STATEMENT SUBMITTED

BY THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEE ON CLEAN AIR, CLIMATE CHANGE,

AND NUCLEAR SAFETY

UNITED STATES SENATE

CONCERNING

NRC OVERSIGHT

PRESENTED BY

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CHAIRMAN

SUBMITTED: MARCH 9, 2006

Introduction

Mr. Chairman and members of the Subcommittee, it is a pleasure to appear before you today with my fellow Commissioners to discuss the Nuclear Regulatory Commission's (NRC's) programs. The Commission appreciates the support of the Subcommittee and the Committee as a whole, and we look forward to working with you in the future. We would also like to take this opportunity to thank Congress for the additional budgetary support that was provided last year.

I would like to highlight our key ongoing oversight and licensing activities, including activities to implement the provisions of the Energy Policy Act of 2005 (the Act), initiatives to meet the new challenges posed by the dynamic nature of today's nuclear arena, and in particular current and anticipated new reactor licensing activities and human capital initiatives.

Energy Policy Act of 2005

The Commission is pleased that key legislative provisions to augment the oversight of nuclear facilities and materials were enacted in the Energy Policy Act of 2005. The NRC has begun rulemaking activities to implement the authorization of the possession and use of certain firearms by security personnel, expanded fingerprinting and criminal history checks, Federal criminal sanctions for the unauthorized introduction of dangerous weapons at nuclear facilities, and Federal criminal sanctions for the sabotage of additional classes of nuclear facilities or designated materials.

The Commission has initiated and in some cases completed work to implement the other provisions in the Act. These activities include the following:

- The NRC is currently preparing a rulemaking to include within the definition of byproduct material under our regulatory authority accelerator-produced material, discrete sources of radium-226, and certain discrete sources of naturally-occurring radioactive material (NORM), other than source material, if these materials are produced, extracted or converted for use in commercial, medical, or research activities. In accordance with the statutory schedule, the NRC plans to issue a final rule by February 2007. However, the need for substantial stakeholder involvement is a challenge to meeting the deadline. As authorized by the Act, the NRC issued a waiver of the requirements to allow States to continue to regulate this material under their existing programs until the Commission adopts regulations and implements a plan for the orderly transition of the jurisdiction of the material to NRC regulatory oversight.

- The NRC has been taking action to implement key provisions of the Act that enhance our capabilities by authorizing the NRC to recover its costs from other government agencies through user fees, permanently extending the NRC's authority to collect 90 percent of its budget authority through fees, eliminating NRC's antitrust reviews for new utilization or production facility applications, and clarifying that the existence of an organizational conflict of interest does not bar the NRC from entering into a contract with a DOE laboratory under certain circumstances.

- The NRC is taking action to implement all of the human capital initiatives in the Act, such as the pension offset provision, to enhance the NRC's ability to maintain and improve its regulatory expertise.

- On January 31, 2006, the NRC issued a Confirmatory Order to the licensee for the Indian Point Nuclear Power Plant to implement the provision concerning backup power for certain emergency notification systems.

- The NRC issued a grant to the National Academy of Sciences (NAS) in January 2006, to assess whether there are other processes which either can replace radiation sources with economically and technically appropriate alternatives or can use radiation sources that pose a lower risk to the public. As provided by the Act, the NRC plans to submit the results of this study to Congress in August 2007.

- The NRC continues to exercise strong oversight of security at nuclear power plants, which includes force-on-force exercises for reactor licensees at least once every three years as required by the Act, and will provide its first annual report to Congress on the security evaluations before the end of FY 2006.

- On November 7, 2005, the NRC issued for public comment a proposed rule addressing the Design Basis Threat. Congress directed the NRC to consider 12 factors in developing the DBT rule, and the Commission has requested comments on those factors. A final rule is expected by February 2007.

- In July 2005, the Commission published proposed regulations that would establish a nationwide mandatory tracking system (National Source Tracking System, or NSTS) for Category 1 and 2 radioactive sources. The final rule is expected to be issued in August 2006.

