

November 18, 2002

MEMORANDUM TO: Chairman Meserve

FROM: Hubert T. Bell/RA/  
Inspector General

SUBJECT: INSPECTOR GENERAL'S ASSESSMENT OF THE MOST  
SERIOUS MANAGEMENT CHALLENGES FACING NRC  
(OIG-03-A-02)

### **SUMMARY**

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

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

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

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

### **DISCUSSION**

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

## **CHALLENGE 1**

### ***Protection of nuclear material and facilities used for civilian purposes.***

NRC's, and the industry's, highest priority must be the protection of public health and safety. In light of the events of September 11, 2001, the NRC has recognized the need to reexamine past security strategies to ensure that the right protections are in place for the long term. One action that NRC has taken following the terrorist attacks included enhanced access control at nuclear power plants. In the Chairman's opinion, this enhancement may be one of the most effective means of preventing a successful attack, because an insider could provide significant assistance to an attacking force. The agency has also completed an initial assessment of power reactor vulnerabilities to the intentional malevolent use of commercial aircraft in suicidal attacks, as well as initiating a broad-ranging research program to understand the vulnerabilities of various classes of facilities to a wide spectrum of attacks.

NRC's security program contains many facets to protect against the design basis threat. The design basis threat defines the threat against which power plants and selected fuel cycle facilities must be capable of defending. The National Journal gave nuclear power plants a grade of B-. It stated that Congressional critics found problems with the design basis threat, stating that the attacks on plants were too specific and only covered attacks by small groups of potential terrorists. In addition, on September 12, 2002, the Project on Government Oversight issued a report on nuclear power plant security stating that the NRC has done little to effectively improve security at nuclear power plants since September 11, 2001. It asserted that, most significantly, the NRC has not toughened the design basis threat security regulations, which specify the number of outside attackers and inside co-conspirators that nuclear facilities must be prepared to defeat.

NRC has developed a new Threat Advisory and Protective Measures System in response to Homeland Security Presidential Directive-3. When a new Homeland Security Advisory System threat condition is declared, NRC will promptly notify affected licensees of the condition and refer them to the predefined protective measures that NRC developed for each threat level. The new system for NRC licensees was formally communicated on August 19, 2002.

In response to the attacks on September 11, 2001, NRC established the Office of Nuclear Security and Incident Response on April 7, 2002. The office was intended to consolidate security, safeguards, and emergency response into one area. The objectives of this new office are to: (1) improve communications and coordination within the agency and with external entities, including Federal and State agencies; (2) streamline communications; (3) improve the timeliness and consistency of information; and (4) provide a more visible point of contact and effective counterpart to the Office of Homeland Security, as well as other Federal agencies.

### **Related Office of the Inspector General Work**

#### Investigations

- Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage

- NRC's Regulatory Oversight Over the Control of Special Nuclear Material at Millstone Unit 1

**CHALLENGE 2**

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

NRC faces numerous challenges in implementing a risk-informed approach for nuclear power plants as well as for nuclear material licensees. The NRC developed the Reactor Oversight Process to move toward a more-risk informed regulatory philosophy. The processes included developing and implementing a risk-informed inspection program to provide increased focus on aspects of plant performance, which has the greatest impact on safe plant operation. The Reactor Oversight Process focuses on seven specific cornerstones: initiating events; mitigating systems; barrier integrity; emergency preparedness; public radiation safety; occupational radiation safety; and physical protection. The premise is that safety is maintained if the licensee performs acceptably in these cornerstones.

The agency is studying other performance indicators to see if it can establish an even better connection to risk. NRC is also seeking performance indicators that will help predict emergent problems, and thereby permit their avoidance, rather than to apply performance indicators that merely confirm existing problems.

According to the Chairman, overall, the oversight process has continued to meet its goals of providing more objective and understandable assessments of plant performance while focusing on aspects of the operation that are the most safety-significant. However, he acknowledged that improvements can be made in the way NRC assesses performance indicators and in the indicators themselves. There is also a need to improve the risk-assessment tools and techniques that are employed in the significance determination process. He also expressed that the accomplishments to date represent only a few baby steps, but NRC is committed to pursue risk-informing regulation initiatives over the long term. Risk-informed regulation will be a major area of focus for NRC over a number of years.

NRC's most significant initiative is still unfolding — to risk-inform the so-called "special treatment" requirements for nuclear plant systems, structures and components. Special treatment refers to the regulatory requirements in such areas as technical specifications, quality assurance, and environmental qualification requirements. The outcome of this effort is expected to be a fundamental change in the criteria used to determine when special treatment requirements should be imposed.

