WRITTEN STATEMENT
BY MARK A. SATORIUS, EXECUTIVE DIRECTOR FOR OPERATIONS
UNITED STATES NUCLEAR REGULATORY COMMISSION
TO THE
SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
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Good morning Chairman Carper, Ranking Member Coburn, and distinguished Members of the Committee. I appreciate the opportunity to appear before you today on behalf of the U.S. Nuclear Regulatory Commission (NRC). Today I'd like to address the NRC's activities to ensure the security of radioactive sources.

Radioactive source security has been, and continues to be, a top priority for the NRC. The NRC's efforts have been effective, keeping incidents involving radioactive sources to a minimum, and their potential consequences low. The NRC continues to work with the 37 Agreement States and domestic and international organizations on a variety of initiatives to make risk-significant radioactive sources even more secure and less vulnerable to malevolent use.

Brief History of Materials Security at NRC

The events of September 11, 2001, changed the threat environment and resulted in significant strengthening of the security of radioactive sources. While the NRC's fundamental goals to protect public health and safety, promote the common defense and security, and protect the environment, remained unchanged, the NRC recognized a need to increase its requirements for security of radioactive sources. Immediately following September 11, 2001, the NRC, working with other Federal and State agencies, prioritized actions to enhance the security of radioactive sources and facilities. These initial actions resulted in the NRC disseminating a number of security advisories to NRC and Agreement State licensees, recommending specific actions to enhance security, address potential threats, and communicate general threat information. Although these security advisories did not impose legally binding requirements, much of the regulated community understood the change in the threat environment and the need for increased security and implemented the recommended actions.

With voluntary security measures in place, the NRC proceeded with multiple activities in parallel. The NRC provided experts to serve on both national and international working groups to determine what radioactive sources needed enhanced security. The NRC staff also actively participated in studies, both domestic and international, to examine commonly used medical, academic, and industrial radioactive sources. These efforts eventually became the list of sources found in the International Atomic Energy Agency Code of Conduct on the Safety and Security of Radioactive Sources.

The NRC sought to move away from voluntary security enhancements and toward legally binding requirements subject to inspection and enforcement. As this transition occurred, the NRC recognized the need to carefully integrate this increased security with the existing regulatory structure for safety of radioactive and to ensure that security measures do not diminish safety. Together with the law enforcement and intelligence communities, the NRC staff conducted threat analyses to document the credible motivations, intentions, and capabilities of potential adversaries. The NRC also conducted facility security assessments to help inform the additional security and control measures needed to protect against the risk of malevolent use risk-significant radioactive sources. Once the NRC identified specific actions that licensees needed to take to enhance the security and control of risk-significant sources, the NRC incorporated all this information to develop requirements to improve the ability to detect, assess, and interrupt adversaries who attempt to steal, divert, or sabotage radioactive sources. These requirements included:

- Access controls, including fingerprinting and background checks for personnel with unescorted access to the sources
- Detection, assessment, and response capabilities
- Transportation controls
- Information protection

The NRC issued Orders that imposed legally binding requirements on individual licensees. The need for urgency revealed by threat assessments and facility security assessments made it essential for the NRC to act quickly to remove any security gaps by using orders, rather than the normal rulemaking process which takes longer.

In order to prioritize its work on risk significance, Orders for the most risk significant facilities, such as commercial nuclear power plants, were first issued in 2002. Orders were issued to large panoramic and underwater irradiators in June 2003, manufacturers and distributors of radioactive material in January 2004, and licensees transporting radioactive materials in July, 2005. Other risk-significant materials licensees received Orders in late 2005.

In 2005, the Energy Policy Act expanded the NRC's authority to ensure the security and control of additional risk-significant materials, and required fingerprinting and Federal Bureau of Investigation (FBI) criminal history records checks for individuals with unescorted access to risk-significant radioactive sources. This legislation also mandated the development of a national registry of radioactive sources. Accordingly, in 2007, the NRC and Agreement States issued additional security Orders to licensees requiring fingerprinting and an FBI criminal history background check on anyone with unescorted access to risk significant radioactive sources.

The Energy Policy Act of 2005 also established an interagency task force on radiation source protection and security under the lead of the NRC to evaluate and provide recommendations to the President and the Congress relating to the security of radiation sources in the U.S. from potential terrorist threats. This task force submitted its first report to the President and Congress in August 2006, concluding that there were no significant gaps in the area of radioactive source protections and security that were not already being addressed. The Task Force submitted its second report to the President and Congress in August 2010, providing an update on the progress made since the 2006 report and proposing new recommendations in an effort to continue to improve the security of radioactive sources. The Task Force will submit the third report in August, 2014.

