

TESTIMONY OF RICHARD J. K. STRATFORD
DIRECTOR, OFFICE OF NUCLEAR ENERGY, SAFETY AND SECURITY
BUREAU OF INTERNATIONAL SECURITY AND NONPROLIFERATION
U.S. DEPARTMENT OF STATE

BEFORE THE
UNITED STATES SENATE HOMELAND SECURITY AND GOVERNMENT
AFFAIRS COMMITTEE

SUBCOMMITTEE ON OVERSIGHT OF GOVERNMENT MANAGEMENT, THE
FEDERAL WORKFORCE, AND THE DISTRICT OF COLUMBIA

13 MARCH 2007

INTRODUCTION

Mr. Chairman, Mr. Ranking Member, and members of the Committee, I want to thank you for the opportunity to speak to the topic of U.S. international efforts on radiological security and to explain the role of the Department of State in this important area. The Government Accountability Office is issuing a report reviewing the work of the Department of Energy and other agencies, including the Department of State, to enhance security of radioactive sources abroad. This is a challenging and important task. Radioactive sources are used throughout the world and across the public sector for numerous beneficial purposes, including cancer treatment, sterilization of medical equipment, food preservation, inspection of pipelines and other critical infrastructure, and oil exploration. Ensuring access to these valuable, often lifesaving, technologies while also ensuring the safe and secure management of radioactive sources requires a balanced, harmonized, and multilateral approach.

Following the events of September 11, 2001, governments and international organizations have taken steps to enhance security for radioactive sources, particularly those that could be used in a radiological dispersal device or "dirty bomb." The United States has led the world on radiological security through our proactive engagement on multilateral undertakings and the provision of bilateral assistance.

WHAT IS THE ROLE OF THE DEPARTMENT OF STATE?

The principal role of the Department of State in U.S. international efforts to secure radioactive material is the development and provision of U.S. international policy direction on source security and oversight of U.S. government activities abroad.

The Department of State has taken a leadership role in the international arena on strengthening existing and developing new international standards and instruments for the management of radioactive sources. The Department provides leadership in the development of unified U.S. government (USG) policy positions, in consultation with the Department of Energy (DOE), the Nuclear Regulatory Commission (NRC) and other technical agencies, related to radiological security. The Department of State also coordinates USG efforts abroad to ensure that these activities are consistent with overall U.S. foreign policy and do not negatively affect foreign relations. The State Department roles in international radiological security include:

- Leading U.S. efforts to promote radiological security agenda within international organizations and high-level political fora, including the International Atomic Energy Agency (IAEA), Group of Eight major industrialized nations (G-8), , Asia-Pacific Economic Cooperation (APEC), and Organization for Security Cooperation in Europe (OSCE)
- Coordinating U.S. activities related to radiological security under presidential-level initiatives, including the U.S.-Canada–Mexico trilateral Security and Prosperity Partnership of North America (SPP) and the G-8 Action Plan on the Security of Radioactive Sources;
- Establishing U.S. policy positions on international radiological security policies and activities, including co-chairing (with DOE) the interagency Subcommittee on Nuclear Security;
- Leading and coordinating U.S. participation at IAEA consultancies and technical meetings for the development and revision of key Agency guidance documents and multilateral frameworks pertaining to radiological security;
- Contributing to funding for and promoting IAEA programs and activities that enhance global radiological security;

Providing general oversight of U.S. international radiological security assistance to prevent overlap, optimize effectiveness, and ensure consistency with U.S. policy objectives.

- In conducting its work, the Department works closely with the technical agencies, including DOE and the NRC. As the missions and activities of DOE and NRC are complementary, both are essential for implementing U.S. policy and meeting U.S. radiological security objectives, and the Department relies heavily on the technical expertise of each.

WHAT HAS THE DEPARTMENT OF STATE DONE TO ENHANCE GLOBAL SECURITY OF RADIOACTIVE SOURCES?

The Department of State promotes the establishment and strengthening of lifecycle controls for radioactive sources.

