December 17, 2001

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-02-A-06)

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 (IG) of each Federal agency summarize what he or she considers to be the most serious management and performance challenges facing his or her respective agency and assess the agency's progress in addressing those challenges. In accordance with the *Reports Consolidation Act of 2000*, I submit my annual statement assessing the most serious management challenges facing 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 IGs. 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.

DISCUSSION

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

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

NRC's primary mission is to ensure that public health and safety are protected in the many different peaceful uses of nuclear energy. In light of the attacks of September 11, 2001, the agency needs to (1) reassess whether new terrorist threats require a change to the physical security standard of nuclear material and facilities, and (2) maintain a rigorous approach in its reviews of physical security and safeguards programs at NRC-regulated nuclear facilities. At the same time, NRC's oversight should be conducted in a manner that ensures public safety and aligns with the agency's goal to reduce unnecessary regulatory burden.

NRC's security program contains many facets to protect against the design basis threat (DBT). The DBT defines the threat against which power plants and selected fuel cycle facilities must be capable of defending. NRC's DBT does not currently include an attack using an airplane. As a result, the agency is re-evaluating the threat assessment methods and approach used to define the DBT. NRC is also reviewing the measures needed to protect against this new manifestation of terrorism. Furthermore, the agency will continue its efforts to coordinate with law enforcement and intelligence agencies.

NRC's immediate response to the attacks of September 11, 2001, was to advise nuclear power plants and fuel facilities to go to the highest level of physical security. The agency also fully staffed its Incident Response Center around the clock. The Chairman further tasked the agency to conduct a comprehensive study on how the threat of terrorism affects NRC and those it regulates. In response, the agency has established a special task force and identified the group's role, responsibilities, and objectives.

Prior to the events of September 11, 2001, NRC already had a program, the Operational Safeguards Response Evaluation (OSRE), in place for assessing physical security at nuclear power plants. In July 2001, the agency also announced the start of a 1-year pilot of the Safeguards Performance Assessment (SPA) program, a process by which a power-reactor licensee tests the effectiveness of key elements of its physical security program. NRC announced that it would use the pilot program to determine if the SPA had merit as a possible replacement program for OSRE. In the meanwhile, the agency continues to run both programs.

While the agency has initiatives underway to ensure the protection of nuclear material and facilities, NRC must remain focused on public safety and, at the same time, not increase licensees' unnecessary regulatory burden.

CHALLENGE 2
Development and implementation of an appropriate risk-informed and performance-based regulatory oversight approach.

NRC continues to make its regulatory framework more risk-informed so that areas of highest risk receive the greatest focus. Where appropriate, NRC is also making its regulatory framework more performance-based by (1) using measurable outcomes to monitor systems and licensee performance and (2) focusing on the results as the primary basis of regulatory decision-making. This approach allows licensees more flexibility in determining how to meet NRC's regulatory requirements. The overall goals of this shift are to enhance safety decision-making, improve efficiency, and reduce resources devoted to issues with low safety significance. To be successful, NRC's stakeholders (particularly staff members responsible for implementing this approach) must fully understand its dynamics and the agency's goals.

NRC has made progress over the past year to transition to a more risk-informed and performance-based framework. With regard to nuclear reactors, the Office of Nuclear Reactor Regulation (NRR) took steps to improve coordination of office risk-informed initiatives by identifying a specific NRR branch as the central focal point for coordinating risk-informed activities within NRR and creating a new management group to oversee risk-informed initiatives. Another multidisciplinary group assigned to help the transition independently monitored and evaluated the results of implementation of the agency's Reactor Oversight Program. Other ongoing reactor-related efforts include the (1) development of risk-based performance indicators to be considered for use in the plant assessment process and (2) conversion to new technical specifications developed to promote more consistent interpretation and application of technical specification requirements.

NRC is also using a task group to support its efforts to apply risk-informed techniques and approaches to the materials and waste arena regulatory framework. The Office of Nuclear Material Safety and Safeguards (NMSS) Risk Task Group (RTG) is using case studies and applying screening criteria to identify regulatory applications appropriate for risk-informing. The RTG has held public meetings about this methodology, trained NMSS staff in application of risk analysis tools and techniques, and used risk information to modify the inspection program.

