effective, efficient, realistic, and timely.

Effectiveness Strategies

(1) Use state-of-the-art methods and risk insights to improve the effectiveness and realism of NRC actions.

(2) Improve NRC regulation by adding needed requirements and eliminating unnecessary requirements.

(3) Use performance-based regulation to minimize unnecessarily prescriptive requirements.

(4) Use realistically conservative safety-focused research programs to resolve safety-related issues.

(5) Enhance cooperation with State and Tribal governments and international counterparts.

(6) Minimize unnecessary regulatory or jurisdictional overlap.

(7) Anticipate challenges and respond quickly to changes in the regulatory and technical environment.

(8) Make timely regulatory decisions.

(9) Foster innovation among the NRC staff to systematically improve the NRC's regulatory programs.

Means to Support Effectiveness Strategies

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Conduct systematic evaluations to assess the effectiveness of the agency's programs in relation to its strategic and general goals. In addition to dedicated internal resources, the NRC will retain outside expertise, as needed, to provide objective, independent assessments and recommendations to improve program performance. *[Supports Strategies 1,2,6,7 and 8]*

- Use independent, internal agency resources such as the Office of the Inspector General (OIG) and, where deemed appropriate by the Commission, relevant advisory committees to critically review whether programs are effective, processes are efficient, and regulatory decisions are sound and realistic. *[Supports Strategies 1,2,6,7 and 8]*

- Establish specific goals for continuous improvement in programs and processes. *[Supports Strategies 8 and 9]*

- Select several key processes each year for detailed review to determine the most efficient means of delivering desired program outcomes. *[Supports Strategies 2,6,8 and 9]*

- Use risk-informed and performance-based approaches, where appropriate, to ensure that all elements of the NRC regulatory programs are conducted commensurate with an appropriate level of risk. For example, we may make some NRC regulations less prescriptive and provide licensees with increased flexibility in meeting certain regulatory requirements. *[Supports Strategies 1,2,3 and 4]*

- Implement initiatives to encourage staff innovation and diverse views, to empower staff to make decisions, and to effectively manage change. *[Supports Strategy 9]*

- Expand the use of information technology tools to improve efficiency throughout the agency. This is further discussed in the Management Excellence section of this plan under "Expanded Electronic Government". *[Supports Strategies 1 and 8]*

- Work cooperatively with the Agreement States through the National Materials Program to agree on priorities for enhancing the regulatory framework for materials licensees. *[Supports Strategies 5,6 and 7]*

- Encourage stakeholders to identify actions, such as inadequate guidance or an untimely response to stakeholder needs, which may have resulted in unnecessary cost or uncertainty. Consider suggested improvements to the regulatory framework and will take action to address regulatory practices that impose unnecessary burden. *[Supports Strategies 2,6 and 7]*

- Participate in information exchanges and pursue cooperative research, both domestically and internationally, to avoid duplication of effort, leverage resources and share facilities wherever possible. *[Supports Strategies 5 and 6]*

- Incorporate effectiveness and efficiency measures in the NRC planning and performance measurement structure throughout the agency. *[Supports Strategy 8]*

Assessment Method

The NRC has established the following long-term outcome for this area:

✓ *No significant licensing and regulatory impediments to the safe and beneficial uses of radioactive materials*

Many factors could contribute to licensing and regulatory impediments, such as an inadequate regulatory framework, an ineffective program, or an inefficient process that results in an untimely regulatory decision. The NRC is committed to proactively addressing such issues through initiatives related to this goal, and will also monitor the regulated community for instances where agency actions may have unnecessarily impeded licensees and applicants. In conducting this

monitoring, the NRC may consider the results of self-assessments and external assessments, feedback from stakeholders (including the public), and Congressional direction as well as other sources.

The NRC will have successfully achieved this general goal when the agency establishes appropriate baselines and demonstrates a pattern of continuous improvement in the effectiveness, efficiency, realism, and timeliness of NRC actions; when all NRC programs meet a standard for effectiveness that considers program purpose, desired outcomes, and demonstrated results relative to the strategic and general goals; and when monitoring efforts identify no significant licensing and regulatory impediments to the safe and beneficial uses of radioactive materials.

The agency will adopt annual performance measures in the following areas to assess its success in meeting this general goal:

- Indicators of more effective and efficient activities and realistic decisions
- Timeliness indicators on regulatory decisions
- Indicators that an NRC program has potentially impeded the safe and beneficial uses of radioactive materials

Goals and measures will incorporate a philosophy of continuous improvement in the effectiveness, efficiency, realism, and timeliness of NRC actions. Baseline information will be established as needed to assess progress relative to this goal.