To encourage and help countries enhance the safe and secure management of radioactive sources and materials throughout their entire lifecycle, the Department of State has pursued a strategy comprised of three important elements: the development and strengthening of international standards for ensuring the safe and secure management of radioactive sources; participating in revising and strengthening IAEA assistance programs to help countries implement these standards; and providing support for services to help countries evaluate their progress toward sustainable and effective management of radioactive sources.

Department of State led the U.S. delegations and coordinated interagency activities in efforts to gain broad international support at the highest levels for strengthening the control of radioactive sources throughout their entire lifecycle. This included in 2003 the successful revision of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources (Code of Conduct) to incorporate post-9/11 security concerns and in 2004 the development of the first international framework for the import and export of radioactive sources, now published as a supplement to the Code of Conduct as the IAEA Guidance on the Import and Export of Radioactive Sources (Guidance).

Through Department of State leadership, the United States also succeeded in gaining strong international endorsements for the Code of Conduct and Guidance at the IAEA Board of Governors and the General Conference and by leaders at G-8, U.S. - EU, APEC, and OSCE summits. As a result of this high-level support, the Code of Conduct and Guidance now represent the broadly accepted international guidance for effective national radiation protection infrastructures and international harmonization of import/export practices for radioactive sources. Furthermore, such international engagement has led to the establishment of a formalized review mechanism to begin in 2007 that includes regular international meetings to review progress achieved and challenges faced by implementing countries. To date, 88 countries have made a political commitment to the Code of Conduct, an action encouraged by Secretary Powell in a February 2004 letter sent to capitals worldwide, and 39 countries have made a similar commitment to the import/export Guidance. In spite of their non-binding status, IAEA legal experts have commented that such widely recognized guidance documents could prove more effective than a legally binding approach for the control of radioactive sources, which are in wide-use throughout the world in medical, industrial, commercial, and academic settings.

The success of the United States in these international endeavors would not have been possible without the technical and legal input of the NRC and DOE during the revision of the Code of Conduct and development of the import/export Guidance. Of equal significance has been the commitment of both agencies to implement the guidance contained in the Code of Conduct and Guidance. As a notable example, provisions of the Energy Policy Act of 2005 regarding radiation source protection incorporated key provisions of the Code of Conduct and Guidance, and NRC rules implementing export

controls for high-activity radioactive sources became effective December 28, 2005. As a result, the U.S. became the first country to put into place new export controls for radioactive sources, fulfilling G-8 commitments and enabling the U.S. to lead by example.

The Department of State supports and promotes IAEA programs that provide technical and regulatory assistance for the development and strengthening of national infrastructures for the life-cycle management of radioactive sources. These include the Model Project on Upgrading Radiation Protection Infrastructures (Model Project) and the Regulatory Authority Information System (RAIS). RAIS provides regulators with the capability to track radioactive sources, licenses, qualifications of authorized users, and occupational dose records. RAIS offers developing nations an established platform that can be tailored to individual needs; is supported by IAEA training and technical assistance; is available in multiple languages; and is currently being adapted for internet-based use. Since 2003, State has provided \$1.14 million to the IAEA for upgrading RAIS software and training.

The Department of State also supports and promotes IAEA services that help Member States evaluate their current status and identify gaps in meeting international benchmarks for radiation protection infrastructures and the safe and secure management of radioactive sources. The Department encouraged the revision of the Agency's existing Radiation Safety Infrastructure Appraisal (RaSIA) program to extend its scope to security of radioactive sources. The resulting Radiation Safety and Security of Radioactive Sources Infrastructure Appraisal (RaSSIA) protocol provides countries with much needed missions led by the IAEA to assess the adequacy of regulatory infrastructures applicable to the security of sources. Department of State, along with Department of Energy support, have helped the IAEA conduct in excess of 60 such missions to Member and Non-Member States since 2004.

The Department of State monitors illicit trafficking of radioactive materials and serves as the official U.S. point of contact for the IAEA Illicit Trafficking Database.