Several provisions of the Act relate to the export or import of Atomic Energy Act material and equipment. Some of these provisions were satisfied by a final rule that was issued on July 1, 2005, which provided additional controls on the import and export of radioactive sources. The NRC anticipates issuing in Spring 2006 a final rule to, among other things, revise the regulations regarding the export of HEU for medical isotope production. Additionally, the NRC expects to publish in Spring 2006 a proposed rule addressing those classes of individuals subject to background check requirements for import or export shipments.

The new Task Force on Radiation Source Protection and Security convened in the fall of 2005 and included two additional entities whose participation was not mandated in the Act - - the Department of Health and Human Services and the White House Office of Science and Technology Policy. On January 11, 2006, the NRC published a Federal Register notice requesting public comment on major issues before the Task Force. A Task Force report will be delivered to Congress and the President in August 2006.

Those I mentioned are just a few of the activities we have undertaken since the passage of the Energy Policy Act. Let me say a few words about ongoing activities in the areas of new reactor licensing, human capital, and other core agency activities.

New Reactor Licensing

The Commission's Strategic Plan includes the agency objective to:

> Enable the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes in a manner that protects public health and safety and the environment, promotes the security of our nation, and

> provides for regulatory actions that are open, effective, efficient, realistic, and timely.

Consistent with this objective and its statutory responsibility, the NRC has been conducting reviews of new plant licensing related applications, including early site permit and design certification applications. Also consistent with this objective, the NRC is preparing for the significant workload to review combined license (COL) and other new plant licensing related applications that are currently being projected by the nuclear industry.

To date, the NRC has received three early site permit applications for sites in Virginia, Illinois, and Mississippi that currently have operating reactors. The NRC staff has issued three safety evaluation reports and three draft environmental impact statements for public comment, although additional work is being performed in connection with one application that has recently been significantly revised by the applicant. The adjudicatory proceedings associated with the early site permit applications are currently ongoing. These ESP reviews are first-of-a-kind and have identified numerous lessons learned for both the NRC and industry, which will be used to improve new reactor licensing processes in the future. The NRC is expecting an additional ESP application to be submitted during the summer of 2006. The NRC is also currently reviewing the General Electric Economic Simplified Boiling Water Reactor design certification application, is conducting pre-application activities for Areva's U.S. Evolutionary Power Reactor design, and is also conducting some activities for three additional reactor designs.

The NRC is preparing for the increasing number of projected new plant licensing applications. Last year at this time, the NRC had been notified of three potential COL applications in the next few years. Today, the number of expected COL applications is 11, and

continues to increase. Some of these applications are expected to reference designs already certified, while others are expected to reference designs that are still under NRC review for certifications. We continue to assess our resource needs in light of the very substantial increase in the number of anticipated COL applications and related work.

In order to allow for the review of multiple COL applications in parallel, the staff is considering a number of steps and planning to implement a design-centered approach. Using this approach, the NRC staff would use a single technical evaluation to support multiple combined license applications for the same technical area of review, as long as the applications standardize the licensing basis to a level that would make this approach viable. Standardization is key to success of this approach.

In addition, the Commission recently approved a proposal to revise 10 CFR Part 52, which contains the requirements for Early Site Permits, Standard Design Certifications, and Combined Licenses for nuclear power plants, to clarify it and enhance its usability. The proposed rule incorporates the lessons learned from previous regulatory reviews to enhance regulatory predictability at the COL stage. Furthermore, in the Part 52 rulemaking, the Commission is soliciting comments on an approach that would facilitate amendments to design certification rules after the initial certification. With such a provision, a detailed standard certified design would be able to incorporate additional features that are generic to the design and thereby encourage further standardization. Also, changes to the limited work authorization process will be considered. The NRC staff is working to provide a final rule in October 2006 for Commission consideration.

The Commission and the NRC staff continue to prepare the agency for the significant workload in the area of new reactor licensing. The NRC understands and accepts its share of this responsibility; however, a successful outcome depends on many factors, including the quality of the applications submitted. With the support of Congress, we will be ready to carry out our responsibilities and meet the challenges we will face.