These efforts to risk-inform oversight of reactors, waste, and materials indicate that NRC is attempting to take a coordinated approach to further the transition. However, as the Chairman noted in a recent speech at the Nuclear Safety Research Conference, this transition is proving to be a slow and challenging process.

CHALLENGE 3
Identification, acquisition, implementation, and protection of information resources.

Federal agencies' attention to and investment in 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. And, without proper protection, NRC's information resources could be compromised by a malicious cyber-attack.

NRC relies on a variety of information systems and networks to help carry out its responsibilities and support its business functions. The Agencywide Documents Access and Management System (ADAMS) — NRC's electronic information system for maintaining the agency's unclassified official program and administrative records in a centralized electronic document repository — is a system that continues to pose problems for NRC, both internally and externally. The agency is implementing an action plan to address these problems and received an assessment of ADAMS from an independent contractor. NRC also continues to work through issues with its Standard Financial and Integrated Resource Enterprise (STARFIRE) system — its proposed single, authoritative source of financial and resource information. STARFIRE was to consist of 10 modules and be operational by October 1999. However, that plan did not come to fruition, and the STARFIRE system implementation was downsized to include only those modules having the most immediate impact on the agency. As of November 4, 2001, the human resources, payroll, and time and labor modules were implemented as the agency's system of record. The agency's goal is to make the remaining modules the subject of a future project action.

NRC's information security program is composed of a comprehensive set of policies and procedures. However, the agency did not have a process to consistently implement its program and recently received a grade "F" in computer security from a congressional score card. Based on findings and recommendations from OIG's evaluation based on the Government Information Security Reform Act, NRC developed and issued a Corrective Action Plan to address these issues.

While the agency has made some strides in the information resources area, the need for close management attention, integrated decision-making processes, and more diligent planning still exists.

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 has taken steps to strengthen controls over financial management processes during the past year. Actions planned or taken include measures to improve control and accountability of

NRC property, clarify agency procedures for awards made under General Services Administration Federal Supply Schedule contracts, and ensure consistency in the development and implementation of the annual license fee process. The agency also modified its primary information technology and related operations support vehicle, the Comprehensive Information Systems Support Consolidation (CISSCO) program. CISSCO II allows NRC more purchase options and is expected to facilitate tighter control over the billing process.

NRC is still working to implement a cost accounting process as required by Federal accounting standards. Full implementation is expected in 2002. During the first quarter of fiscal year (FY) 2002, NRC implemented STARFIRE's human resources, payroll, and time and labor modules. However, NRC has yet to achieve its vision for a fully integrated, agencywide financial management system. During FY 2001, NRC reduced the number of material weaknesses identified in the FY 1999 financial statement audit. During FY 2000[1], the agency also closed out four of nine reportable conditions and it expects to close out another reportable condition this year. Further, NRC received an unqualified opinion on its financial statements for the seventh consecutive year during FY 2000. While progress has been made to tighten controls over financial management processes, further improvements are needed.

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, 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 is implementing initiatives to improve the quality, clarity, and credibility of its communications with all stakeholders. The agency's initiatives include the development of (1) communication plans to involve stakeholders early in regulatory activities, (2) a redesigned website to provide a richer variety of information, and (3) formal training courses to provide NRC staff with the necessary skills.

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 (which focus on subjects most likely to have a direct impact on the public) invite the public to observe the business portion of the meeting. After that is concluded, NRC staff members are available to answer the public's questions. Category 2 and category 3 meetings allow for a higher level of public participation.

[1]Results of OIG's FY 2001 financial statement audit were not available at the time this statement was prepared. Therefore, we are providing information primarily from the FY 1999 and FY 2000 audits.

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 an 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.