One way to gauge the effectiveness of efforts to secure radioactive materials is through the evaluation of reports of illicit trafficking. The Department leads an interagency effort to track and coordinate responses to nuclear and radiological trafficking. The group reviews information reported in a number channels, and one unique source of data on radioactive materials outside legitimate control is the IAEA Illicit Trafficking Database Program (ITDB). The Department, which is the USG point of contact for the program, is working with the interagency to make the ITDP a more robust and effective tool for reporting illicit-trafficking related information so that governments can better identify the potential threats associated with nuclear and radioactive materials outside legitimate control.

The ITDB also provides a useful information source to direct U.S. radiological assistance programs. Overall, incidents confirmed to the ITDP show an increase in radioactive sources outside legitimate control. However, with the increase in deployed radiation

detection equipment worldwide and greater participation in the ITDP, it remains to be seen if this increase is real or an artifact of better reporting and tracking of radioactive sources.

The Department of State provides leadership for establishing U.S. policy on IAEA radiological security guidance and programs.

Department of State oversees IAEA activities on radioactive source security and employs two mechanisms to influence IAEA activities in this area. State co-chairs, with DOE, the standing Subcommittee on Nuclear Security that feeds directly into the IAEA Advisory Group on Nuclear Security (AdSec). State also coordinates the development of U.S. policy positions on guidance documents. U.S. government policy positions are transmitted through the U.S. Mission in Vienna via formal delegation guidance, letters, and other communications.

As an example of this work, the Subcommittee on Nuclear Security, through the U.S. Mission in Vienna, pressed for the IAEA to accelerate its efforts on source security and develop a formal process for the preparation of IAEA security documents. As a result, the Agency has since proposed as part of its Nuclear Security Program for 2006 - 2009 a new Nuclear Security Series and review process for the preparation of publications to provide IAEA Member States with recommendations and guidance on best practices for developing, implementing and maintaining effective programs for providing security for radioactive materials. State has worked closely with DOE, NRC, and other technical agencies to ensure that documents produced as part of IAEA Nuclear Security Series are consistent with existing legal and policy instruments of the international nuclear security regime, including the Convention on the Physical Protection of Nuclear Material, the United Nations Security Council Resolution 1540, and the Code of Conduct on the Safety and Security of Radioactive Sources.

The Department of State coordinates all U.S. funding provided to the IAEA for radiological security related work.

The Department of State has the lead for coordinating all U.S. funding provided to the IAEA, the primary international organization for coordinating multilateral radiological security activities. The Department of State, in close collaboration with DOE, has urged the IAEA to improve coordination of security related activities and funding from donor countries. The U.S. is now seeing results from this effort in the form of tangible improvements in IAEA coordination.

Notably, at two Major Donor meetings in 2006, the U.S. and others urged the IAEA to set priorities for its Nuclear Security Plan (NSP), establish metrics to gauge progress, and assume a greater coordination role for physical protection activities. As a result of these efforts, the IAEA is now creating a country-by-country matrix of activities being conducted by each Member State, the European Commission, and the IAEA. This information exchange will enable Donors to the IAEA Nuclear Security Fund to better utilize and leverage activities and resources. In keeping with this progress, the next

Major Donor meeting will focus on priorities for activities, including radiological security efforts, conducted under the NSP.

The Department of State provides diplomatic support to and oversight of technical agencies when conducting radiological security work in foreign countries.

While State maintains a central role in setting a consistent, long-range, and sustainable course through multilateral instruments and international programs, the technical agencies clearly have the lead for implementation and day-to-day oversight of assistance projects. DOE has the resources and technical expertise for implementing on-the-ground radiological security work in foreign countries. NRC, as the domestic U.S. nuclear regulatory authority, maintains the technical and legal expertise related to the licensing and control of radioactive sources.