National Materials Management Program

In late 2006 and early 2007, the U.S. Government Accountability Office (GAO) conducted a test on the NRC's controls governing the issuance of licenses for possessing certain types of radioactive sources, and for enforcing possession limits on the quantities of those materials. GAO reported that they were able to obtain radioactive sources licenses for two fictional companies, modify the licenses to raise the possession limits, and then use the augmented licenses to receive quotes for purchasing radioactive sources from legitimate licensees. GAO did not acquire the materials.

A hearing was held July 12, 2007, by the Permanent Subcommittee on Investigations of this Committee following issuance of GAO's report. At that hearing, a web-based licensing (verification) system was discussed which would allow suppliers to validate purchaser licenses, and the authorized quantity that a purchaser could obtain.

In an effort to better track transactions of radioactive sources nationally, the NRC developed a portfolio of automated tools to track credentials, inspections, devices and sources, and events, and verify licenses. This portfolio includes: the National Source Tracking System (NSTS), the Web Based Licensing (WBL) System and the License Verification System (LVS).

The NSTS allows the NRC to follow transactions of nationally-tracked, high-risk radioactive sources from origin, through transfer to another licensee, to final disposition. The WBL System assists in managing the NRC's licensing information regarding businesses that use radioactive sources. The LVS is a "national verification system" that accesses license information and ensures that only authorized licensees obtain radioactive sources in authorized amounts. These systems ensure that national radioactive source authorization, possession, and transaction information is available to all government agencies that protect the country from radiological threats; provide licensees with a secure automated means to verify license information and possession authorization prior to initiating radioactive source transfers; enable the NRC and the Agreement States to monitor the location, possession, transfer, and disposal of high-risk radioactive sources throughout the country; improve source accountability by licensees; and alert regulators to track discrepancies.

Improvements in Pre-licensing Activities

Another recommendation of the 2007 GAO report was for the NRC to improve its pre-licensing activities. As a result, the NRC ceased relying on the presumption that applicants for a license were acting in "good faith," and instead instituted a policy by which the NRC and the Agreement States would verify the legitimacy of applicants when first dealing with them. We also issued pre-licensing guidance that includes various applicant and licensee screening activities and site visits to ensure radioactive source will be used as intended.

Integrated Materials Performance Evaluation Program

In the area of materials security, the NRC and Agreement State regulatory agencies have worked together to create a strong and effective regulatory framework that provides an

appropriate level of security for risk-significant radioactive sources to ensure adequate protection of public health and safety, and provide for the common defense and security.

The Atomic Energy Act (AEA) gives the NRC preemptive authority over health and safety and common defense and security regulation of the possession and use of AEA materials. Subsequent amendments to the AEA added Section 274 of the Act which created the Agreement State program, under which the NRC may relinquish its health and safety authority of AEA material specified in formal agreements. When a State applies to become an Agreement State, the NRC reviews the State's regulatory program to ensure that the program is both adequate to protect public health and safety and compatible in all other respects with the NRC's own program. In addition, the AEA does not allow the NRC to relinquish the authority to protect the common defense and security to an Agreement State. Thus, the Commission retains the authority to impose security requirement on Agreement State licensees.

The AEA also requires the NRC to periodically review the 37 Agreement State programs. In 1997, the Commission fully implemented a process, the Integrated Materials Performance Evaluation Program (IMPEP), to assess its own regional materials programs as well as those of the Agreement States. The program uses a set of common performance indicators as a basis for an integrated assessment of a regional or Agreement State program. The IMPEP provides the NRC with a systematic, integrated, and reliable evaluation of the strengths and weaknesses of the respective programs. This in-depth process provides an indication of areas in which NRC and the Agreement States should dedicate more resources or management attention.

NRC Regulations (10 CFR Part 37)

Developing a radioactive source security rulemaking to replace the Orders and State requirements described above, and provide generally applicable requirements to a broad set of licensees required a significant collaborative effort between the NRC and the Agreement States. This rulemaking was informed by numerous insights regarding implementation of the Orders, as informed by inspections, self-assessments, and external audits. The challenge was to create a materials security rule that incorporated realistic approaches to enhancing security and that would interface and integrate well with the NRC's existing safety rules.

The resulting rule (10 CFR Part 37) is an optimized mix of performance-based and prescriptive requirements that provide the framework for a licensee to develop a security

program for risk significant materials with measures specifically tailored to their facilities. The rule became effective May 20, 2013; compliance was required for NRC licensees by March 19, 2014. Agreement State licensees must fulfill compatible requirements by March 2016. Key requirements include:

- Background checks, including fingerprinting, to help ensure that individuals with unescorted access to radioactive sources are trustworthy and reliable;
- Controlling personnel access to areas where risk-significant radioactive sources are stored and used;
- Documented security programs that are designed with defense in depth to detect, assess, and respond to actual or attempted unauthorized access events;
- Coordination and response planning between licensees and local law enforcement agencies for their jurisdiction;
- Coordination and tracking of radioactive source shipments; and
- Security barriers to discourage theft of portable devices that contain risk-significant radioactive sources.