V. Management Excellence

Enhance the Effectiveness and Efficiency of Agency Management to Better Support the NRC's Mission.

The NRC strives for management excellence comparable to the agency's technical excellence. In setting this goal, the Commission considered the management and support needed to achieve the agency's other general goals, preexisting management challenges, and other initiatives identified by central organizations such as GAO, OMB, and Office Personnel Management (OPM). This goal includes strategies for the management of human capital, competitive sourcing, improved financial management, expanded electronic government, budget and performance integration, and internal communications.

Over the next 5 years, the NRC must deal with a variety of issues across the management spectrum. Among these, the greatest challenges will be to acquire, sustain and develop the agency's highly skilled and diverse technical workforce and to strengthen its information technology (IT) infrastructure. The NRC will support its workforce with a high quality, cost-effective administrative infrastructure. Strategies will focus on enhancing individual and collective productivity with the appropriate tools, and employing innovative and sound management practices.

Strategies and Means

The NRC will employ a variety of strategies, resources, skills, processes, and technologies to enhance the effectiveness and efficiency of agency management in the following areas:

i. Management of Human Capital

The NRC's technical, engineering, legal, and administrative workforce possesses detailed knowledge and a host of distinct technical skills that enable the agency to fulfill its mission. To maintain this expertise and respond to emerging needs, the NRC will need to build both its leadership corps and its staff in areas as diverse as nuclear engineering, nuclear safeguards and security, risk assessment, health physics, geochemistry, hydrology, materials engineering, law, information technology, financial management and other administrative skills. These, individuals will achieve their greatest effectiveness when they are deployed appropriately, are fully engaged in fulfilling the NRC's mission requirements, and are suitably recognized for their performance. For this reason, the agency periodically assesses its management of human capital, looking for ways to make improvements that will better support the achievement of the mission.

Human Capital Strategies:

(1) Optimize the agency's organizational structure to facilitate achievement of performance goals.

(2) Use innovative recruitment, development, and retention strategies to achieve a high quality, diverse work force with the skills needed to achieve our mission.

(3) Develop the agency's current and future leaders.

(4) Strengthen managerial and supervisory accountability for setting individual and organizational performance expectations and for providing timely and complete feedback.

(5) Foster a work environment that is free of discrimination and provides opportunities for all employees to optimally use their diverse talents in support of the NRC's mission and goals.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Conduct periodic, systematic analyses of the organizational structure to ensure that the staff is deployed in the most effective and efficient way to respond to changing mission requirements. *[Supports Strategy 1]*

- Forecast the staffing levels and critical skills needed to accomplish ongoing and new work, including the specific expertise needed to review license applications for new types of

facilities and to regulate domestic nuclear security in the changing threat environment. *[Supports Strategy 2]*

- Use executive development and succession planning to create a diverse cadre of skilled leaders who are committed to achieving the agency's mission, goals, and strategies. We will continue to offer an Intern Program for qualified entry-level employees, a Leadership Potential Program to begin the development of future leaders, and a Senior Executive Service (SES) Candidate Development Program, to develop and maintain a pool of high-potential candidates who are prepared for appointment to SES positions. *[Supports Strategy 3]*

- Maintain a dynamic program of employee training and development to ensure NRC staff acquire and maintain the competencies needed to implement the strategic plan. *[Supports Strategy 2]*

- Devise an accountability system with defined roles, responsibilities, desired outcomes, and a process for evaluation and continuous improvement. *[Supports Strategy 4]*

- Measure the extent to which recruitment, development, and retention strategies increase and maintain the diversity of the staff at all levels. *[Supports Strategy 5]*

- Provide equipment, facilities, and administrative services to maintain a healthy, safe, secure, and accessible physical work environment. *[Supports Strategy 5]*

ii. Competitive Sourcing

The NRC will continue the competitive acquisition of skills and services as an element of a comprehensive human capital strategy. The agency will focus its use of competitive sourcing to ensure efficiencies and bolster needed skills for the coming years.

Human Capital Strategies:

Use competitive sourcing to improve efficiency of commercial activities while ensuring organizational effectiveness.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- We will implement a competitive sourcing plan based on criteria for identifying commercial activities to be considered for competition.