Human Capital and Space Planning

As you know, the NRC's ability to accomplish its mission depends on the availability of a highly skilled and experienced work force. In a recent ranking of the Top 10 Federal Work Places, by the Partnership for Public Service and American University's Institute for the Study of Public Policy Implementation, the NRC was designated the third best place to work in the Federal government. In addition, the NRC was ranked first among those surveyed who are under 40 years of age. Nonetheless, the NRC continues to be challenged by the substantial growth in new work at a time when experienced staff are increasingly eligible to retire. To address these challenges, the agency has human capital strategies to find, attract, and retain critical-skill staff, and a space acquisition plan to accommodate these additional employees.

The NRC is aggressively recruiting a mixture of recent college graduates and experienced professionals to meet the agency's hiring challenges. The current projection is that over 400 additional FTEs will be devoted to new work by FY 2008. The Commission is striving to hire approximately 350 new employees in FY 2006 to cover the loss of personnel and to support growth in new work. The agency expects to have a critical hiring need for the next five years.

The NRC closely monitors its voluntary attrition rate including retirements, which has historically been below six percent, and will continue to do so as the attrition rate could potentially increase as industry competition for skilled individuals increases and as older staff retire. The agency uses a variety of recruitment and retention incentives to remain competitive with the private sector. We continue to experience success utilizing the provisions of the Federal Workforce Flexibility Act of 2004 and the Energy Policy Act of 2005. The NRC has budgeted for continued and increasing use of these recruitment and retention tools in the coming years.

Our steady growth and accelerated hiring program has exhausted available space at our Headquarters buildings. We have developed strategies to obtain adequate space to accommodate our new hires. We are creating additional workstations within our Headquarters buildings, including temporarily building workstations in conference rooms, and we are moving our Professional Development Center off-site to use the space it currently occupies for new hires. We are also seeking additional office space to support the expected growth of the agency.

The NRC will be continually challenged to maintain adequate infrastructure and the personnel needed. However, the Commission believes the agency is poised to meet these challenges successfully through the ongoing human capital planning, implementation, and assessment process, the space planning program, and the various tools provided by the Energy Policy Act of 2005.

- **NRC Safety Culture and Climate Surveys**

An agency's organizational culture is a key to the accomplishment of its mission. In 2005, the Inspector General conducted a survey of NRC employees to assess the current safety culture and climate of the agency's workforce. Approximately 70 percent of the NRC staff participated in the survey. The NRC improved its scores in virtually every category from the results of a similar survey conducted in 2002. These significant accomplishments included the areas of Communication and NRC Mission and Strategic Plan. Recruiting, Development & Retention and Management Leadership also showed significant improvement since 2002. In addition, the survey results revealed areas for continuing improvement, including workload and stress, knowledge transfer, and the use of the Differing Professional Opinion program.

Reactor Safety Programs

The agency's overall reactor safety functions are executed in a variety of ways, including licensing, inspection and oversight, rulemaking, enforcement, and investigations. Reactor safety programs ensure that safety of operating nuclear power plants is maintained, and the NRC is continually evaluating and improving these programs. NRC safety programs include evaluating past events, identifying lessons learned from those events, and partnering with stakeholders to increase their participation in the regulatory process.

- **Reactor Oversight Process**

The Commission believes that the revised Reactor Oversight Process (ROP), which was implemented in April 2000, has brought a more disciplined and objective approach to oversight

of nuclear power plants. Plants continue to receive a level of oversight commensurate with their performance. The results of NRC oversight activities, including performance indicators, inspection findings, and the current assessment of overall performance for each reactor are publicly available on the NRC's web site. The NRC staff continues to enhance the process through stakeholder participation and as a result of internal reviews, feedback, and lessons learned. For example, the NRC has begun conducting revised engineering inspections and continues to focus on improving the timeliness of the significance determination of inspection findings. In addition, the NRC is assessing the use of the ROP for new reactor designs.

- **Safety Culture**

Last year, I discussed an initiative to address the management of safety and safety culture issues by licensees and to develop better methods, tools, and training for the NRC's inspection staff. I would like to update you on this initiative and on the NRC's recent accomplishments.

The NRC issued generic guidance for establishing and maintaining a safety conscious work environment, including guidance on effective processes to encourage and address concerns and tools to assess the work environment. This guidance reiterates the NRC's expectation that senior licensee management will be involved in detecting and preventing retaliation.

The NRC staff is also enhancing the ROP to address safety culture more fully. The NRC staff continues to work with external stakeholders and has developed an approach to enhance inspection and assessment programs to better align the ROP with those aspects of

plant performance that are important to safety culture. The approach provides a means for the NRC to evaluate licensee actions to address identified performance issues which may be indicative of safety culture weaknesses to use a graded approach for having a licensee perform an evaluation or obtain an independent assessment of safety culture at the plant if needed, and to follow up with an independent NRC evaluation of safety culture for plants that have experienced a significant deterioration in performance. The NRC staff plans to complete revisions to the inspection and assessment programs in May 2006 and will be conducting training over the next few months for NRC inspectors and managers in order to support implementation of the safety culture-related enhancements on July 1, 2006.

- **Radiological Protection**

As part of NRC's requirements for operating a nuclear power plant, licensees must keep releases of radioactive material to unrestricted areas during normal operation as low as reasonably achievable and comply with radiation dose limits for the public. In addition, NRC regulations require licensees to have various effluent and environmental monitoring programs to ensure that the impacts from plant operations are minimized. The permitted effluent releases result in very small doses to members of the public living around nuclear power plants. The NRC oversees these licensee programs to ensure adequate protection of public health and safety and the environment. Recently, the NRC staff has been monitoring instances of, and licensee actions to address, groundwater contamination involving tritium at operating and shutdown power reactors undergoing decommissioning. In addition, the NRC is in the process of establishing a tritium lessons learned task force to review these incidents and identify lessons learned from them to determine what, if any, changes are needed.

- **Operating Reactor Licensing Programs**

The reactor licensing program, coupled with a strong oversight program, ensures that operating nuclear power plants maintain adequate protection of public health and safety. NRC licensing activities include using state-of-the-art science, engineering, and risk assessment methods and information from operating experience to establish and refine reactor safety standards, to promulgate the related rules, issue orders and generic communications as appropriate, and to review applications consistent with these requirements. In FY 2005, NRC staff completed 1,609 licensing actions associated with the 104 licensed reactors.

In 2005, the NRC reviewed and approved license renewal applications for nine reactors, bringing the total number of renewed reactor licenses to thirty-nine since 2000. Twelve additional license renewal applications are currently under review, five of which are on schedule to be completed in this fiscal year. Approximately one-half of the reactors in the United States have either received or are currently under review for a reactor license renewal. The NRC anticipates that the remaining reactors currently licensed to operate will apply for renewal of their licenses and the NRC staff will continue to face a significant workload in this area for the next several years.

To date, the NRC has completed reviews of and approved 108 power uprate applications, which have safely added capacity equivalent to more than four large nuclear power plants. Currently, the NRC staff is reviewing 10 power uprate applications and expects to receive approximately 7 additional applications through fiscal year 2007.

An extended power uprate increases the reactor's power by up to 20%. In some Boiling Water Reactors that have been implemented extended power uprates, the NRC has observed steam dryer cracking and flow-induced vibration damage in the steam and feedwater systems. The NRC staff has conducted extensive inspections at the affected plants and has held technical meetings with the affected licensees to discuss the causes of the adverse flow effects and to evaluate the corrective actions. The NRC will continue to monitor plant-specific and industry actions to resolve these issues and has factored this experience into reviews of pending power uprate applications.

Security

The NRC continues to evaluate and inspect security plans, procedures, and systems to ensure that acceptable security measures remain in place to protect the health and safety of the public. The NRC also continues to conduct the force-on-force exercise inspection program to evaluate licensee's defensive capabilities and identify areas for improvement. In the materials arena, the NRC continues to devote considerable effort to determine what additional actions should be used to enhance the security of radioactive material of greatest concern. In addition, the NRC maintains close communication and coordination with the Department of Homeland Security and other agencies in the intelligence and law enforcement communities. As requested in your letter of January 10, 2006, attached as an addendum, is NRC's report on research and test reactors.

The NRC has three important security rulemakings planned or under way to codify security requirements for power reactors. The first is the rulemaking on the design basis threat

for radiological sabotage. The comment period for the proposed rule ended recently and a final rule will be issued later this year. The second rulemaking will amend the power reactor security regulations to align them with the series of orders the Commission issued following September 11, 2001, and to ensure that safety-security interface issues are properly considered in plant operations. The Commission intends to issue a final rule as early in calendar year 2007 as possible. Finally, the Commission's expectations on security design for new reactor licensing activities are scheduled to be codified in a third rulemaking by September 2007. The expectation of the Commission is that the lessons learned by the agency and reactor licensees pre- and post-9/11 should be considered by the vendors at the design stage. We have learned much and I believe improvements can be realized without major design or construction modifications.

- **Reactor Security Assessments**

As Congress is aware, shortly after the September 11 attacks, the NRC required nuclear power plant licensees to implement mitigative strategies using existing or readily available resources to address the loss of large areas of any plants due to explosion or fire. At about the same time, the NRC initiated the performance of detailed engineering studies of representative nuclear power plants that assessed the damage that could be caused to the plants if large commercial aircraft were employed as weapons. Based on the differences in plant designs and capabilities found by these studies, the NRC is conducting evaluations at each U.S. nuclear power plant individually to identify specific methods that could be used to prevent or delay fuel damage, prevent or delay containment failure, or reduce or prevent releases of fission products. To expedite the studies, the NRC performed the spent fuel pool assessments completely independent of the reactor core and containment assessments.

The NRC has completed site-specific spent fuel pool assessments that addressed the recommendations of the National Academy of Sciences' study on spent fuel pools. Plant-specific reports were issued in December 2005 to all licensees, listing mitigation strategies identified during the assessments. As a result of these assessments, the industry proposed steps to ensure that plants have specific independent capabilities to mitigate spent fuel pool events. The NRC staff is evaluating the industry proposal. The NRC will determine if further actions are necessary after evaluating plant-specific details concerning licensees' implementation of the proposal.

In addition, we continue to enhance mitigation strategy capabilities by conducting plant-specific assessments of strategies for core and containment events. The NRC's assessments include an audit of each licensee's effort to identify mitigation strategies as well as an independent evaluation performed by NRC staff and contractors. These assessments began in September 2005, and will be completed in the spring of 2006. To date, the results of these assessments have validated the actions the NRC has taken to enhance the security and safety of the plants and have confirmed the robustness of these facilities. After all the assessments are completed and all strategies have been identified, the Commission will consider lessons learned across the nation and determine if additional actions are warranted.

- **Materials Security**

NRC continues to work with the DOE, DHS, Department of Transportation, Department of State, and the IAEA to prevent the malevolent use of radioactive materials. Actions the Commission has taken in 2005 include the following: 1) issuance of additional security measures for shipments of radioactive materials in quantities of concern from power reactors,

research and test reactors, and materials licensees; 2) issuance, along with the Agreement States, of additional security and material control enhancements for other industrial, medical and research licensees; 3) publishing a proposed rule to amend NRC's regulations to implement a National Source Tracking System, to replace the interim database; and 4) revision of regulations regarding the import and export of radioactive materials to be consistent with the IAEA's Code of Conduct.

Materials Program

The agency's overall materials safety functions are executed in a variety of ways, including licensing, inspection and oversight, rulemaking, enforcement, and investigations. The NRC, in partnership with the 34 Agreement States, conducts comprehensive programs to ensure the safe use of radiological materials in a variety of medical, industrial, and research settings. In 2005, the NRC had a number of significant accomplishments.

On June 15, 2005, the NRC staff issued the safety evaluation report and final environmental impact statement on the Louisiana Energy Services license application for the National Enrichment Facility, a gas centrifuge uranium enrichment facility, proposed to be located in Eunice, New Mexico.

In September 2005, the NRC published a proposed rule to amend its Yucca Mountain regulations to reflect the new proposed Environmental Protection Agency (EPA) standards. The NRC staff has continued its interactions with DOE on a variety of technical issues related to recently announced design changes and quality assurance program issues.

During FY 2005, the NRC oversaw decommissioning activities at numerous complex sites and power reactor sites. The NRC terminated six complex materials licenses, two uranium mill licenses, and two operating reactor licenses. In addition, the NRC approved the license termination plans for the Big Rock Point and Yankee Rowe power reactor sites. The NRC's review of the license termination plans ensures that the procedures and practices proposed by the site operators will protect the public health and safety and that the proposed decommissioning activities will make the sites suitable for release and license termination.

On September 9, 2005, the Commission concluded the agency's adjudication over the Private Fuel Storage LLC (PFS) application to construct and operate an independent spent fuel storage installation and authorized the agency staff to issue a license upon resolution of any outstanding issues. One matter that remained to be resolved was completion of consultations with other Federal and state agencies concerning the identification and protection of historic sites. After coordinating with the Advisory Council on Historic Preservation (ACHP), the NRC issued a license to PFS on February 21, 2006. The license contains a condition requiring PFS to first arrange adequate funding for the project. Additionally, PFS must obtain the requisite approvals from other agencies.

International Program

The NRC also carries out an active international program of cooperation and assistance involving thirty-eight countries with which it exchanges civilian nuclear safety information. This program provides public and occupational health and safety information and assistance to other countries to develop and improve regulatory organizations and overall nuclear safety and

security worldwide. The NRC continues to strongly support multinational programs for enhancing the level of nuclear safety worldwide and serves in leadership roles on technical committees that develop and monitor best practices. In addition, the NRC supports implementation of certain treaties and conventions that encourage the wider adoption of safety standards and practices. It is worth noting that the NRC proposed an initiative, the multinational design approval program, that will allow several regulatory authorities to work together in reviewing new reactor designs. In addition, the NRC amended its regulations in 10 CFR Part 110 concerning the export and import of radioactive materials to require certain licensees previously operating under general licenses to file for specific export and import licenses. In accordance with the revised regulations, licensees will also have to provide advance notification to the NRC before shipment and will need to verify the recipient facility's licensing status.

Agencywide Lessons Learned Program

As previously reported, we have undertaken a critical review of our programmatic and oversight activities to evaluate our own actions associated with the reactor vessel head degradation at Davis-Besse. A significant finding in the NRC Davis-Besse Lessons Learned Task Force Report was that some of the issues identified were similar to problems previously identified. The report recommended that the staff conduct an effectiveness review of actions taken in response to past lessons learned. NRC established an Effectiveness Review Lessons Learned Task Force (ERLLTF) and the task force issued its report on August 2, 2004. The ERLLTF found that some corrective actions from previous lessons learned had not been effective and that the root causes of the ineffective corrective actions were the lack of a lessons learned program, the lack of effectiveness reviews, the lack of a centralized tracking system, and weaknesses in closeout practices.

In response to the ERLLTF report, the Executive Director for Operations chartered a team on January 24, 2005 to develop an agencywide lessons learned program that would capture and address significant agency lessons learned reports and provide reasonable assurance that the problems identified will not recur. The team has completed development of a preliminary program and will be piloting the program this spring.

Budget

In order to meet new challenges while at the same time continuing to discharge our statutory responsibilities, the Agency's financial needs have increased to meet the expanded workload for FY 2007. Again we appreciate your support for the additional funding for FY 2006. The FY 2006 appropriation provided $41 million in funds above the President's budget request. Of this amount, $20 million will be used in support of new reactor licensing and $21 million will be used principally in support of nuclear security initiatives. Additional funds have been allocated to the ongoing nuclear power plant security assessments and other near term security-related activities. Funding is being used for security initiatives such as site specific assessments of spent fuel pools and core and containment analysis. Funds also support the development of security rulemakings, regulatory guidance for new reactor security licensing, workshops and policy position documents to improve transportation regulations and support to the Department of Homeland Security's Comprehensive Reviews.

The President's FY 2007 budget provides $777 million for the NRC, which is an increase of $35 million (approximately 5 percent) above FY 2006. The budget request includes an increase of approximately $22 million for the Nuclear Reactor Safety program, which includes

the new reactor licensing work, $21 million for the agency's infrastructure and support activities, and $10 million to fund Federal pay raises and other non-discretionary compensation and benefit increases. These increases are offset by a decrease of approximately $18 million for the Nuclear Materials and Waste Safety program due to the delay in the Department of Energy's application for the high-level waste repository at Yucca Mountain, and other program changes.

Conclusion

The Commission continues to be committed to ensuring adequate protection of public health and safety, promoting the common defense and security, and protecting the environment in the application of nuclear technology for civilian use. We understand the challenges we face in the new reactor licensing and human capital areas and will continue to work with the Committee as we move forward. We continue to build on our work in the area of security to enhance the safety and security of the American public. The Commission will ensure that the agency is discharging its responsibilities as mandated by Congress in an effective, efficient, and timely manner.

Addendum to NRC's Testimony for March 9, 2006 Oversight Hearing

Research and Test Reactors

The NRC has licensed 49 research and test reactors (RTRs), of which 33 are operating. These 33 RTRs are used to train the next generation of nuclear professionals, and to perform research and development activities in many fields of science. The NRC licenses RTRs under the provisions of the Atomic Energy Act of 1954, which directs the Commission to impose only the minimum amount of regulation as the Commission finds will permit the Commission to fulfill its obligations under this Act to promote the common defense and security and to protect the public health and safety and will permit the conduct of widespread and diverse research and development.

The NRC has always required RTRs to have security plans or procedures in place to detect, deter, assess, and respond to unauthorized activities. These plans use a defense in-depth philosophy, and reflect a graded approach that considers the attractiveness of the reactor fuel as a target, and the risk of radiological release. The NRC reviews and approves these plans.

Between 2002-2004, NRC issued Confirmatory Action letters (CALs) to all but 7 RTRs to formalize the commitments made to implement previous compensatory measures. Seven RTRs did not receive CALs because of the very low radiological risk associated with these facilities. The compensatory measures taken by the RTRs addressed vehicle threats, insider threats, and external land-based threats. The NRC has verified the implementation of these measures through on-site inspections and evaluations.

The NRC conducted security assessments of most RTRs to evaluate the facilities for theft or diversion of special nuclear material and radiological sabotage. These assessments

used a three-phase approach which included screening of the threat scenarios, assessments of RTR security measures and detailed consequence assessments. The results of these security assessments indicate that no credible reactor sabotage would result in a prompt fatality to a member of the public and that it is highly unlikely that a formula quantity of highly enriched uranium can be stolen or diverted for malevolent purposes. These security assessments also found that theft of irradiated fuel for use as a radiological dispersal device or as a radiological exposure device is unlikely to result in prompt fatalities to members of the public. The security assessments for RTRs concluded that no additional security requirements are currently needed. From these security assessments, the NRC identified generic best practices which were shared with all RTR licensees and many of the licensees voluntarily incorporated some of these best practices at their facilities. On October 7, 2005, the NRC issued requests for additional information (RAIs) for licensees to reevaluate implementation of post 9/11 security measures. The NRC will continue to verify that security requirements and commitments continue to be implemented and to work with DHS, DOE, and the National Organization of Test, Research and Training Reactors (TRTR) in a Government Coordinating Council (GCC) sub-council on RTRs to assist RTRs with security.

The NRC assessed the potential security issues raised in the ABC “Prime Time” telecast on October 13, 2005. All but one of the issues raised by ABC were determined to be appropriately addressed by applicable site security plans, procedures, and post 9/11 compensatory measures. One violation of security requirements was identified and processed in accordance with the NRC’s Enforcement Policy and the Licensee has implemented appropriate corrective actions. The NRC determined that the conditions associated with the ABC identified issues were previously evaluated in the NRC’s review and approval of RTR site security plans, procedures, and/or post 9/11 compensatory measures.