## **Related Office of the Inspector General Work**

### Audits

- Audit of NRC Oversight of its Federally Funded Research and Development Center
- Review of NRC's Significance Determination Process

### Investigations

- Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage

## **CHALLENGE 3**

### ***Acquisition and implementation of information resources.***

Federal agencies' acquisition and implementation of information resources are crucial in (1) supporting critical mission-related operations, and (2) providing more effective and cost-efficient government services to the public. NRC, like other Federal agencies, continues to struggle in its efforts to obtain a good return on these investments. In recent years NRC has created massive databases of publicly-available information including the Agencywide Documents Access and Management System (ADAMS), the Electronic Information Exchange and the NRC website.

ADAMS is the agency's electronic recordkeeping system that maintains the official records of the agency. The system continues to pose concerns for NRC. To remedy some of the deficiencies, NRC has planned updates for ADAMS, which will include upgrades to both agency workstations and server software, and includes full text search capability on the main library and a new web-based search software to access public documents.

The Office of Management and Budget (OMB) cited NRC in its annual report to Congress as one of a few agencies that had no violations of the Paperwork Reduction Act and had achieved burden reductions at a time when most agencies increased their burden to the public. In addition, NRC outlined its e-government and Government Paperwork Elimination Act strategy in a report to OMB last October. The strategy included the:

- implementation of all of the electronic transactions reported under the Government Paperwork Elimination Act,
- extending the digital signature capability,
- moving to electronic document management from creation to retirement,
- moving to a single, fully integrated human resources information management system, and
- leveraging the web for external and internal communications.

As a key component of its electronic government activities, NRC officials stated that the agency launched the Electronic Information Exchange production system and is developing an Electronic Information Exchange rule that will allow NRC licensees and others to electronically submit almost all documents and data via this exchange system as well as by CD-ROM, E-mail, and fax.

During fiscal year 2001, NRC made significant progress in redesigning NRC's public website with substantial guidance and assistance from a web redesign steering committee chartered by the Executive Director for Operations and the Chief Information Officer.

While the agency has made strides in implementing information resources, additional improvements are needed.

### **Related Office of the Inspector General Work**

#### Audits

- Use of the Internet at NRC
- Review of NRC's Accountability and Control of Software
- Review of ADAMS
- Review of NRC's Protection of Social Security Numbers
- Independent Evaluation of NRC's Information Security Program as Required by the Government Information Security Reform Act for Fiscal Year 2002

#### Investigations

- Misuse of NRC Computer to Access Pornographic Material

### **CHALLENGE 4**

#### ***Administration of all aspects of financial management.***

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

NRC received an unqualified opinion on its financial statements for the eighth consecutive year during fiscal year 2001. Although NRC closed out four reportable conditions from the fiscal year 2000 financial statement audit, the agency had two new reportable conditions. One of the

new reportable conditions, which also is a material weakness, is related to implementing the accounting policies for the agency's software capitalization policy. While progress has been made to tighten controls over financial management processes, further improvements are needed.

During the first quarter of fiscal year 2002, NRC implemented the human resources, payroll, and time and labor modules of the Human Resources Management System. However, NRC has yet to achieve its vision for a fully integrated, agency-wide financial management system.

### **Related Office of the Inspector General Work**

#### Audits

- Audit of AID-Funded Activities
- Audit of Unbilled Costs by an NRC Contractor
- Review of Materials Licensee Fees
- Independent Auditors' Report and Principal Statements for the Years Ended September 30, 2001 and 2000
- Review of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2001
- Review of NRC's Simplified Acquisition Procedures
- Audit of NRC Oversight of Its Federally Funded Research and Development Center

#### Investigations

- NRC Employee Use of NRC Pager for Personal Business
- False Claims by NRC Materials Licensee
- Theft by NRC Contractor

### **CHALLENGE 5**

#### ***Clear and balanced communication with external stakeholders.***

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

NRC has made improvements in the quality, clarity, and credibility of its communications with all stakeholders. The agency's initiatives include the development of: (1) communication plans to improve interactions with internal and external stakeholders on important projects and events; (2) a redesigned website to provide a richer variety of information; (3) formal training courses to provide NRC staff with the necessary skills; and (4) newsletters for highly visible topics.

Another important initiative that the agency has underway is to enhance public participation through the three types of NRC meetings open to the public. Category 1 meetings invite the public to observe the business portion of the meeting. It then gives the public an opportunity to communicate with the NRC *after* the business portion of the meeting, but before the meeting is adjourned. Category 2 and Category 3 meetings afford the public more opportunities to ask questions and provide comments at the meeting. NRC officials created a page on the external website which provides information such as explaining the three different categories, as well as feedback forms.