- We will promptly award contracts for commercial activities identified when performance by the private sector is determined to be more cost-effective than in-house performance.

iii. Improved Financial Performance

Accurate and timely financial information to support operating and policy decisions is critical to achieving the NRC's effectiveness goal. The effectiveness of the agency's financial management practices directly affects the fees borne by licensees, as well as the burden on the taxpaying public.

Human Capital Strategies:

(1) Provide accurate, timely, and more useful financial information including cost information to agency managers and use such information for NRC decision-making.

(2) Use financial systems and processes to ensure that the NRC's financial assets are adequately protected consistent with risk.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Assess needs and identify opportunities for the agency's next generation of core financial management system software. *[Supports Strategies 1and 2]*

- Evaluate options and identify opportunities to streamline the process for establishing license fees. *[Supports Strategy 1]*

- Improve the agency's approach to cost accounting and develop financial and automated tools to help managers integrate cost information into decisions. *[Supports Strategies 1and 2]*

iv. Expanded Electronic Government

The NRC's IT infrastructure is facing heightened demands from both the agency's staff and external stakeholders:

- Increased requirements to conduct business electronically, manage information more effectively, be open in our agency processes, and ensure information security
- The expanding needs of a mobile workforce
- The unprecedented requirements to provide a vast amount of information in the Licensing Support Network and Electronic Hearing Docket for the HLW repository proceedings.

Human Capital Strategies:

(1) Strengthen enterprise architecture, while first considering optimal business processes, to better inform agency information technology/information management investment decisions.

(2) Participate in and influence E-government initiatives that are applicable to the NRC.

(3) Adopt government-wide information technology 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 staff 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 easily access the agency's publicly available information.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Maintain a reliable and dependable set of core information technology systems to support agency operations. *[Supports Strategies 4, 5 and 6]*
- Develop and implement a digital data management system that will support the growing workload of future licensing and adjudicatory processes. *[Supports Strategy 6]*
- Use secure Web technology to improve service and access to information. *[Supports Strategy 7]*
- Provide an IT infrastructure that supports increasing opportunities for employee telecommuting and other offsite work, including that of inspectors. *[Supports Strategies 3 and 5]*
- Implement a new enterprise architecture for the agency. *[Supports Strategy 1]*

v. Budget and Performance Integration

The GPRA calls upon Federal agencies to closely align their resource allocation decisions with performance outcomes. The NRC has put in place several key processes to ensure such alignment, and is now focusing its efforts on effective implementation.

Human Capital Strategies:

1) Improve linkage of individual and organizational performance standards to NRC's Budget and Performance Plan.

2) Use and improve the Planning, Budgeting, and Performance Management (PBPM) process including better integration of performance results into NRC planning and budgeting.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Improve the performance management system for senior executives by aligning individual performance objectives with organizational and agency goals. This system will lead to improved communications with employees regarding how individual goals and accomplishments link with those of the agency. *[Supports Strategy 1]*

- Develop and conduct training on improved methods for internal goal alignment and performance measurement. *[Supports Strategy 1]*

- Charge the full budgetary cost of work to mission accounts and activities. *[Supports Strategy 2]*

- Use the insights gained from OMB's Program Assessment Rating Tool (PART) and other program assessments to ensure alignment of program outcomes to long-term agency goals and to inform the resource allocation process. *[Supports Strategies 2]*

vi. Internal Communications

NRC management recognizes that it must strengthen its internal communication methods to support a culture of openness and innovation. These results of a recent IG survey supports this need. Therefore, we are working to enhance internal communications and the work environment to improve the agency's efficiency and effectiveness.

Human Capital Strategies:

1) Improve the effectiveness of communications throughout the NRC.

2) Enhance communication about NRC's vision, values (integrity, excellence, service, respect, cooperation, and commitment), and expectations to address the full range of NRC's strategic goals and to achieve alignment on desired outcomes.

Means to Support Human Capital Strategies:

The NRC has developed and implemented a number of programs and initiatives in order to continue to successfully achieve this goal. Examples of important activities to be conducted in these programs during this strategic planning period include:

- Establish a Communications Council to plan, coordinate, and implement our strategies for improving internal communications. This Council will comprise office representatives who share best practices, create multiple communications paths for important issues, and help to ensure that timely and accurate information is provided to everyone in the agency. *[Supports Strategy 1]*

- Take advantage of opportunities in daily work, meetings, and other activities to communicate and reinforce the agency mission and values. This will be accomplished in a variety of ways, including messages on the internal Web site, e-mail messages to the staff, newsletters, announcements, posters, and other printed material. *[Supports Strategy 2]*

Assessment Method

The NRC will have successfully achieved the goal of management excellence when the effectiveness and efficiency of agency management are demonstrated by the following states.