However, State provides diplomatic support to the technical agencies, if requested and needed, to facilitate international radiological security efforts. In terms of oversight, State also monitors official U.S. travel and maintains close contact with DOE and other agencies to ensure that USG actions abroad are informed by U.S. foreign policy and consideration of sensitivities associated with a specific country. State also provides input to DOE for the prioritization of work by country and region on a number of projects. As part of this collaboration, DOE provides briefings to State's country desks and regional offices to update the Department and its embassies and missions on ongoing and planned activities in countries and regions of interest. In support of State's efforts, DOE also has offered to call attention to the Code of Conduct and import/export Guidance during assistance missions to countries that have not made a political commitment to implement these international guidelines.

The Department of State provides bilateral assistance to countries for the establishment or enhancement of a sustainable infrastructure for the safe and secure management of radioactive sources.

The Department of State Bureau of International Security and Nonproliferation manages the Nonproliferation and Disarmament Fund (NDF) to conduct the development, execution and implementation worldwide of carefully selected projects to advance proliferation threat reduction and disarmament goals. The NDF has funded projects that enhance security for high-risk sources in Iraq and Ukraine.

Strengthening Radiological Security in Iraq

In September 2005, GAO published a report entitled Radiological Sources in Iraq [GAO-05-672], which describes in detail U.S. efforts to enhance radiological security in Iraq through the establishment of an effective regulatory authority to ensure a native capacity for locating, recovering, and securing radioactive sources that remain outside of regulatory control. This program continues to represent a model for interagency cooperation. This work also represents a success story resulting from the establishment of a functional independent government agency in Iraq.

A project funded by the NDF has provided training and equipment essential for the establishment of a regulatory authority in Iraq to provide for the safe and secure management of radioactive sources. The rapid standup of the Iraqi Radioactive Source Regulatory Authority (IRSRA) immediately following the June 2004 transfer of authority allowed for preservation of search and recovery capabilities established under the Coalition Provisional Authority using staff from the Iraq Ministry of Science and Technology (MoST). From the inception of IRSRA, DOE has also provided equipment and training in Jordan and elsewhere. DOE has provided extensive security related training to Iraqi personnel. DOE has also trained and equipped border control personnel to screen vehicles for radioactive materials at the twenty major Iraq border control points. NRC and DOE experts, in cooperation with the IAEA, have provided guidance and direction to IRSRA with respect to development of regulations in line with international standards.

As a result of State Department led efforts, Iraqi engagement on radioactive source control has been exemplary, with an early and notable political commitment to the IAEA Code of Conduct. IRSRA and MoST report that hundreds of missions to search for abandoned and vulnerable radioactive sources have been conducted by the MoST teams, including a recent sweep of Sadr City. As an example of ongoing progress, during the week of 12 March, the Chairman of IRSRA and the Director General of MoST (the agency managing the radioactive source field survey teams) will be in Washington., D.C., to meet with personnel from State, DOE, NRC, and the IAEA to plan future work. During the week, the Chairman of IRSRA also plans to meet with NRC Commissioners.

Improving Regulatory Control of Radioactive Sources in Ukraine

State Department has provided direct support for the strengthening of regulatory infrastructures in support of radiological security to the Government of Ukraine through the Nonproliferation and Disarmament Fund (NDF). On November 17, 2003, the Under Secretary of State for Arms Control and International Security authorized NDF funding for the execution of a project (NDF Project 188) to establish key elements of a Ukrainian national system to improve long-term security of high-risk radioactive sources. This work was conducted in a manner that leveraged to the maximum extent prior U.S. and international assistance to the IAEA for promoting radioactive source controls. The project was formulated in consideration of foreign policy objectives and is consistent with the overall policy direction of the Department.