Public confidence is an NRC strategic goal. However, the agency has no baseline upon which to measure how well it delivers the value intended. The challenge for NRC is to afford all stakeholders, including the public, with appropriate and meaningful access to its regulatory process. This access must be provided in a committed, stipulated, consistent, timely, and unambiguous manner that fosters confidence in the agency. At the same time, the agency is also faced with the responsibility of protecting sensitive security and safeguards information from unauthorized access.

No matter how much the NRC staff knows and how much it learns, there is still the possibility — in fact, the likelihood — that unanticipated events will occur. A recent example is the corrosion of the reactor vessel head at Davis-Besse. When these types of events arise, the sharing of pertinent information among NRC, licensees, and the public is indispensable in helping to determine what happened, whether other plants may be similarly vulnerable, and how to prevent such problems from arising in the future.

### **Related Office of the Inspector General Work**

#### Audits

- Audit of AID-Funded Activities
- Review of Materials Licensee Fees
- Review of ADAMS
- Review of NRC's Significance Determination Process

#### Investigations

- Improper Release of Proprietary Financial Information
- Review of NRC's Staff Approval of the Carolina Power and Light Request for Expansion of High-Level Radioactive Waste Storage

**CHALLENGE 6**

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

Internal communication is a fundamental and necessary aspect of conducting agency business. NRC needs effective internal communication channels and methods to support its critical health and safety mission. Information is the key resource that links managers with staff, the organization, and other internal stakeholders — enabling people to do their jobs and to work cooperatively and efficiently in a coordinated manner. However, unless the information is organized in a useful manner, it is merely data and not meaningful.

NRC has undertaken actions to improve its internal communications over the past year. Actions taken include (1) the continuing use of the electronic “EDO Updates,” a new type of communication between the Executive Director for Operations and the entire staff; (2) a new link on the internal Web, which includes step-by-step instructions for how to create communication plans and instructions on conducting public meetings, and (3) a communications bulletin for managers and supervisors that is issued twice a month to help managers communicate better both within and between departments.

**Related Office of the Inspector General Work**

Audits

- Use of the Internet at NRC
- Review of the Materials Licensee Fees
- Review of ADAMS
- Review of NRC's Significance Determination Process
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Investigations

- Improper Release of Proprietary Financial Information

**CHALLENGE 7**

***Integration of regulatory processes in a changing external environment.***

NRC faces a number of challenges related to the changing regulatory and business environment. For example, an NRC working group identified and assessed the possible effects of nuclear industry consolidation on NRC's oversight functions and responsibilities. The group concluded that the existing NRC organizational structure, policies, guidance, and regulations are adequate at this time. However, staff continues to monitor experience and feedback from the current oversight processes and will consider further study should significant changes occur in the industry. NRC also faces such challenges in the following areas.



### High-level Waste

Several Federal agencies have a role in the disposal of spent nuclear fuel and other high-level radioactive waste under the Nuclear Waste Policy Act of 1982. NRC expects to receive an application in the next few years from the Department of Energy for a permit to construct a permanent repository for high-level waste at Yucca Mountain. NRC anticipates that if an application to build the repository is submitted, the administrative proceeding will be massive — perhaps as vast and complex as any the Federal Government has ever seen. The significant challenge for NRC is ensuring that all parties and decision makers have timely access to filings and exhibits.

### Reactor License Renewal

Many electric generating companies have sought, and others are expected to follow suit, to renew the licenses of their facilities rather than decommissioning the plants. NRC staff has met or bettered the target schedules for the four license renewal reviews completed to date while maintaining the necessary technical rigor. In addition, renewal applications for eight plants are currently under review and four more applications are expected before the end of the current fiscal year. This workload will continue to challenge the agency to complete the review in a timely manner.

### Applications to Increase Power Output

NRC expects to receive a number of applications to increase approved reactor power output in the near future. As a result, NRC is looking at ways to improve the efficiency of the process, while maintaining the high technical quality of its reviews. NRC has been significantly challenged over the last few years with the increasing number of new requests and with many licensees requesting larger power increases.