Inspection and Enforcement

Trained NRC inspectors and investigators identify violations of security requirements through routine and special inspections. When violations of security requirements are identified, licensees are required to implement corrective actions before the inspector completes the inspection. NRC inspectors verify and evaluate these corrective actions during subsequent inspections. After a violation is identified, the NRC assesses the significance of a violation by considering the actual safety and/or security consequences, the potential consequences, and any willful aspects of the violation. Depending on the severity of the violation, the NRC may impose civil enforcement actions, and the licensee may also be subject to criminal prosecution.

The NRC has an extensive training program for personnel conducting security inspections. The NRC training program is available to Agreement States as well, and only qualified inspectors can conduct security inspections. Qualification requires a candidate both to complete training and to accompany qualified inspectors on inspections. In addition to providing training, the NRC also maintains a secure online information-sharing tool for NRC and Agreement State inspectors. This resource is available for inspectors seeking additional guidance to resolve questions related to security of risk-significant radioactive material.

GAO Audits

The NRC radioactive source security program has been the focus of two recent GAO audits. In the first audit, the GAO reviewed the NRC's security requirements for risk-significant radioactive sources possessed, and in use at U.S. medical facilities. However, because the 10 CFR Part 37 regulations were not in effect at the time of this most recent GAO audit, the GAO report focused on the NRC security requirements that were issued to licensees by Orders. As noted earlier, the Part 37 rule did not simply codify the security orders, but expanded upon the security requirements in those Orders. The 2012 GAO report concluded that the NRC security controls needed to be strengthened because they do not prescribe specific security measures (such as specific requirements on the use of cameras, alarms and other physical security measures) that the licensee should take to secure their radiation sources.

The NRC did not agree with this conclusion. The NRC believes prescriptive "one-size-fits-all" regulations may result in either excessive or non-conservative approaches to source security. The GAO based its conclusions on four examples identified during its field work to support their final report (out of 26 facilities GAO visited). The NRC and Agreement States conducted follow-up evaluations with three of the licensees GAO identified, and concluded that there was no violation of NRC security requirements. The NRC was unable to identify the fourth licensee to pursue further action. The NRC's and Agreement States' view is that such a failure to properly implement security controls would be a compliance issue to be addressed through inspection and enforcement. This example does not indicate that the performance based regulatory framework itself is inadequate.

While the NRC did not agree with the GAO recommendation for prescriptive-based regulation, the NRC did acknowledge the GAO concerns that some of the licensee personnel with security responsibility lack expertise in physical security, which may result in inconsistent application of security controls to their programs. In response to this recommendation, the NRC developed and provided additional written guidance to instruct licensees on best security practices. This best practices document is in addition to the implementation guidance document already developed to accompany the publication of 10 CFR Part 37.

The latest GAO audit reviewed the NRC program of security requirements for risk-significant radioactive sources used in industrial settings. In this audit, GAO raised concerns with how the NRC defines collocation of sources, the trustworthiness and reliability process (questioning whether it provides reasonable assurance against an insider threat), and the

development of the best security practices document (specifically that licensees were not directly involved in the development of this document).

Again, this GAO report focused on the NRC security requirements that were issued to licenses by Orders because the 10 CFR Part 37 regulations were not in effect at the time of the audit. The NRC acknowledges the concerns raised by the GAO in the most recent audit, and is committed to reviewing the effectiveness of the requirements to determine whether any additional security enhancements are necessary. If additional measures are needed, the Commission will consider appropriate security enhancements.

Federal Collaboration

Nuclear and radioactive materials are a critical and beneficial component of global medical, industrial, and academic efforts. Domestically, the NRC and the Department of Energy/National Nuclear Security Administration (NNSA) have worked together with a common goal of ensuring radioactive sources are not being used for malevolent purposes.

NNSA, through its Global Threat Reduction Initiative (GTRI), provides government-funded physical security enhancements to licensees on a voluntary basis. These voluntary enhancements are supplementary to, but do not replace, licensees' obligations to meet NRC and Agreement State regulatory requirements. The voluntary security enhancements go beyond the NRC's regulatory requirements. The NNSA program also provides other important and valuable benefits and enhancements, including removal of disused radioactive sources and specialized training for local law enforcement.

Looking Forward

Since September 11, 2001, the NRC and Agreement States have worked together to create a strong, effective regulatory framework that provides an appropriate level of security for risk-significant radioactive sources to ensure adequate protection of public health and safety, and the common defense and security. The NRC's efforts in radioactive source security have not ended with the publication and implementation of our 10 CFR Part 37 rule. The NRC will continue to assess its programs to ensure they promote the safe and secure use and management of radioactive sources.