The Department considers the Ukraine project a success, both in terms of the execution and end result. The Ukrainian regulator is the ultimate customer for the project deliverables, i.e., a regulatory information system, training, and equipment for regional offices. Accordingly, State pursued an approach placing the responsibility for performance in the hands of the Ukrainian regulator, the State Nuclear Regulatory Committee of Ukraine (SNRCU), including the development of a mutually agreed action plan. This was done in close partnership with the DOE Attache in Kyiv, who agreed to work with the SNRCU in project implementation. As another example of interagency cooperation, the DOE Attache provided in-country oversight of project implementation to

ensure project objectives were met. The fact that the regulatory authority assumed full ownership of the project increases the likelihood that the tangible products of the project, regulatory tools and training, will be supported, maintained and utilized.

A key objective of the NDF project was to leverage U.S. support for related existing IAEA programs to the maximum extent possible. In this regard, Ukraine is using the IAEA Regulatory Authority Information System (RAIS) system for its regulatory tracking and management of radioactive sources along with other regulatory functions. As mentioned earlier, the U.S. has provided substantial support, including voluntary funds, to the IAEA for recent enhancements and upgrades of the RAIS system. The project is essentially complete, with only \$250,000 provided to the Ukraine regulator.

Initial RAIS training for Ukrainian staff is complete and all regional offices are equipped with furniture, computers, and software. All of this has been accomplished by the Ukrainians themselves.

The Department of State coordinates U.S. radiological security efforts under the President's Security and Prosperity Partnership initiative.

On March 23, 2005, President Bush, President Fox and Prime Minister Martin launched the trilateral Security and Prosperity Partnership of North America (SPP) to establish a common security strategy to better protect critical infrastructures and secure borders, among other things. Strengthening radiological security is one component of this cooperation. The Department of State coordinates radiological security efforts and works closely with the DOE, NRC, and the Department of Homeland Security (DHS) to take advantage of the SPP umbrella to advance common security interests and to minimize negative impacts on existing programs and relationships. I conclude with this example because it exemplifies the close and mutually beneficial cooperation among State, DOE, and NRC.

During the initial development of the SPP implementation plan, Department of State brought in DOE and NRC to help identify attainable and concrete radiological security goals in North America that would benefit from presidential-level commitments and greater cooperation with Canada and Mexico. Building on existing working-level relationships between DOE and NRC with counterparts in Canada and Mexico, State was able to engage Canadian and Mexican authorities on a bilateral basis to examine these mutual goals and discuss avenues for furthering them. Significantly, such discussions led to an offer by Mexico to host the first trilateral SPP meeting on nuclear and radiological security later this month. Thus, through close interagency cooperation, by leveraging a Presidential-level initiative, and cultivating DOE and NRC expertise and working-level relationships, the U.S. is successfully cooperating on a regional basis to advance and accelerate our mutual radiological security goals for North America.

CLOSING

Effective U.S. action to strengthen lifecycle control and increase security over radioactive sources requires extensive coordination here at home with our interagency colleagues and abroad with partner nations, the IAEA, and other international organizations. The Department of State therefore serves a central role ensuring that U.S. international efforts on radiological security are consistent with and informed by U.S. foreign policy and relations. The Department also provides leadership on a number of multilateral efforts that provide international benchmarks for national regulatory and legal infrastructures required for sustainable and effective control of radioactive sources throughout their entire lifecycle. The Department also supports key IAEA programs, services, and tools to evaluate progress and determine gaps in national infrastructures and to fill those gaps in order to meet international standards for ensuring the safe and secure management of radioactive sources. In doing so, the Department of State relies heavily on the resources, expertise, and experience of the Department of Energy, the Nuclear Regulatory Commission, and other U.S. agencies.

Significant progress has been made by the United States to enhance control over radioactive sources around the world and to thereby reduce the risk of a radiological dispersal device being used against our nation or our interests. This progress has been achieved through action at all levels, from high-level political and diplomatic efforts to on-the-ground security work conducted in foreign lands. Given the scale and importance of the task at hand, U.S. international efforts to strengthen radiological source security has required and resulted in greater coordination within the U.S. government, with each agency providing complementary and essential capabilities. Continued success on international radiological security will, accordingly, require continued close collaboration among the key U.S. government agencies in partnership with the international community.