Management Excellence

Management of Human Capital	A skilled, diverse, high-performing workforce that can be deployed as needed to meet current and emerging mission requirements.
Competitive Sourcing	Cost-effective performance of commercial activities.
Improved Financial Management	Improved accountability through annual financial statements that receive an unqualified audit opinion
Expanded Electronic Government	A secure IT infrastructure that supports agency business processes, improves stakeholder access, and operates efficiently
Budget and Performance Integration	Seamless integration of the budget and performance plan
Internal Communications	Internal communications that meet employee expectations for understanding the agency's mission and their role in achieving it

The NRC will assess the effectiveness and efficiency of its management strategies through an annual, systematic self-assessment process patterned after the success criteria defined in the management scorecards from the Office of Management and Budget. The agency will also augment this self-assessment process with information from the periodic OIG safety culture and climate survey, as well as individual office assessments that target specific areas for improvement, and informal feedback.

✓ *The NRC is working to develop Long Term Outcomes for this goal; we specifically invite public comment to assist in articulating measurable outcomes for Management Effectiveness.*

Appendix A. Key External Factors

The NRC's ability to achieve its goals depends on a changing equation of industry operating experience, national priorities, market forces, and availability of resources. This appendix discusses significant external factors, all of which are beyond the control of the NRC and could have an impact on the agency's ability to achieve its strategic goals.

Receipt of New Reactor Operating License Applications
If the NRC receives a substantial increase in new reactor operating license applications, significant reallocation of resources would be necessary to provide 1) timely review of the applications, and 2) inspection of construction activities. In addition, the high level of public interest likely to be associated with such applications would require significant efforts by the NRC to keep stakeholders informed and involved in the licensing process.

Major Operating Incident (domestic or international)
A significant safety incident could cause an unexpected increase in safety and security requirements, which would likely change the agency's focus on initiatives related to its five general goals until the situation was stabilized. Because NRC stakeholders (including the public) are highly sensitive to many issues regarding the use of radioactive materials, even events of relatively minor safety or security significance may sometimes require a response that consumes considerable agency resources.

Significant Terrorist Incident
A significant terrorist incident anywhere in the United States could significantly alter the Nation's priorities. This, in turn, could affect significance levels, a need for new or changed security requirements, or other policy decisions that might impact the NRC, its partners, and the industry it regulates. In particular, the impact on State regulatory and enforcement authorities might affect their ability to work with the NRC in achieving its goals.

A significant terrorist incident at a nuclear facility or activity anywhere in the world would likely result in similar changes in the NRC's priorities, and potentially in U.S. policy regarding export activities, the NRC's role in international security, and/or requirements for security at U.S. nuclear power plants.

Timing of DOE Application for the High-Level Waste Repository at Yucca Mountain
The proposed repository for spent nuclear fuel represents a major effort for the NRC in planning, review, analysis, and ultimately decision making regarding the licensing of the facility. The agency has begun to ramp up this effort in response to pre-application activities by the U.S. Department of Energy. The timing of DOE actions will heavily influence the NRC's resource allocation decisions over the next several years. Acceleration or delay in DOE's activities will most likely require reprogramming of NRC resources, which may affect other programs that are directly associated with achieving the agency's goals.

U.S. Legislative Initiatives

Numerous legislative initiatives under consideration by Congress could have a major impact on the NRC. In particular, the Nuclear Security Act, Homeland Security initiatives, and evolving energy policy will undoubtedly affect the agency's priorities and workload. Increasing interest in diversified sources of energy and energy independence could lead to an increase in license applications for nuclear power plants. Any attendant increase in resources devoted to license review and analysis might affect the agency's ability to achieve its goals for this planning period.

In addition, over the past several years, Congress has engaged in substantial discussion and review regarding the possibility of transferring oversight responsibility for some nuclear facilities from DOE to the NRC. The Strategic Plan does not account for such a transfer, which would significantly affect the agency's resource allocation, workload, and human capital choices during this planning period.

Appendix B. Program Evaluations

- Schedule is being developed concurrently -

Appendix C. Linkage Between Annual Performance Goals and Measures and Strategic Plan Goals

-- PLACEHOLDER for Diagram --

Appendix D. Glossary

Agreement State: a State that has signed an agreement with the NRC allowing the State to regulate the use of certain radioactive materials within its borders.