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 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 various actions to improve its internal communication over the past year and included plans for addressing this challenge in its performance plan for FY 2002. Actions taken or initiated over the past year include the (1) realignment of the Chief Information Officer to report to the EDO; (2) use of the electronic "EDO Updates," a new type of communication between the Executive Director for Operations (EDO) and the entire staff; and (3) updating of various management directives and production of other guidance to provide clearer direction to NRC staff. In May, the Senior Executive Service Candidate Development Program (SES CDP) class of 2001 produced a plan to improve internal communication, and in August the EDO sent a memo to office directors and regional administrators referencing the SES CDP report and establishing his expectations for making internal communication a priority. These efforts represent steps in a positive direction, and we will watch with interest the effect that these measures have on NRC's internal communication.

CHALLENGE 7
Integration of regulatory processes in a changing external environment.

NRC continues to be in a period of transition in several dimensions. As recently as a few years ago, the agency expected that a number of nuclear power plants would enter into early decommissioning. That has now changed and NRC expects most plants to apply for 20-year renewals to their operating licenses. The agency also continues to face deregulation of the electric power industry and is dealing with a significant consolidation of nuclear plant owners/operators.

The response to changes in the nuclear industry can have a significant impact on the safety of a plant and present challenges to the regulator. NRC is also dealing with the evolution of its nuclear material program.

NRC's external environment continues to evolve. For example, in a speech, the Chairman stated that the agency's license renewal program is proceeding aggressively, with three applications granted, seven plants under active review, and almost half the plants in the U.S. having indicated that they intend to pursue renewal. NRC is also proceeding with "pre-application" reviews of new reactor designs in anticipation of formal applications. To further prepare for new reactors and emerging issues, the agency established several multi-disciplinary groups to coordinate NRC activities. The Office of Nuclear Regulatory Research is also coordinating, with other program offices, to develop a research plan that identifies major areas for research and development to support advanced reactor licensing efforts.

While NRC has the authority to regulate the use of certain nuclear material, States are allowed to regulate the use of such radioactive material by entering into an agreement with the agency. The States that enter into this agreement with NRC are known as Agreement States. As the number of Agreement States continues to rise, NRC is now directly regulating a decreasing number of licensed users. As a result, these remaining NRC material licensees are bearing the burden of increasing fees to support agency efforts. In an effort to examine the impact, the agency formed a working group that developed and evaluated a range of possible options for a national program to better define State and Federal roles.

To meet the intent of the Government Performance and Results Act, NRC put in place a planning, budgeting, and performance management (PBPM) process. PBPM is the agency's disciplined, integrated planning framework. Currently, NRC's major program offices are using the process and the agency is making improvements for the use of PBPM in its service-oriented offices. An agency goal is to ensure that employees understand their roles and responsibilities under the PBPM process. Also, NRC's plan is to update and review its listing of external factors influencing agency activities.

As the agency continues to face a changing external environment, it must ensure that NRC's processes are well planned, budgeted, and integrated throughout the agency. Furthermore, agency managers need to be kept fully aware of what each organizational component is doing in an effort to reduce regulatory burden without compromising the public's health and safety.

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. Although the agency's expertise appears sufficient today, factors such as the aging workforce and a shortfall in nuclear engineering graduates suggest that NRC's future expertise and technical capability will likely decline without appropriate attention and action. 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. NRC needs to integrate its approach to human capital management into budgetary and strategic planning processes to ensure the agency's ability to function over the long run.

NRC has made a concerted effort to respond to this challenge over the past year. In response to the Chairman's request for a plan to assess and maintain the agency's scientific, engineering, and technical core competencies, staff developed and are working through an action plan for maintaining core competence by comparing the skills it has against the skills it will need and developing strategies to address those gaps. The agency has strengthened its recruitment program, offered its second recent SES CDP, developed and submitted an agencywide budget request for human capital initiatives, expanded the student intern program, and received permission from the Office of Personnel Management to waive the dual compensation reduction to hire Federal retirees in certain situations.

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 of attention they have received over the past year.

CONCLUSION

While I identified eight distinctive management challenges, the challenges are also interdependent. NRC can align itself to enhance its efforts to meet its public health and safety mission by continuing the important activities it has underway to address these most serious management challenges.

cc: Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield