STATEMENT SUBMITTED

BY THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

COMMITTEE ON ENERGY AND COMMERCE

UNITED STATES HOUSE OF REPRESENTATIVES

FOR THE HEARING ON

REDUCING THE THREAT OF NUCLEAR TERRORISM:

A REVIEW OF THE DEPARTMENT OF ENERGY'S

GLOBAL THREAT REDUCTION INITIATIVE

SUBMITTED BY

EDWARD MCGAFFIGAN, JR.

COMMISSIONER

SUBMITTED: MAY 24, 2005

Mr. Chairman and members of the Subcommittee, it is a pleasure to appear before you today on behalf of the Nuclear Regulatory Commission (NRC) to discuss our efforts to enhance the security of high-risk radioactive sources and research and test reactors. The NRC takes very seriously its responsibility to ensure the adequate protection of the public health and safety. Mr. Chairman, we believe that significant achievements have been made by our agency in the area of security. Let me enumerate a few of these achievements.

Since September 11, 2001, the NRC has thoroughly reevaluated its safeguards and security programs and, to date, has issued over 16 different categories of Orders and Confirmatory Action Letters covering hundreds of licensees and actions involving radioactive materials of greatest concern. The NRC continues to devote considerable effort to determining what additional actions could be used to enhance the security of these materials in use, in storage, or in transport. The emphasis of this effort is on preventing the use of radioactive materials that have the potential to pose a risk to public health and safety if used in a radiological dispersal device or a radiological exposure device (RDD/RED). The objective of NRC's programs to control these radioactive materials is to ensure the protection of the public and the environment and to promote the Nation's common defense and security. The overall approach is risk-informed and focuses on radioactive materials of greatest concern.

Measures Taken to Enhance Security of Sources

There are millions of radioactive sources in the United States and although these sources are in the possession of a large number of organizations, only a small fraction of those sources would present a credible terrorist target and are therefore considered radioactive materials of greatest concern. This is because most licensees use radioactive material that is in very small quantities; has a short half-life; is relatively inaccessible; is in a form which cannot be

readily dispersed; or has a combination of these attributes. We have applied a graded approach to security that is generally consistent with the potential radiation risk from these materials.

Mr. Chairman, the Commission in coordination with our Department of Energy colleagues, has taken the following actions to improve the security of high-risk sources:

NRC, in cooperation with the Agreement States, issued advisories to licensees to enhance security measures on March 17, 2003, consistent with the launch of Operation LIBERTY SHIELD.

NRC and DOE, in consultation with other Federal agencies, issued the DOE/NRC Interagency Working Group Report on RDD/REDs in May, 2003. This report defined threshold quantities for radioactive materials which are the highest risk and have a potential for malevolent use.

During 2002-2003, the NRC Commission worked with the Departments of Energy and State and the international community to reach agreement on which radioactive materials and sources are of the greatest concern. Those sources are set forth in the International Atomic Energy Agency (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources. The Code of Conduct was approved by Member States at the IAEA General Conference in September 2003. The U.S. Government committed to implement the Code of Conduct in late 2003, and it was then endorsed by the G-8 at the Sea Island summit in 2004. The threshold values in the Code of conduct are in substantial agreement with the values contained in the DOE-NRC RDD report.

The NRC, in coordination with the Departments of State, Energy, and Homeland Security, has approved a final rule amending its export and import regulations to impose more stringent controls over the Category I and Category II materials defined by the IAEA Code of Conduct with the exception of radium-226 (Ra-226), a naturally occurring radionuclide which the NRC does not currently have the authority to regulate under the Atomic Energy Act. This rulemaking implements a key element of the Code of Conduct and its guidance documents by increasing licensing requirements, as well as notice and consent requirements. The United States is the first country to implement the export-import provisions in the Code of Conduct guidance documents.

The NRC, in cooperation with DOE and other Federal agencies, is developing a National Source Tracking System to track radioactive materials of greatest concern specified in the IAEA Code of Conduct on a permanent basis. The NRC is working closely with the Department of Energy, the Agreement States, the Department of Homeland Security, the Environmental Protection Agency, the Department of Transportation, the Department of State, the Department of Commerce, the Department of Defense and the Federal Bureau of Investigation to ensure that the system addresses needed functions and minimizes unnecessary duplication. NRC will involve the public through our rulemaking process.

The NRC has developed and is maintaining an interim database of Category I and II radioactive sources for both NRC and Agreement State licensees. This database will be maintained until the National Source Tracking System is complete.

The NRC has required security enhancements for various classes of NRC and Agreement State materials licensees, including independent spent fuel storage installations, fuel cycle facilities, large irradiators, and manufacturers and distributors of radioactive material. Orders for NRC and Agreement State materials licensees in the medical academic and industrial fields (e.g., blood irradiators, gamma knives, radiographers, well loggers, etc.) are currently in final stages of development.

The NRC has issued security Orders governing the transportation of spent nuclear fuel, and Orders governing the transportation of other radioactive materials in quantities of concern are also currently in the final stages of development.

The NRC has implemented the Homeland Security Advisory System for NRC and Agreement State licensees.

NRC has assisted the DOE, where possible, to accelerate the collection of unwanted radioactive sources through the DOE's Offsite Source Recovery Program. Since its inception in 1997, the DOE program has recovered over 10,000 sources from approximately 400 locations in the United States and the DOE has consistently been very responsive to NRC requests for assistance.

Research and Test Reactors - Security/Conversions

The NRC has required security plans and procedures at research reactors since the late 1970s in accordance with our regulations. The security programs and systems are required to provide early detection, and assessment of and response to unauthorized access or activities.

These security programs also include control of access to facilities, emergency response personnel (e.g., University Police, Local Law Enforcement Agency, or contract security forces), alarms, other devices and procedures to detect unauthorized activities. Response forces are required to respond to all indications of unauthorized penetrations or activities.

Following September 11, 2001, the NRC promptly advised research and test reactor licensees to heighten and enhance security in accordance with preestablished notices to protect against radiological sabotage and theft of nuclear material. Subsequently, as it proceeded with its security review, NRC required research and test reactor licensees to take additional security measures. These additional security measures were focused on protecting against land-based assaults and insider attacks. More specifically, these additional security measures include, but are not limited to, enhancements to access authorization and controls, communication systems, and vehicle and package searches. The additional security measures also include heightened coordination with appropriate local, State, and federal resources.

The NRC has verified the implementation of these measures to protect research and test reactor facilities. Further, NRC maintains regular communications with other Federal agencies (including the Departments of Energy and Homeland Security, the Federal Bureau of Investigation, the Central Intelligence Agency and the National Counter-Terrorism Center) to continue assessing potential threats to all classes of licensees including research and test reactors. We have conducted consequence assessments of these reactors and have concluded that there is a low risk to public health and safety from potential threats.

The NRC has worked with DOE to convert research reactors to low enriched uranium fuel which is a less attractive target for terrorists. The Commission welcomes DOE's initiatives to

convert the University of Florida and Texas A&M reactors to low-enriched fuel, and its plans to convert other research reactors for which suitable low-enriched fuel has been developed. The NRC, DOE and research and test reactor licensees also have been cooperating on efforts to identify irradiated fuel which is no longer needed and ship it to a DOE facility. This cooperation is based on NRC and DOE initiatives recognizing that keeping unneeded fuel onsite is an unnecessary risk under the current threat environment. Considerable progress in this regard has been made. The Commission welcomes the additional $20 million the House Appropriations Committee approved for FY 2006 for the Reduced Enrichment for Research and Test Reactors (RERTR) program to accelerate the conversion of domestic research reactor fuel from highly enriched uranium to low enriched uranium.

The NRC has recently taken the initiative to identify various unwanted radioactive materials, such as fission chambers, fission foils, fission plates, and various government-owned materials at NRC licensed research reactors and has informally requested DOE to assist with their removal.

In summary, Mr. Chairman, I can assure you that the Commission is and will continue to be very active in ensuring the development and implementation of enhanced controls of radioactive sources that could be used in an RDD/RED. I also want to take this opportunity to thank the Committee for their support of Section 662 in the Energy Bill (H.R.6) which will allow us to require fingerprinting for employees at the facilities we have been discussing today. Again, I appreciate the opportunity to appear before you today on behalf of the Commission and stand ready to answer any questions you or the other members of the Subcommittee may pose.