## **Related Office of the Inspector General Work**

### Audits

- Audit of AID-Funded Activities
- Audit of NRC Oversight of Its Federally Funded Research and Development Center
- Review of NRC's Significance Determination Process

## **CHALLENGE 8**

### ***Maintenance of a highly competent staff (i.e., human capital management).***

NRC needs a dynamic, diverse workforce with the appropriate knowledge, skills, and abilities to achieve its public health and safety mission. Human capital management — a process for identifying the human capital required to meet organizational goals and developing the strategies to meet these requirements — provides managers with a framework for making

sound staffing decisions. The Chairman recognizes this challenge and stated that "We need to focus attention on assuring the appropriate skill mix for the NRC."

In fiscal year 2001, the OIG released a report on NRC's workforce planning. NRC is making a concerted effort to strengthen the agency's approach to workforce planning; however, the agency lacked a comprehensive, agencywide workforce plan. NRC has made an effort to respond to this challenge over the past year. NRC is undertaking a significant effort to develop administrative processes and to standardize its strategic workforce planning initiative. Actions include developing and implementing a Strategic Workforce Planning Communication Plan and integrating strategic workforce planning into the Planning, Budgeting, and Performance Management process for the fiscal year 2004 budget. Strategic workforce planning needs will be identified by the offices and strategies to address these needs will be developed. Also by fiscal year 2004, NRC plans to have a fully integrated process and an automated skills database to support human capital management throughout the agency.

The agency recognizes that the nuclear industry is rapidly changing. There are new technologies and new ways for the staff to learn new skills to do their day-to-day business. NRC, like many other Federal agencies, is facing the likelihood of increased retirements and

the resulting loss of important knowledge and expertise. The agency needs to meet this challenge in order to address all other management challenges. Continued efforts are needed to ensure that the agency's workforce planning efforts become institutionalized and continue to get the high level attention they have received over the past year.

#### **Related Office of the Inspector General Work**

##### Audits

- Review of NRC's Use of Credit Hours

##### Investigations

- Staff Bias in Connection with NRC Workforce Planning Contract

#### **CHALLENGE 9**

##### ***Protection of information.***

This is a new standalone management challenge for the agency. After September 11, 2001, concerns that information in NRC databases could be used for malicious purposes, caused NRC to take several steps. NRC denied access to certain documents normally publicly available and NRC changed its interactions with the public to ensure that sensitive information was not being disclosed. These steps were taken because of the view that information contained in the databases may be of interest to those with malicious intentions and potentially significant harm could result from inappropriate disclosure.

Actions taken included adding additional barriers and warning messages to the ADAMS software to prevent the release of sensitive documents or packages. In addition to protecting information in ADAMS, a sensitivity warning message is shown at the bottom of every page on the agency's internal Web site to serve as a reminder that sensitive information should not be made publicly available. This message is consistent with the current agency-approved guidance regarding the release of information to the public, and is especially important given recent developments, which have heightened NRC's safeguards and security awareness.

NRC has made efforts to strengthen information protection. Nevertheless, recent audits continue to show weaknesses that place critical operations at risk of fraud, misuse, and disruption. In October 2002, OIG released a report on NRC's handling and marking of sensitive unclassified information and found that the current guidance does not provide adequate controls to protect information from inadvertent public disclosure. Specifically, protective measures were left to the discretion of the document originator.

Additionally, in the past two years, OIG has evaluated the agency's information security program and practices. OIG assessed compliance with requirements and related information security policies, procedures, standards, and guidelines. During the fiscal year 2002 Government Information Security Reform Act evaluation, OIG found that NRC has made substantial progress in improving its information security program. Despite this progress, the security program is not well integrated and is not consistently implemented across the agency. NRC officials have not clearly defined the responsibility and accountability for all aspects of the information security program within its organizational structure.

A recent audit disclosed a lack of full adherence to agency policy covering the use of social security numbers. In addition, the agency's practices of its Freedom of Information Act and Privacy Act responsibilities have been inconsistent, resulting in both the inadvertent release of information and inadequate document searches.

### **Related Office of the Inspector General Work**

#### Audits

- Review of NRC's Protection of Social Security Numbers
- Independent Evaluation of NRC's Security Program as Required by the Government Information Security Reform Act for Fiscal Year 2002
- Review of NRC's Handling and Marking of Sensitive Unclassified Information

#### Investigations

- Inappropriate Release of Proprietary Financial Information
- Staff Bias in Connection with NRC Workforce Planning Contract

**CONCLUSION**

While nine distinctive management challenges have been identified, the challenges are also interdependent. NRC needs to continue the important activities it has underway to address these most serious management challenges. To emphasize the importance I place on these concerns for the agency, I have prepared and distributed a pocket sized card detailing these major management challenges confronting the NRC to all employees.

cc: Commissioner Dicus  
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