Design-Basis Threat (DBT): a profile of the type, composition, and capabilities of an adversary. The NRC and its licensees use the DBT as a basis for designing safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material. The DBT is described in detail in Title 10, Section 73.1(a), of the *Code of Federal Regulations* [10 CFR 73.1(a)].

Defense-in-Depth: an element of the NRC's Safety Philosophy that employs successive compensatory measures to prevent accidents or mitigate damage if a malfunction or accident occurs at a nuclear facility. The defense-in-depth philosophy ensures that safety will not be wholly dependent on any single element of the design, construction, maintenance, or operation of a nuclear facility. The net effect of incorporating defense-in-depth into design, construction, maintenance, and operation is that the facility or system in question tends to be more tolerant of failures and external challenges.

Effectiveness: ability to achieve the intended outcome(s) of an activity, program, or process. A program cannot be considered effective if it is not meeting its objectives and achieving the intended outcome(s).

Efficiency: the ability to act effectively with a minimum of waste, expense, or unnecessary effort. Efficiency embodies a combination of productivity, cost, timeliness, and quality.

Enterprise Architecture (EA): a strategic information asset base which (a) defines the mission; (b) the information necessary to perform the mission; (c) the technologies necessary to perform the mission; and (d) the transitional processes for implementing new technologies in response to changing mission needs. In addition, EA includes (a) a baseline architecture, (b) a target architecture, and (c) a sequencing plan. EA is used to inform and guide IT planning and investment decisions.

Force-on-Force Exercise: an element of the NRC's Safety Philosophy that employs successive compensatory measures to prevent accidents or mitigate damage if a malfunction or accident occurs at a nuclear facility.

High-Level Waste (HLW): also called "spent fuel," HLW encompasses the highly radioactive materials that are produced as byproducts of the reactions that occur inside nuclear reactors. Such wastes take one of two forms, becoming either (1) spent (used) reactor fuel when it is accepted for disposal, or (2) waste materials that remain after spent fuel is reprocessed.

Low-Level Waste: items that have become contaminated with radioactive material or have become radioactive through exposure to neutron radiation. This waste typically consists of contaminated protective shoe covers and clothing, wiping rags, mops, filters, reactor water treatment residues, equipment and tools, luminous dials, medical swabs, injection needles, and

syringes. The radioactivity can range from just above background levels found in nature to very high levels found in certain cases (such as parts from inside the reactor vessel in a nuclear power plant).

Outcome Goals: long-term performance goals; the intended outcomes of specific strategies.

Performance Assessment Rating Tool (PART): An instrument used by the Office of Management and Budget to inform budgeting decisions, support management, identify design problems, and promote performance measurement and accountability.

Performance-Based: an approach that establishes performance and results as the primary basis for decisionmaking. Performance-based regulation presumes that (1) measurable (or calculable) parameters exist to monitor performance, (2) objective criteria have been established to assess performance, (3) licensees have flexibility to determine how to meet the established performance criteria in ways that will encourage and reward improved outcomes, and (4) a framework exists in which the failure to meet a performance criterion, while undesirable, will not in and of itself constitute or result in an immediate safety concern.

Public: the community at large.

Risk-Informed: An approach to decision-making in which risk insights are considered with other factors such as engineering judgement, safety limits, redundancy, and diversity. Risk insights are gathered from asking three questions: "What can go wrong?;" "How likely is it?;" and "What are the consequences?" A risk assessment is a systematic method for addressing these three questions as they relate to understanding likely outcomes, sensitivities, areas of importance, system interactions, and areas of uncertainty.

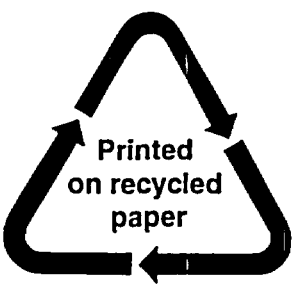
Spent Fuel: see *High-Level Waste.*

Standard: technical requirements and recommended practices for performance of any device, apparatus, system, or phenomenon associated with a specific field.

Stakeholders: a subsection of the general public that comprises a targeted population that has a specific interest in a given topic. (Should the NRC decide to measure public confidence at some point in the future, it may be worthwhile to target specific stakeholder groups, such as residents living near facilities, non-government groups, media, local officials, etc.)

Uprates: the process of increasing the maximum power level at which a commercial nuclear plant may operate.

Yucca Mountain Repository: a proposed underground facility at Yucca Mountain, Nevada, for the permanent disposal of high-level waste produced from nuclear power plants and the Nation's nuclear weapons production activities.



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